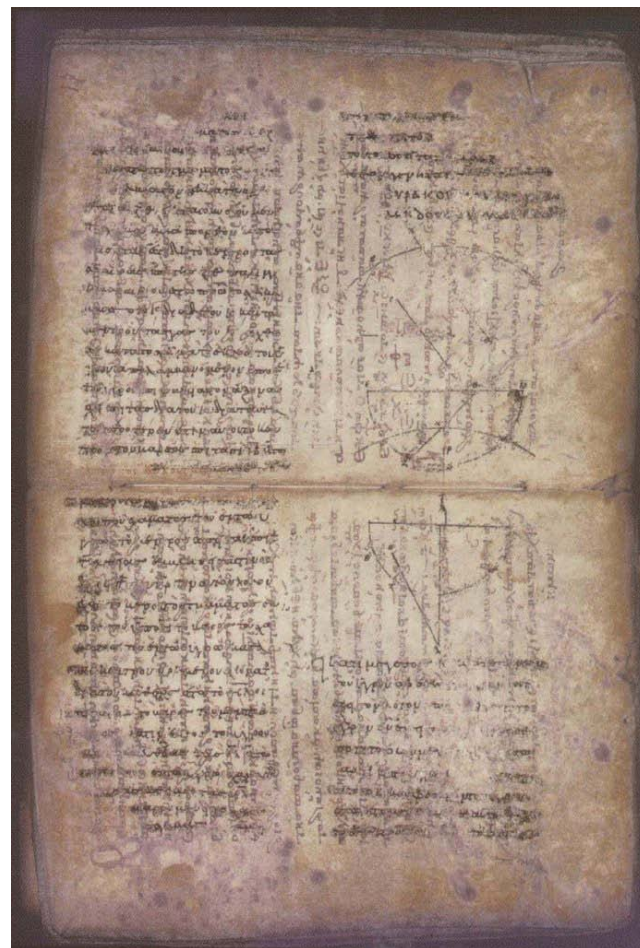


The Archimedean Palimpsest

V. Frederick Rickey
West Point



Archimedes (died 212 BCE)





The Archimedes Palimpsest

29 October 1998

9058 - EUREKA

2:00 pm

Christie's is pleased to inform its clients that the Federal Court in New York last night denied a motion by the Greek Orthodox Patriarchate of Jerusalem to enjoin this afternoon's sale of the Archimedes Palimpsest. The judge ruled that under the applicable law our consignor has clear title to sell the manuscript, and the sale will take place as scheduled.



CHRISTIE'S

AUCTION RESULTS

The Archimedes Palimpsest

Thursday 29 October 1998

Sale No: 9058 Sale Code: EUREKA

New York Park

502 Park Avenue

New York

New York 10022

Telephone: (212) 546 1000

The following prices in US Dollars include the buyer's premium and are rounded to the nearest dollar. Lots which did not sell are not shown.

On the date of the sale, exchange rates were approximately as follows: \$1 = £ .60, DM 1.65, SFr 1.35, FFr 5.55, Yen 117.56, Lira 1638.00
Christie's is not responsible for typographical errors or omissions.

Total sold (including premium): \$2,202,500

Lot	Price	Lot	Price	Lot	Price	Lot	Price	Lot	Price	Lot	Price
1	2,202,500										

Purchased by Simon Finch for a private American buyer,
not Bill Gates.

Discovering Archimedes

- 1848 Tischendorf
 - 1983 Nigel Wilson
- 1899 Papadopoulis-Kerameus
 - H. Schöne
 - Johann Ludwig Heiberg, 1906
- 1907 Published in Greek and Latin
- 1909, 1912 English translation
 - T. L. Heath, D. E. Smith
- 1910, 1913, 1915 Second Greek edition.

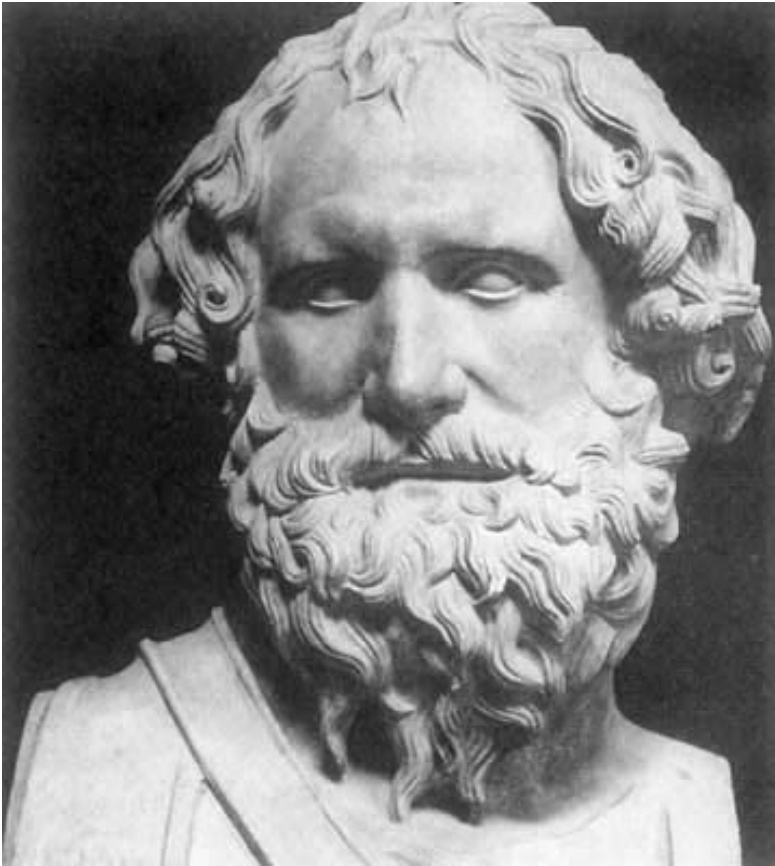
October 29, 1998

- A 10th century codex is sold for \$2,000,000 to an anonymous buyer
- It contains the unique copies of two works by Archimedes:
 - The Stomachion
 - The Method
- The Walters Art Museum in Baltimore is conserving the manuscript

Extant works by Archimedes

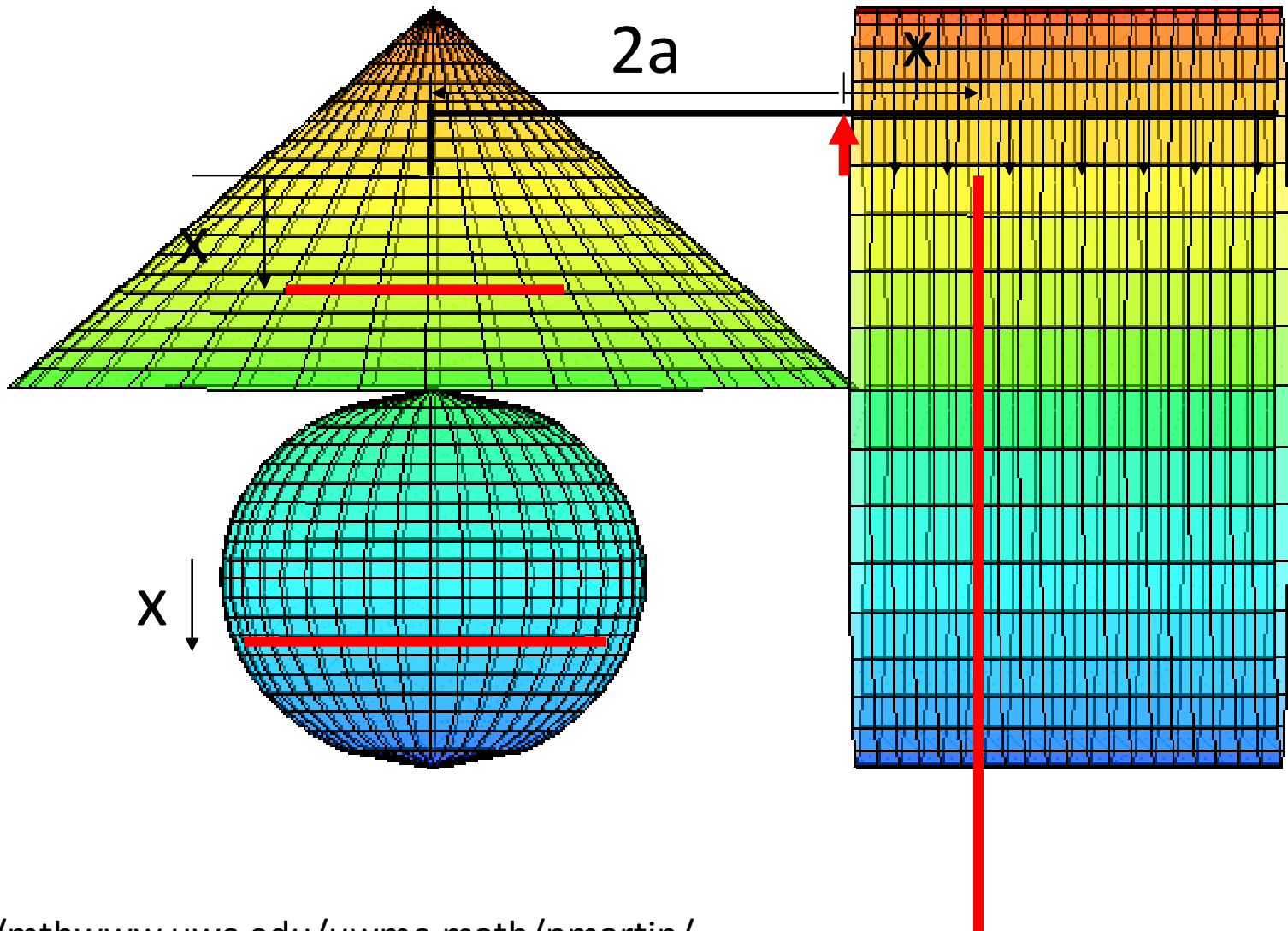
- *On the Sphere and the Cylinder*
- *Spiral*
- *Conoids and Spheroids*
- *Measurement of the Circle*
- *The Sand Reckoner*
- *Planes in Equilibrium*
- *Quadrature of the Parabola*
- ***The Method***
- *On Floating Bodies*
- *The Cattle Problem*
- ***Stomachion***

Archimedes' Method



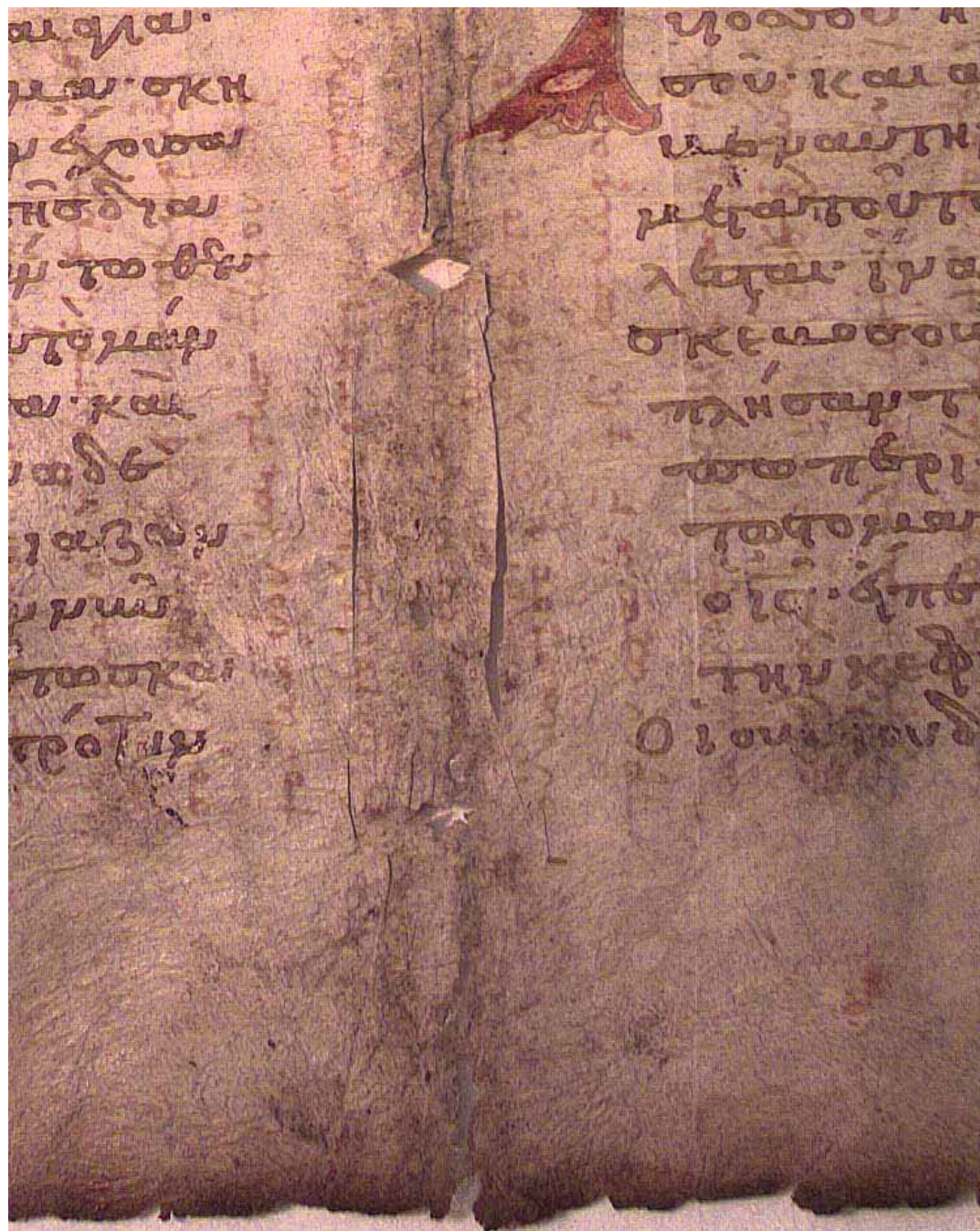
*certain things first
became clear to me by a
mechanical method,
although they had to be
proved by geometry
afterwards*

The balancing act involves thin layers of the cone, sphere and the cylinder.



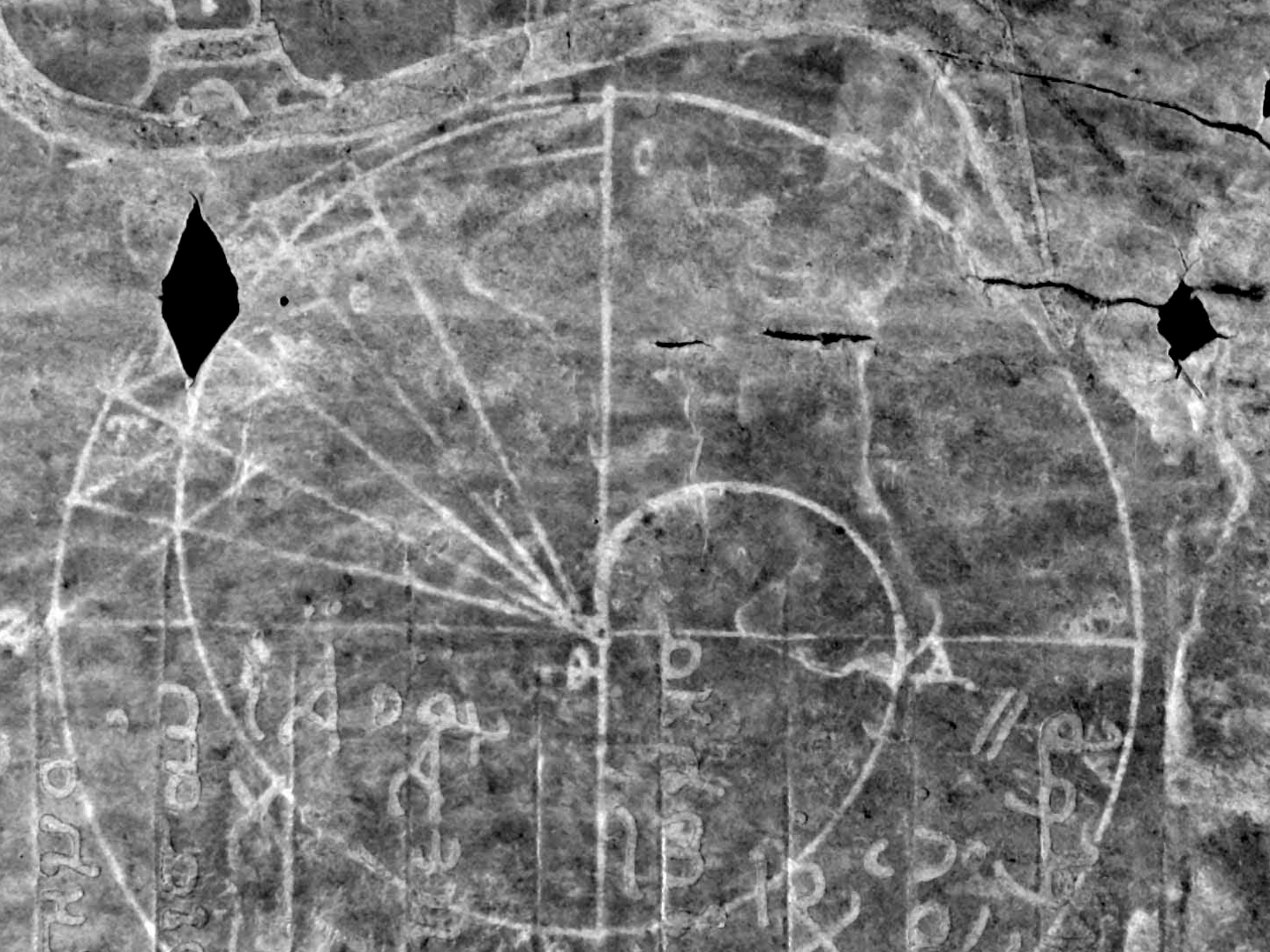
The Archimedes Palimpsest





The Repaired Text

- Do you see any mathematics?



Seeing the Text of Archimedes

- Multispectral imaging
- Magnetic imaging
- Confocal microscopy
- The Stanford Accelerator

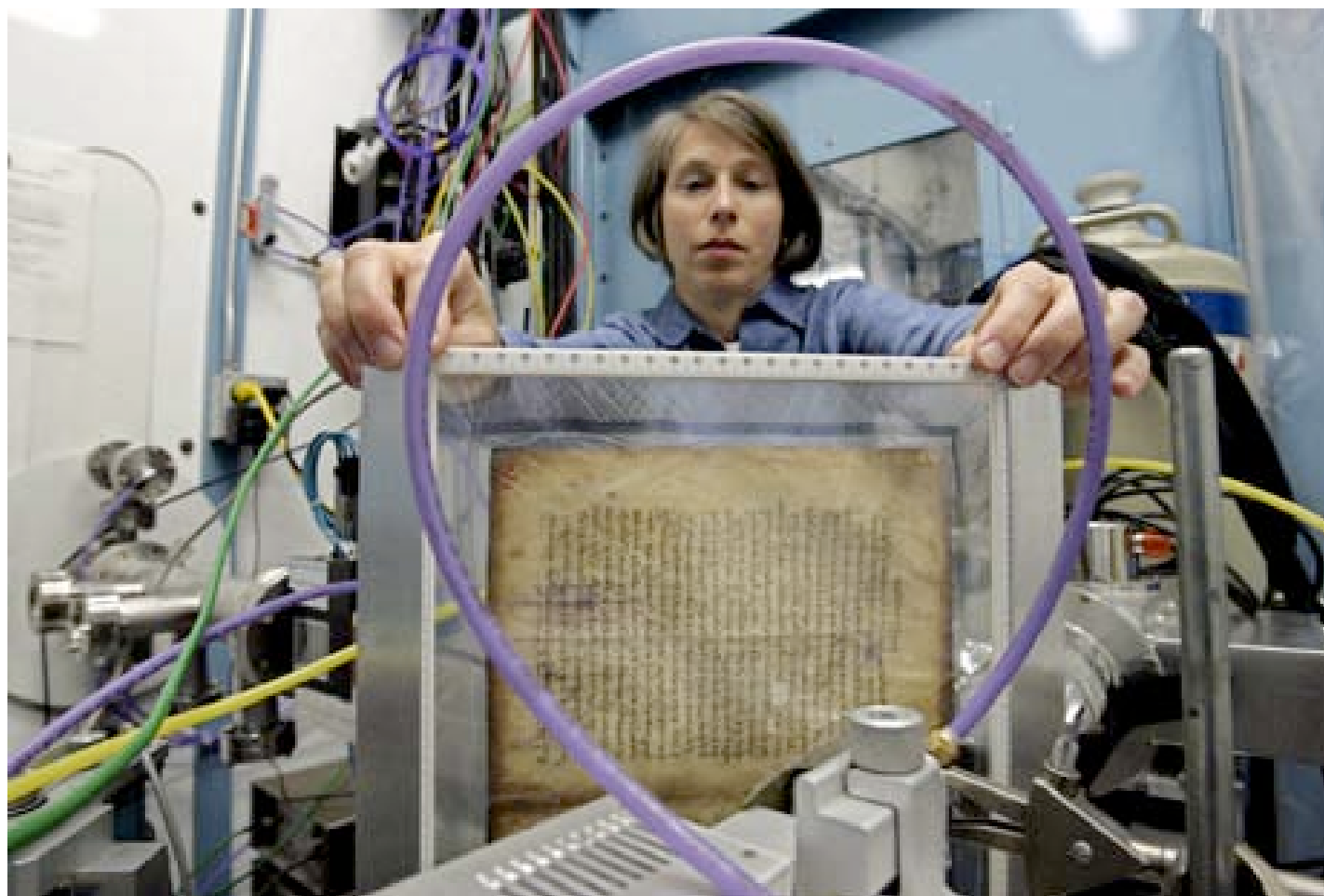


[illegible]



Handwritten text in a cursive script, likely a medieval or early modern language. The text is arranged in several lines, with some words written in larger, more decorative letters. The parchment is aged and shows signs of wear.

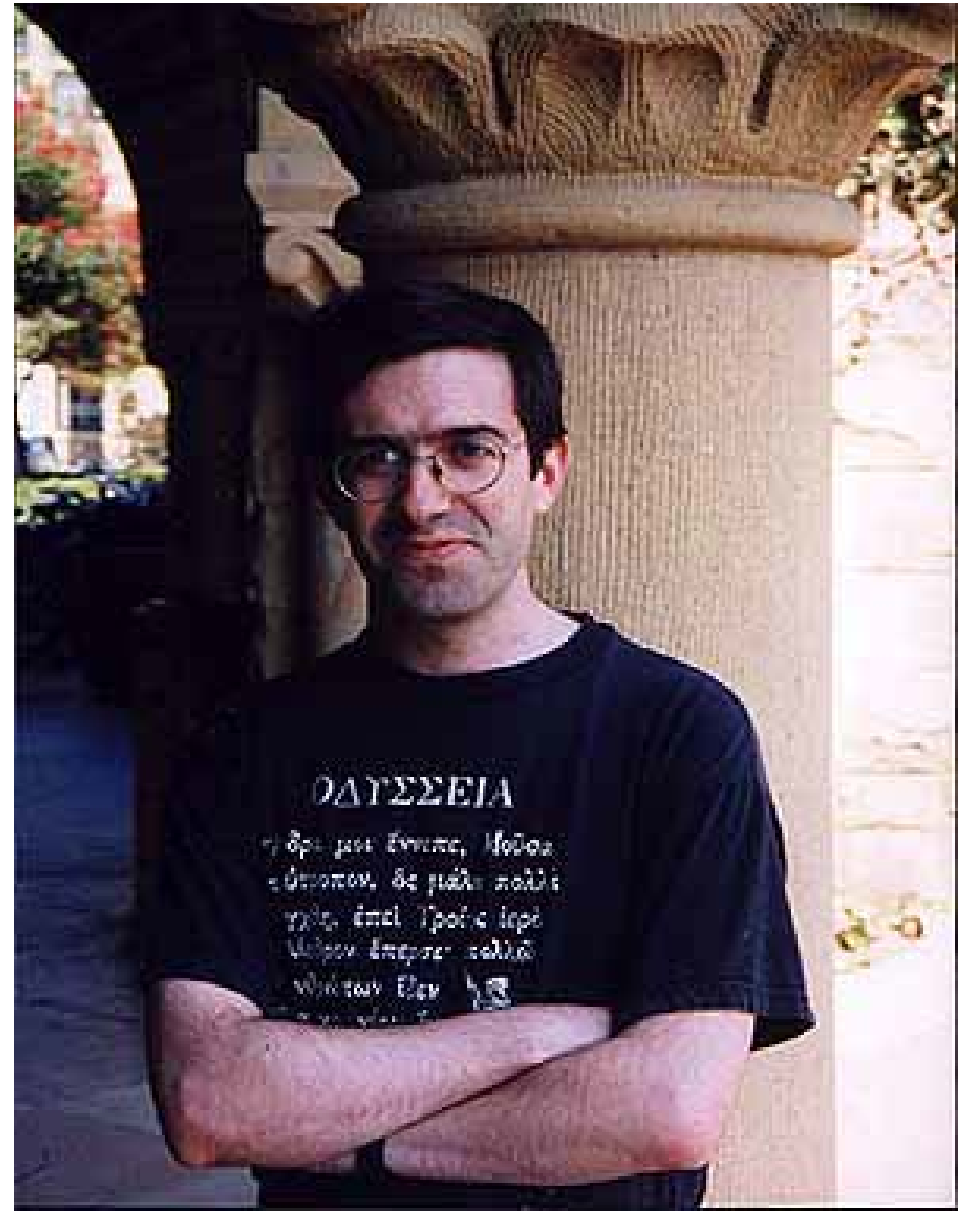
Handwritten text in a cursive script, likely a medieval or early modern language. The text is arranged in several lines, with some words written in larger, more decorative letters. The parchment is aged and shows signs of wear.





Reviel Netz

- Professor of Classics at Stanford
- The Works of Archimedes: Translation and Commentary
- An editor of The Archimedes Palimpsest





Nigel Wilson

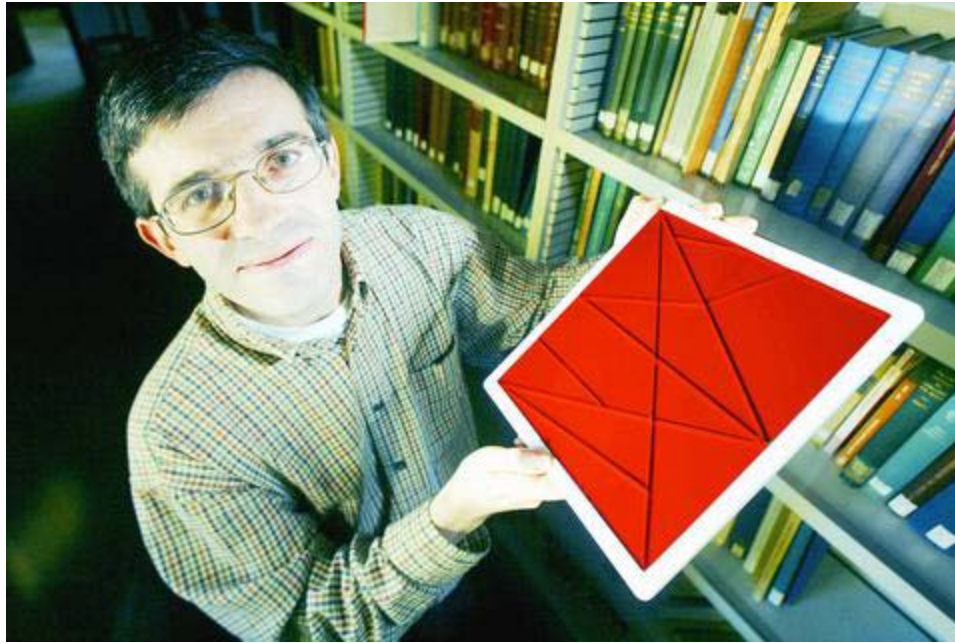


Abigail Quant and Will Noel



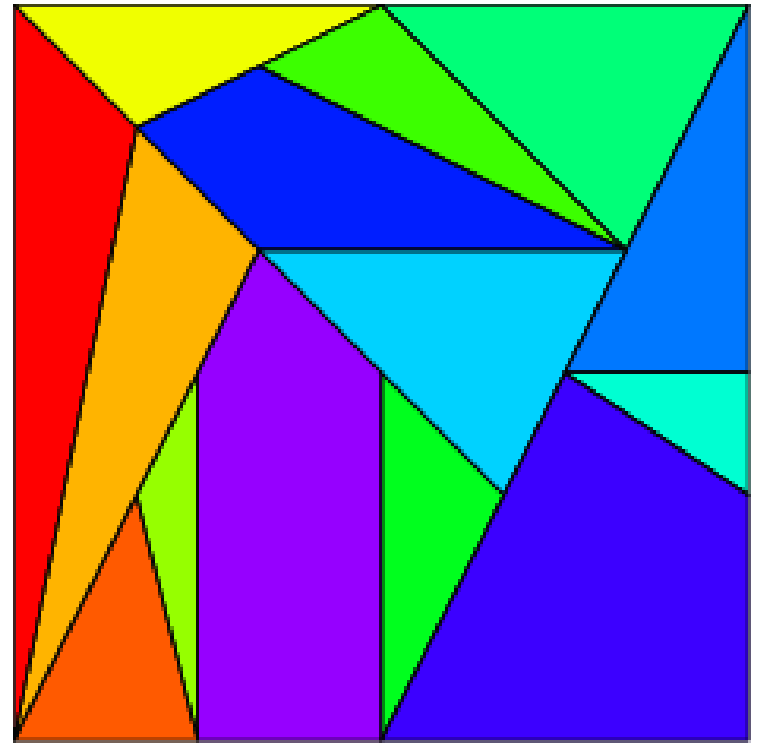
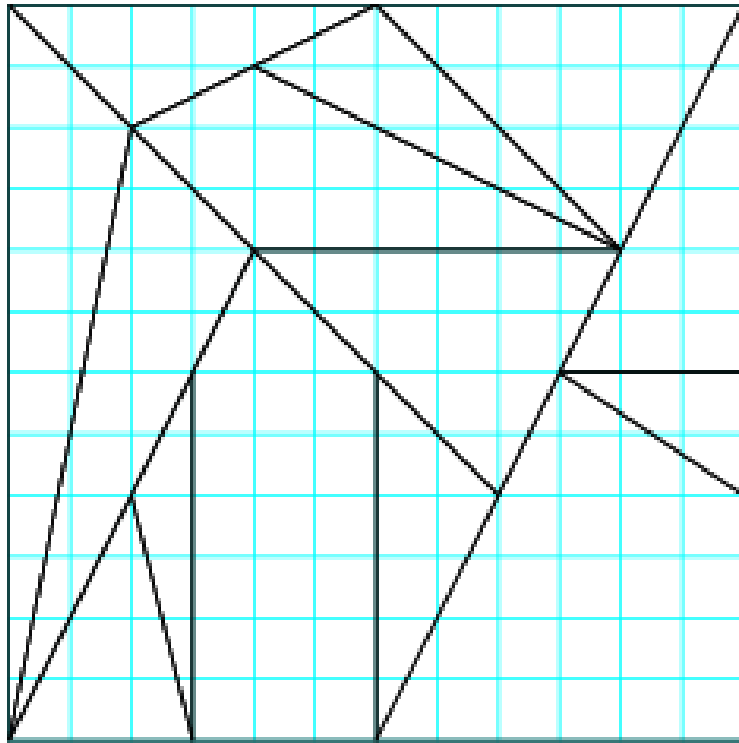
Natalie Tchernetska

The Stomachion



“Our smoke is no joke.” — Barbecue Joe

How many ways can you rearrange the pieces of the stomachion?



Solvers of the stomachion

- Persi Diaconis and Susan Holmes
- Ron Graham and Fan Chung
- There are 17151 solutions
- But only 268 modulo rotations and reflections
- <http://www.math.ucsd.edu/~fan/stomach/>

The Socratic philosopher
Aristippus, who was
shipwrecked on the
shores of Rhodes, saw
geometric diagrams, and
exclaimed to his friends:

Fear not, for I see the
vestiges of men.

-- Vitruvius

Archimedes,

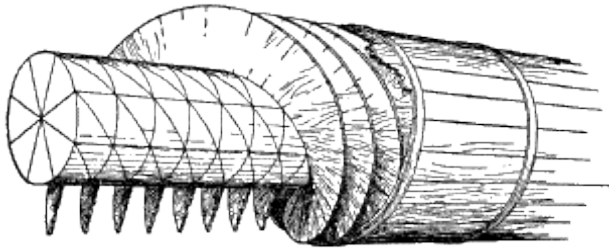


*Give me a place to stand and
I will move the earth.*

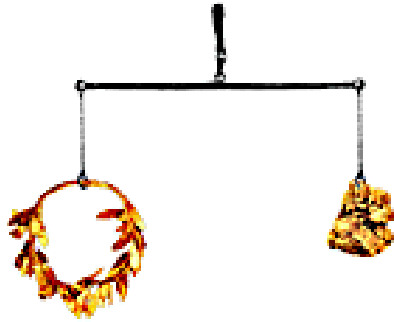


Wall painting in the Stanzino delle Matematiche in the Galleria degli Uffizi (Florence, Italy). Painted by Giulio Parigi (1571-1635) in the years 1599-1600.

The Archimedes' Screw



Hiero's II Golden Crown



- King Hiero II, 306?-215 BC
- The story of the bath
- Specific gravity =

weight of object .
weight - same volume water



RUBES LEIGH RUBIN



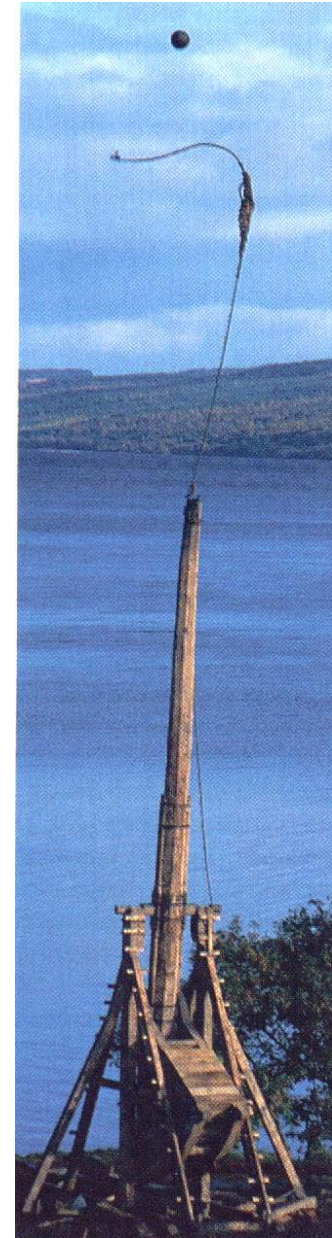
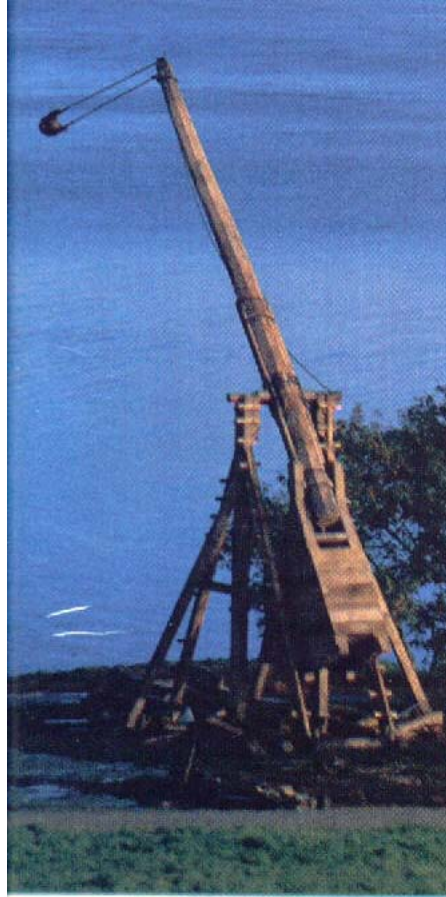
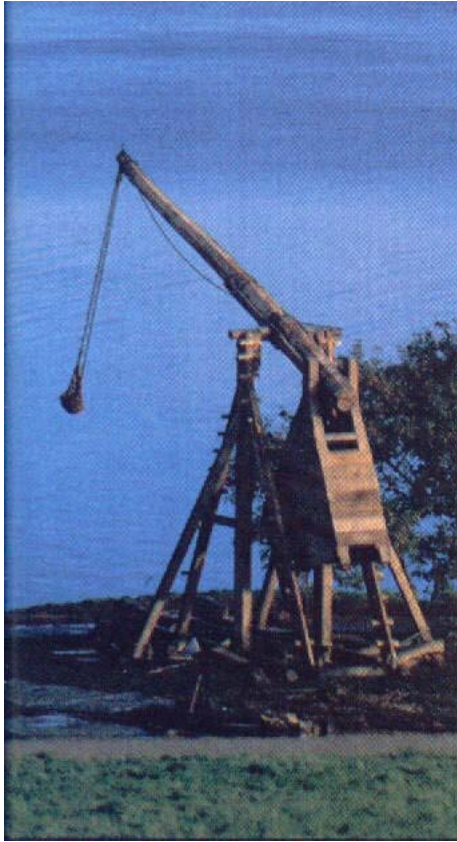
Democrat & Chronicle, 2/1/98

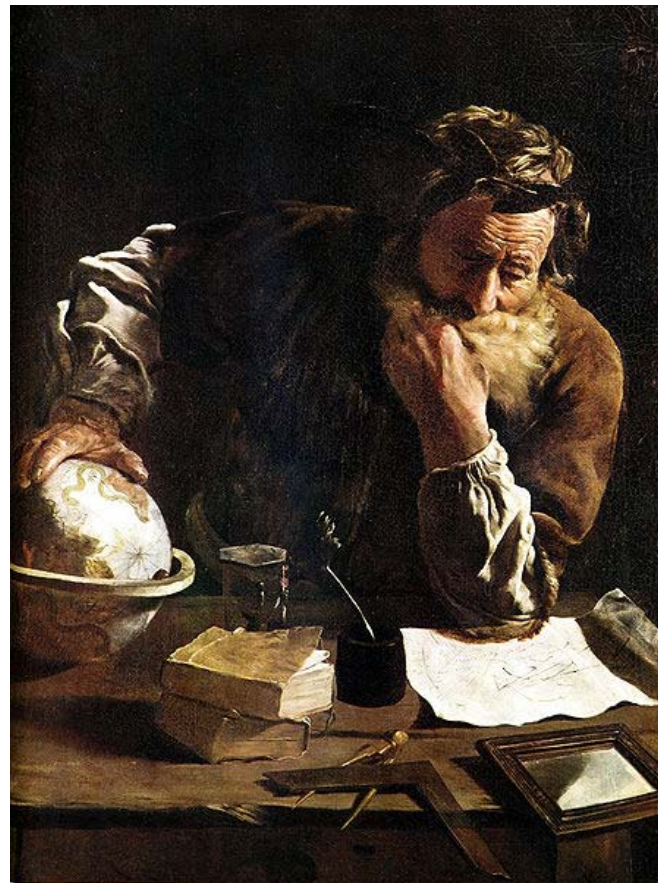
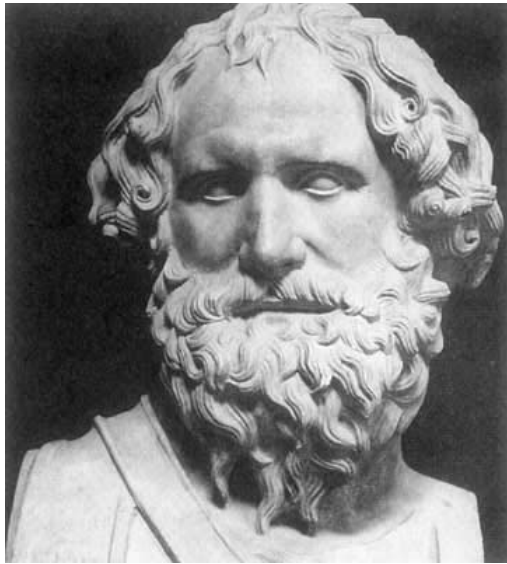
The Defense of Syracuse



- Syracuse attacked by Marcellus 215 - 212
 - catapults
 - grappling cranes
 - mirrors
- Archimedes killed

A Medieval Trebuchet

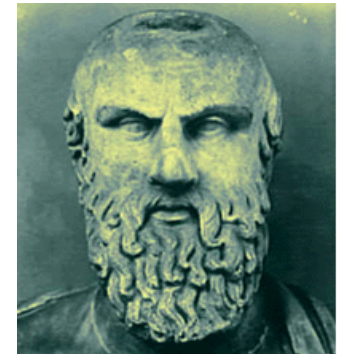




By Domenico Fetti, 1620



The Fields Medal



By Jusepe de Ribera, 1630



Oeuvres d'Archimedes, 1807



19 October 1965

The London Times reports that an archaeologist has located what he believes to be the tomb of Archimedes.





Cicero discovering the tomb of Archimedes (1797) by Benjamin West



Cicero Decouvrant le Tombeau d'Archimede,
by Pierre Henri de Valenciennes (1750-1819)



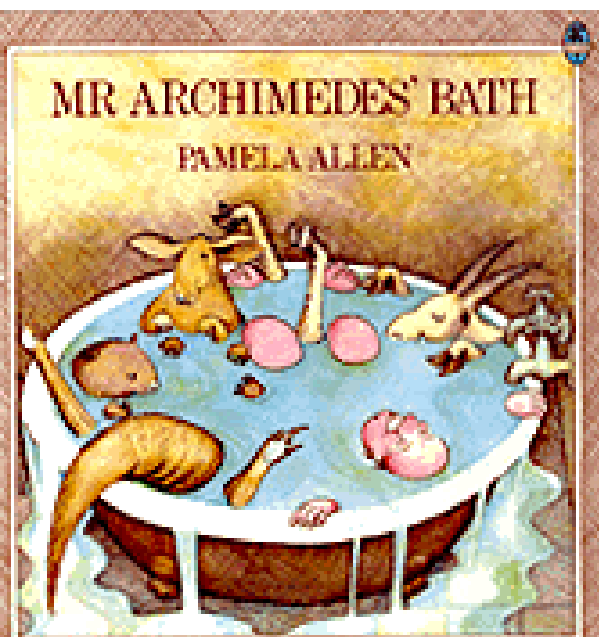
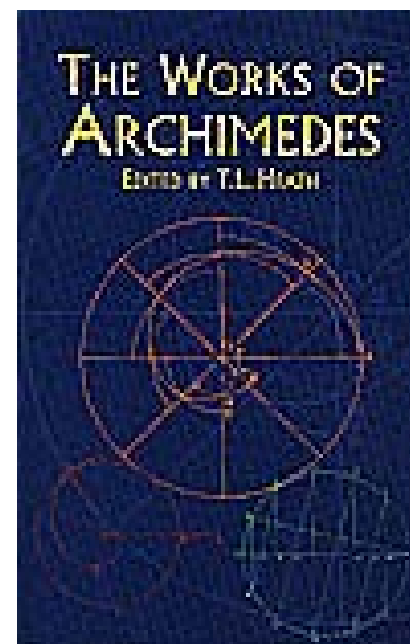
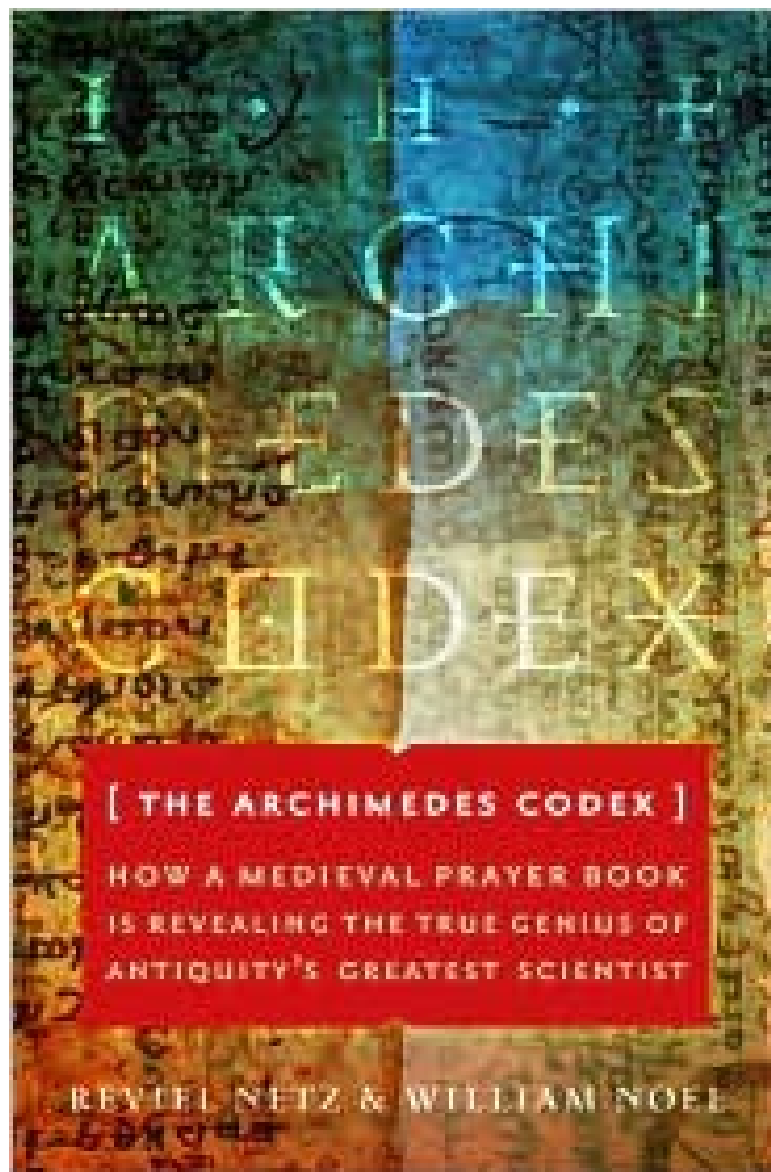
Cicero discovering the tomb of Archimedes - Painting by Martin Knoller

ARCHIMEDES



E. J. DIJKSTERHUIS

With a new biographic essay
by Walter R. Kater



Archimedes: The Palimpsest Project

At 2pm on October 29th, 2008, ten years after the Archimedes Palimpsest was purchased by the present owner, the core data generated by the project to conserve, image and study the manuscript, was released on the web:

<http://www.archimedespalimpsest.org/>

A Floating Body



Will Noel

