The Vinland Map: Real or Fake?

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Importance

• If Real...
  — Proves the Vikings were in Greenland and North America as early as the 11th Century
  — Could have been used by Christopher Columbus to persuade Isabella and Ferdinand to pay for his voyage

• If fake...
  — Get rich quick scheme
  — Lots of money has been poured into the investigation
  — A very good forgery by a skilled craftsman
How the Map Became Famous

- Ferrajoli
  - Italian Book Dealer
  - La Seo, Saragossa
- Witten
  - Original Purchaser
- Mellon
  - Donated to Yale University
The Vinland Saga

- 1956
  - Purchased by Whitten and sold to Mellon
- 1965
  - British National Museum Curators and Yale University Librarians publish *The Vinland Map and the Tartar Relation*
  - Decide that the map is real
- 1974
  - Walter McCrone’s testing on the ink proves the map to be a fake
- 1996
  - Yale sponsors a conference on the map
  - The second edition of *The Vinland Map and the Tartar Relation* is published
  - The map is once again declared real
The Vinland Saga, Continued

- 2001
  - Claimed the map is a fake
- 2002
  - Testing on the parchment prove that the parchment is from 1440s
- 2003
  - Analysis of Medieval ink making methods
The Vinland Map Conference

• Questioned the presenter of the map, Laurence C. Witten
• Scholars from all different universities and interests came to the conference
• They raised a lot of questions about the origin of the map
Laurence Witten

- He got the map from an Italian book seller
- Did tests on the map himself, and found no reason to doubt the map
- His friend bought an old manuscript: had the same watermarks and holes as the Vinland Map
- Sells the map, thereby authenticating it
Biggest Questions

- Who did the bookseller get the book from?
- Why won’t he tell people who the owner was?
- What were the tests he did by himself?
Ink Analysis

• The British Museum first analyzed the map in 1967
• Ink of Tartar Relation and the Speculum Historiale versus Vinland map ink during ultra violet radiation
• Walter and Lucy McCrone first to claim the Vinland Map fake in 1974
Synthetic anatase has a distinctive crystalline form
Titanium had yet to be discovered in medieval Europe in order for an anatase
Synthetic anatase was not widely used until the early 20th century
Line Coloring

• Lines appear to be written in two layers
• Yellowish background layer
• Dark brown top coat
• Gives the effect of ink that has faded with time
Jacqueline Olin

- Scientist for the Smithsonian Institute
- Has argued for the Vinland map’s legitimacy since the map was found
- Recreated iron-gall ink that contained anatase
Parchment

• Parchment, not vellum
  – Difference between baby and adult animal skin
  – Yellowish and oily nature
• Had been cleaned
  – Uneven surface texture, pinprick holes
  – Not sure why or when
  – Also possible coating added
UV Fluoresce

- Emitted blue light
- Same line appeared throughout the parchment
- Ignored, ink was more important
A Palimpsest?

- When UV fluoresce was first used, other potential layers of writing were ignored
- Went back later using photography and UV light
  - Found no traces of elements
  - Found no pen indentations that did not match with present writing
Wormholes

- Nine wormholes, does include flaw in parchment
- Four and Four match up on either side
  - One matches with TR/Sepculum
  - Help prove that the works belong together
Dating

• Had trouble, no good methods available
• 2002-Donahue, Olin
  – Use AMS with a small portion of the parchment pulled off the sides
  – Determine it is from 1434±11 yrs.