

REFLECTIONS

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FAREWELL TO THE VINLAND MAP

“The Vinland Map is a fake,” said Raymond Clemens, curator of early books and manuscripts at the Beinecke Rare Book and Manuscript Library of Yale University, in 2021. “There is no reasonable doubt here. This new analysis should put the matter to rest.” Clemens was referring to recent scientific tests that had shown the celebrated map to have been drawn with ink containing a titanium compound that was first used in inks in the 1920s, and other research conclusively disproving the identification of the map as a fifteenth-century product. Thus he put an end to a mystery that has perplexed geographers for more than half a century. Too bad, too, for the Vinland Map, if genuine, would have been a wonderful indicator of early European exploration of the New World.

We tend to speak glibly of Christopher Columbus as the “discoverer” of America. That is, of course, not so: Columbus indeed made a remarkable voyage, but what he found was the West Indies. He had no inkling that there were two huge continents nearby, and it remained for later explorers to “discover” North and South America, which, of course had been inhabited for thousands of years by the people Europeans called American Indians before any Europeans showed up.

Nor were Columbus and the rest of the fifteenth-century “discoverers” even the first Europeans to reach the New World. There is ample evidence, both literary and archaeological, that Norsemen under Leif Erikson crossed from Iceland to Greenland and thence to what is now Canada, and built a settlement they called Vinland, five hundred years before Columbus. Ruins that archaeologists have explored at L’Anse aux Meadows in Newfoundland are believed to be those of the Vinland colony.

The Vinland map, the existence of which was announced in 1957, seemed to prove that Vinland had actually existed, three years before the L’Anse aux Meadows discovery. It was bound into a slender volume called *Historia Tartarorum*, an account of the thirteenth-century visit of an Italian monk named John of Plano Carpini to the Mongol Empire founded by Genghis Khan. Plano Carpini’s journey, well substantiated by Vatican records, had been widely known since medieval times, and many early manuscripts existed. The big surprise of the volume was a map of the world bound with it, apparently dating from the fourteenth or fifteenth century, that showed not only parts of Europe, Asia, and Africa with reasonable accuracy, but also the island of Greenland and a large landmass to the southwest of it labeled *Vinlandia Insula*, the island of Leif Erikson’s Vinland. (Though Vinland actually was on the North American mainland—but the first settlers might not have been expected to know that.) If genuine, the map would prove that Norsemen had settled in the New World long before Columbus, and would be the earliest known map showing any part of the Americas.

The book, and its startling map, first turned up in the hands of a Spanish-Italian dealer named Enzo Ferrajoli, who tried to sell it to the British Museum. The museum was skeptical of the volume’s authenticity, though, and passed on it, whereupon Ferrajoli, who turned out to have a somewhat shady reputation (he later went to prison for stealing rare manuscripts from a Spanish library), sold it to an American dealer, Lawrence C. Witten II, who offered it to his alma mater, Yale University. Yale also had its doubts, in part because wormholes in the *Tartar Relation* and the map did not match, but soon afterward Thomas Marston, Yale’s curator of medieval

books, acquired another medieval manuscript that had matching wormholes showing that it evidently once had had the map in front and the *Relation* in back, thus explaining the wormhole mystery. That appeared to clinch things. A wealthy Yale alumnus put up the purchase price, believed to be three hundred thousand dollars, and Yale acquired the book. The British Museum, now having second thoughts, had R.A. Skelton, its keeper of maps, and George D. Painter, the museum's assistant curator of early books, examine it. They agreed that the book, and the map, were genuine. In 1965 Yale University Press released *The Vinland Map and the Tartar Relation*, a magnificently illustrated volume that made the existence of the Vinland Map known to the world. It is quite a production, too: a large-sized book, beautifully bound, that contains reproductions of the map itself, the manuscript of the Tartar Relation, various other medieval maps, and a group of geographical essays by no less a group of distinguished scholars than Skelton, Painter, and Marston, all of whom go far out on a limb in favor of the map's authenticity.

Great was the excitement. The *New York Times* made the finding of the map a front-page story. Here, after all, was the first proof of the Norse visits to the New World, known at that time only from the texts of thirteenth-century Icelandic sagas.

Immediately, though, doubts arose. In 1966 the Smithsonian Institution held a Vinland Map conference at which it was pointed out that Greenland was shown as an island, although in medieval times it was believed to be a peninsula attached to northern Russia, and it was not until the twentieth century that a successful circumnavigation proved its status as an island. The map appears to show such parts of Japan as Hokkaido and Sakhalin, the existence of which would not be known to Europeans for many years after the Vinland Map's presumed date of 1440 or so. Also the map referred to the Viking explorer Leif Erikson as "Erissonius," using a Latin form of his name not common until the seventeenth century. There were other problems, too: medieval monks generally used iron-gall ink, made up of iron sulphate, powdered gall nuts, and a binder, but early analysis of the ink of the manuscript showed that it was not the usual iron-gall kind, but something of a sort that no one had ever seen before.

Despite these objections, though, Yale and the British Museum, committed now, continued to cling to the belief that their little treasure was an authentic medieval manuscript, a genuine pre-Columbian product, apparently on the theory that it would be wonderful to think so. Many scholars disagreed. They wondered about the age of the parchment on which the map was drawn. There were certain troublesome anomalies about the ink other than its chemical composition. It was crumbling, said one expert who examined it, "in a very strange way that medieval map ink doesn't crumble." The map of Greenland itself, which Yale's curator of maps found "amazingly accurate," was just a little too amazing for some experts, who argued that certain details of it could only have been known by someone with access to a twentieth-century map.

The debate was intense and went on for years. In 1972 the map was subjected to new chemical study, and its ink appeared to contain anastase, a form of titanium dioxide that had first come into commercial use in 1923. That seemed conclusive for some opponents of the map's authenticity, and even Yale issued a statement uneasily suggesting that the map "may be a forgery." Yet others, notably a group at the University of California, continued to defend it, arguing that the anastase was a modern contamination from dust. In 1987 California scientists who had studied the map released a statement rejecting the 1973 findings as hasty and incomplete and insisting that the map was a genuine and significant medieval document.

Carbon-14 dating of the map performed in 1995 gave a date for the underlying parchment as between 1422 and 1445. But later examination revealed minute traces

of fallout from 1950s nuclear tests. Again the skeptics pounced. And so it went, year after year, “like a tennis match over twenty years or more,” said William Fitzhugh, the curator of North American archaeology at the Smithsonian National Museum of Natural History. “We need to put a lid on the can.” Still Yale clung to the diminishing hope that the map was genuine. In 2002 a Yale librarian said, “We regard ourselves as the custodians of an extremely interesting and controversial document and we watch the scholarly work on it with great interest.”

The lid finally went on the debate in 2018, when Yale permitted the map to be studied using scientific techniques that had not been available earlier. Two Yale library conservators, working with a team from Yale’s Institute for the Preservation of Cultural Heritage, gave the map and the accompanying manuscript the most thorough examination it had ever had. Radiocarbon dating proved that the parchment was ancient after all, dating from somewhere between 1400 and 1460, thus confirming earlier carbon-14 results. But macro X-ray fluorescence spectroscopy showed the presence of titanium everywhere in the lines of the map and in the accompanying text. That destroyed the theory of modern contamination. “With macro-XRF,” said a member of the Yale group, “we can generate a one-to-one scale elemental map of the map. That’s huge because it allows us to share a full dataset of the entire map. We’re not picking and choosing individual points. We’re offering the big picture.” And the big picture showed that the map’s ink contained none of the ingredients a medieval scribe might have used, but only pigments that were unavailable before the twentieth century. A Yale scientist declared the ink “consistent with modern manufacture.” What was worse, another scholar showed that the map, which had been thought to be based on a 1436 map by the Venetian cartographer Andrea Bianco, reproduced certain errors found in a 1782 copy of the Bianco map but not in the original map itself. Clearly, a modern hand had drawn the map. A cryptic inscription on the manuscript, written in the same titanium-based ink, indicated that there had been a deliberate attempt to deceive. It was impossible to maintain after all that the Vinland Map was an ancient product.

So after half a century of debate, the map has to be relegated to the world of clever hoaxes. Yale will keep it anyway, said curator Raymond Clemens, who called it a “historical object in and of itself” and “a great example of a forgery that had an international impact.” But he expressed his relief that the issue could at last be closed. “We don’t want this to continue to be a controversy. There are so many fun and fascinating things that we ought to be examining that can actually tell us something about exploration and travel in the medieval world.”

So be it. The map is a fake, and we can no longer believe that some valiant Vikings circumnavigated Greenland in the eleventh century, carefully noting every detail of the coastline that would then have been impossible to investigate. That there was a settlement across the water in Newfoundland, yes, we have no doubt of that, but it is not the Vinland Map that proves it for us but the subsequently discovered ruins of the village at L’Anse aux Meadows. And so we grope our way toward knowledge of the misty past, sweeping away, as we go, all the sly false markers that cunning forgers have put in our path. I’ll have more to say about that next time.