

## A 'PROVEN' FAKE...DE-FAKED...!

Twenty-Two Years After Being 'Proved' A Fake, Experts Now Say the Vinland Map is Genuine After All...

In what may well prove a parallel case to that of the Turin Shroud, the Vinland Map, first identified as a mediaeval map of the Vikings' discovery of America, then seemingly decisively 'proven' a forgery by microanalyst Dr. Walter McCrone, has recently been reinstated as genuine after all.

The Vinland Map first surfaced from somewhat obscure origins in 1957 when a rare book dealer acquired it in Geneva and sold it to the wealthy American arts patron Paul Mellon, who gave it to Yale University. Its sensational feature was that as part of a larger map of the known world it showed to Greenland's west, and in roughly the location of present-day Newfoundland, a large jagged- looking island named 'Vinland' that seemed to confirm the Vikings' then still semi-legendary discovery of America. Eight years of scholarly research led to the conclusion that the map had originally belonged to an undeniably genuine fifteenth century manuscript, the Tartar Relation, and in 1965 this finding was published in a scholarly tome co-authored by R. A. Skelton, Superintendent of the British Museum Map Room, George R. Painter, the British Museum's Assistant Keeper of Printed Books, and Thomas Marston, Curator of Medieval and Renaissance Literature at Yale University. There seemed to be matching worm-holes to prove the map had belonged to the Tartar manuscript, and subsequent archaeological discoveries at L'Anse aux Meadows near Newfoundland's northernmost point confirmed beyond all reasonable doubt that Vikings had indeed reached America, and established a temporary settlement there around 1000 AD.

Then in 1972 Dr. Walter McCrone was invited to make a microanalytical study of the Vinland Map and its ink. He found that whoever drew it first used a yellow ink, then carefully added a black ink line on top of this. The yellow ink McCrone found to contain anatase, a crystalline form of titanium dioxide only developed in 1920. He therefore concluded the map to be a forgery, and as a result it became widely discredited, so that as recently as 1990 it featured alongside the full-size reproduction of the Shroud as one of the prime exhibits in the British Museum's Fake exhibition.

But now the tide has turned once more. As preliminarily reported in an earlier Newsletter, physicists at the University of California's Davis campus have used a powerful cyclotron to fire a harmless beam of protons through the map, generating X-rays from which all elements present in the ink and parchment can be almost instantaneously identified and quantified. According to Dr. Thomas Cahill, the physicist in charge of the project, the Vinland Map's ink contains only trace elements of titanium, readily consistent with a genuine mediaeval document. For instance, comparative analysis of the ink of an unquestionably genuine Gutenberg Bible revealed slightly greater quantities of titanium than on the Vinland Map. As remarked by Dr. Cahill: 'There is nothing about the chemistry or morphology of the Vinland Map that in any way makes it stand out from any of the parchments of that period that we have analyzed.' And according to Dr. George Painter, the sole survivor of the team who originally concluded the map to be genuine: 'The chemical constitution of the ink can no longer be used as an argument against

authenticity. On the contrary, it becomes instead a series of proofs of the map's entire mediaevality.'

On February 10 of this year Yale University Press held a symposium to launch the publication of a new, expanded version of the original, definitive book on the map. And according to Dr. Wilcomb E. Washbourn, director of American Studies at the Smithsonian in Washington, writing in the book's introduction, those who have been charging forgery (and here Dr. Walter McCrone would have been foremost in his mind), 'must now assume a defensive role and respond to those previously on the defensive. In an interview reported in the New York Times Dr. Washburn went on to state even more forthrightly 'I think the evidence is [now] clearly on the side of authenticity,' while John G. Ryden, director of the Yale University Press, has said that the decision to reissue the book has been prompted by the strong challenge to forgery claims.

Predictably, Dr. McCrone has been unconvinced by this overturning of his findings, and was uncompromisingly sanguine about being invited neither to contribute to the reissued volume on the Map, nor to attend the February Symposium on the subject. Outside this meeting he circulated a letter stating that had he been asked contribute a paper, this would have been entitled: 'The Vinland Map, Still a 20th Century Fake'. Anyone wanting to read his robust comments in full can find them via his home page on the Internet, in which he makes no bones about seeing the Vinland Map and the Shroud in a very similar light. In his words:

*The situation with the Vinland Map now becomes the same as with the Turin 'Shroud', another widely known and important relic that unfortunately I and my colleagues also found in the 1970s to be a fake. There we found, by identifying single submicrometer particles as the only coloured matter in the 'Shroud' image areas, two red pigments and a yellowed watercolour paint medium. The pigments red ochre and vermilion with the collagen tempera medium was a common paint composition during the 14th century, before which no-one had ever heard of the Shroud. The Bishop of the diocese of the church where it was first exhibited in 1356 wrote to the Pope saying he knew the artist who had painted it. We decided, based on our particle approach in 1979, that the Shroud was painted in 1355. In 1987, eight years later, carbon dating at three prestigious laboratories confirmed this by agreeing on a best date of 1325 plus or minus 65 years....*

From a scientific point of view these two problems were not difficult to solve, especially if one uses the polarized light microscope and other ultramicro techniques and instruments rather than trace analysis techniques on millimetre samples like PIXE, Cahill's instrument. No-one other than McCrone Associates working on these two fakes used light and electron microscopes. Instead, others looked for traces using good but inadequate and inappropriate trace analysis techniques. These are not intended for problems like the Vinland Map or the Shroud.

McCrone then goes on with an emotional plea for better recognition of the diagnostic value of his beloved polarized light microscope for work on objects such as the Vinland Map and the Shroud:

*I had hoped solving these problems using the polarized light microscope, then using other proper ultramicroanalytical instrumentation for confirmation would help the polarized light microscope recover its lost position in analytical chemistry. It has been cheated out of this position and is rapidly sliding into oblivion. This situation is now no longer funny, and I am looking for ways to redress this wrong. It seems to me a matter for the American Academy of Sciences. If a committee of scientists qualified in the physical methods of ultramicro particle analysis were appointed by the Academy, I am absolutely certain they would decide that the Vinland Map and the Turin 'Shroud' are masterpieces of art'.*

Though we may not necessarily agree with Dr. McCrone, his now rear-guard battle for what he sincerely believes to be right deserves our genuine respect and sympathy. However the question remains: if it has taken twenty-two years for the Vinland Map to be reinstated from having been scientifically 'proved' a fake, ***how long will it take for the Shroud?***