



Photographs by Michelle V. Agins/The New York Times

The oldest surviving copy of important mathematical works of Archimedes was sold at auction in New York.

Archimedes Text Sold for \$2 Million

By MALCOLM W. BROWNE

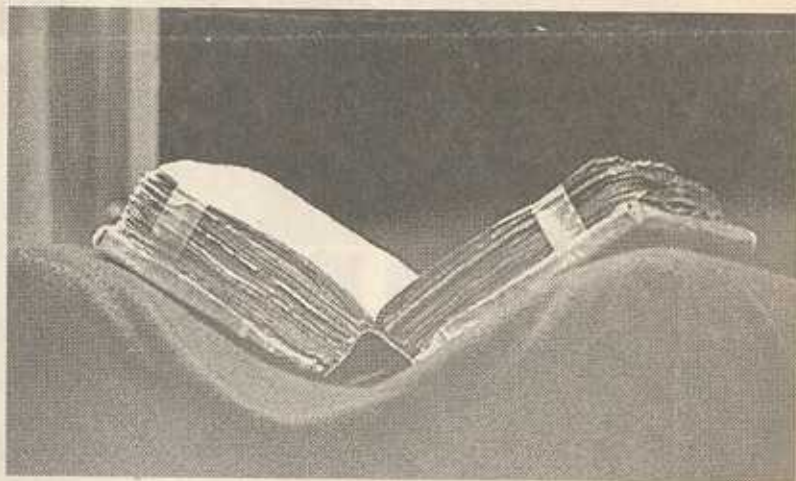
A scorched and moldy volume of thousand-year-old pages — the oldest surviving copy of important mathematical works of Archimedes — was sold at auction yesterday for \$2 million, double the expected price.

The winning bid, at Christie's of New York City, was made by Simon Finch, a London book dealer, who said he had acted on behalf of an unidentified private American collector. The seller was identified only as a French family that acquired the volume in the early 1920's.

The volume includes copies of two of Archimedes' greatest works: "Method of Mechanical Theorems," which includes ideas startlingly reminiscent of modern calculus, and "On Floating Bodies," which puts forth his laws of flotation.

They are in palimpsest form: that is, the original inked copy of Archimedes' texts, written by a 10th-century scribe, was washed off by Byzantine monks in the 13th century so that the expensive vellum on which it was written could be reused. The Archimedes text was made almost illegible by the washing and then covered by the later religious text. Christie's commissioned experts to examine a few of the 174 pages of the manuscript, bound in modern times into a book 7½ by 6 inches, illuminating them with ultraviolet light and using computer programs to enhance the Archimedes text. The project was strikingly successful. Mathematicians believe that the improved text may reveal unsuspected nuances in Archimedes' scientific thinking.

The new owner of the palimpsest (pronounced PAL-imp-sest) will pay \$2,202,500, including commissions and taxes, and may soon face a lawsuit from the Greek Orthodox Patriarch of Jerusalem. Late Wednesday, Simos C. Dimas, a New York lawyer representing the Patriarch, sought an injunction in Federal District Court to block the auction and lay claim to the volume, on grounds that



Ownership of the Archimedes manuscript is being contested by the Greek Orthodox Patriarch of Jerusalem on grounds that it was stolen.

A reported pledge not to limit access to an ancient manuscript.

it was stolen some time after World War I. The judge denied the motion, and Christie's announced that "our consignor has clear title to sell the manuscript."

Mr. Dimas, who attended the auction, said his legal challenge would continue.

"Under New York law, stolen property cannot be sold, even if the seller himself is not the thief," he said. "This palimpsest is part of the patrimony of the Patriarchate."

Chris Rorres, a professor of mathematics at Drexel University, in Philadelphia, and an Archimedes scholar who attended auction, expressed disappointment with the sale.

"It is the worst possible outcome," Mr. Rorres said. "It means that this

priceless work may once again disappear into obscurity, cut off from scholars who could mine its riches."

But Felix de Maraz Oyens, a Christies expert on ancient manuscripts, offered some consolation. Mr. de Maraz Oyens, who knows the identity of both the seller and buyer, predicted that scholars would be given access to the work.

"The buyer told me he would allow such access," he said. "I cannot tell you who it is, except to say that it is not Bill Gates."

William H. Gates, chairman of the Microsoft Corporation, has bought several valuable manuscripts, including the Leicester Codex, a notebook of Leonardo da Vinci.

Archimedes, the greatest mathematical genius of antiquity, is particularly admired by modern mathematicians for having devised a method that prefigured the invention of calculus for computing relationships between geometrical objects.

His laws of flotation dictate the design of ships and define the concept of specific gravity.

Archimedes was slain by a Roman soldier in the sack of Syracuse in 212 B.C.