



Small Holes

LARGE ROCKS

“Mooring stone” 45 feet above the nearest shoreline in Runestone Park, formerly the Douglas County farm of Olof Ohman, 1998, and (at right) the famed Kensington Runestone, on display at the Runestone Museum in Alexandria, Minnesota

The “Mooring Stones” of Kensington

“8 Swedes and 22 Norwegians on an exploration journey from Vinland westward. We had our camp by 2 rocky islets one day’s journey north of this stone. We were out fishing one day. When we came home we found 10 men red with blood and dead. AVM save us from evil. We have 10 men by the sea to look after our ships, 14 days’ journey from this island. Year 1362.”¹



In the fall of 1898, when Olof Ohman first told his neighbors about the stone slab unearthed on his farm in west-central Minnesota, the people of Kensington and Alexandria had no idea of the size or duration of the controversy that he had begun. The 200-pound tablet of gray rock was inscribed with deep markings, soon recognized in that Scandinavian community as runic writing. Although runes were still

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¹ Runestone translation from Erik Wahlgren, *The Kensington Stone: A Mystery Solved* (Madison: University of Wisconsin Press, 1958), 3.



Olof Ohman and the runestone, 1921

commonly known in nineteenth-century Sweden, where Ohman himself had been raised, they are more usually associated with the era of Viking exploration. The writing, soon translated, appeared to tell of a dramatic episode in 1362 involving 30 Vikings, 20 of whom had traveled deep within the American continent.²

Although linguists questioned the authenticity of the carved stone almost immediately, many in this nation's Swedish and Norwegian communities were eager to accept it as solid evidence of a pre-Columbian Viking presence in the New World, an idea firmly believed by most nineteenth-century Scandinavian Americans but unsupported by archaeological evidence until the 1960s. Settlements in Greenland and eastern Canada are now known to have been occupied by Leif Erikson and others in about 1000 A.D.³ But in 1898 the Kensington Runestone, as it came to be called, was the only potential evidence for proving that credit for the first European encounters in the American hemisphere should go to the Vikings, not to Christopher Columbus and his crew.

The issue went beyond national pride. When the runestone turned up in 1898, this nation of immigrants was also a nation of ethnic rivalries, and the Columbus-was-first version of history gave Italian Americans a status that others envied and resented. The 1893 World's Columbian Exposition in Chicago, belatedly celebrating the four-hundredth anniversary of the voyages of Columbus, had been especially galling to the Swedish and Norwegian communities of the United States. The subject was discussed in countless newspaper articles read by Norwegians and Swedes on two continents. They responded by raising money to finance an ocean trip by a full-sized replica of the *Gokstad*, a Viking longship, to prove that a Viking voyage across the Atlantic was possible. The ship sailed from Norway and hovered in Lake Michigan just outside Chicago throughout the world's fair festivities.⁴

When the runestone appeared several years later, it provided the physical evidence needed to help make the case that the Norse were the first Europeans to visit the New World. For those who saw it as authentic, it substantiated the sagas of Viking exploration that many of Scandinavian descent had heard through the generations and believed to be true.⁵

² Arguments for and against the runestone's authenticity abound. See, for example, Theodore C. Blegen, *The Kensington Rune Stone: New Light on an Old Riddle* (St. Paul: Minnesota Historical Society, 1968); Hjalmar R. Holand, *Explorations in America Before Columbus* (New York: Twayne Publishers, 1956).

³ Helge Ingstad, "Norse Sites at L'Anse aux Meadows," in *The Quest for America*, ed. Geoffrey Ashe (New York: Praeger Publishers, 1971), 175–97.

⁴ Iver Kjær, *Runes and Immigrants in America: The Kensington Stone, the World's Columbian Exposition in Chicago and Nordic Identity*, Nordic Roundtable Papers, vol. 17 (Minneapolis: Center for Nordic Studies, University of Minnesota, 1994), 19–24.

⁵ See, for example, Magnus Magnusson and Hermann Palsson, trans. and ed., *The Vinland Sagas—The Norse Discovery of America. Graenlendinga Saga and Eirik's Saga* (New York: New York University Press, 1966).

A RUNESTONE TIMELINE

1998 marks the centennial of the discovery of the controversial Kensington Runestone. For 100 years linguists, runologists, archaeologists, historians, Scandinavian-studies experts, journalists, and others have argued over its authenticity, each side winning converts and failing to convince opponents. Much of this contentious debate has appeared in the pages of *Minnesota History*, beginning with the very first volume of the magazine in 1915. Below are some of the landmark dates in the stone's unfolding tale. For a glimpse of the continuing debate, visit www.dejanews.com.

- 980 Erik the Red of Norway establishes colony on Greenland
- ca. 1000 Leif Erikson leaves Greenland, founds Vinland
- ca. 1010 Viking village established at L'Anse aux Meadows, Newfoundland
- 1354 Paul Knutson of Norway is ordered to visit Greenland to strengthen Christianity; no evidence exists that he made the voyage.
- 1362 Date on the Kensington Runestone. Proponents argue runestone was made by explorers from Knutson's party.
- 1893 World's Columbian Exposition in Chicago, celebrating Columbus's voyages to the New World
- 1898 Runestone found on Olof Ohman's farm near Kensington, Minnesota
- 1899 First published news accounts of runestone appear in January and February
- 1899 Skeptical response causes Ohman to use the runestone as a stepping-stone to his granary
- 1907 Hjalmar Holand visits Olof Ohman, obtains runestone
- 1910 Museum committee of the Minnesota Historical Society releases a report rendering a favorable opinion of the runestone's authenticity, contingent on endorsement by a reputable authority on Scandinavian languages. Satisfactory endorsements were not obtained, and neither the MHS Council nor the society itself ever endorsed the committee's findings.
- 1932 Holand's first book, *The Kensington Rune Stone: A Study in Pre-Columbian American History*, published.
- 1948 Runestone exhibited at the Smithsonian Institution
- 1948 Runestone featured in the July issue of *National Geographic*
- 1951 Runestone Park opens
- 1965 Minnesota exhibits runestone at the World's Fair
- 1976 Restriction removed from tape-recorded confession by Walter Gran that his father, John P. Gran, helped his neighbor Ohman carve the runestone. Excerpt from transcript published in Winter issue of *Minnesota History*.

To determine whether the runestone was a genuine fourteenth-century document or a timely hoax, numerous writers and researchers have examined in great detail the linguistic aspects of the carvings. Although most reputable linguists with appropriate specialties

have concluded that the Kensington Runestone was not carved in 1362, their scholarly explanations have never been sufficient to dissuade all runestone defenders, including those who claim that the carving contains a secret message in code.⁶ Understanding the sophisticated

⁶ See, for example, Wahlgren, *Kensington Stone*, 107–20; Hjalmar R. Holand, *Norse Discoveries and Explorations in America, 982–1362* (1940; reprint, New York: Dover, 1969), 151–86.

linguistic analyses requires expertise and patience and leaves some readers with the sensation that the ongoing debate is esoteric and unresolved. Regardless, it is reasonable to assume that, even if the stone were a nineteenth-century forgery, the carver could have had the capacity to research and successfully mimic the writing of a previous era. It should not be a surprise to find the runes linguistically solid, no matter when they were made. If ever a final answer to this puzzle is to be widely accepted, it will have to involve another form of evidence.

Aside from the stone itself, has there been any other evidence to support the proposition of Viking exploration so deep into North America? Numerous axes, swords, spearheads, and other artifacts that have turned up in various parts of Minnesota and central Canada over the past decades have been considered as authentic tools or weapons of the Viking era. All have been carefully examined by experts, however, and none has survived scrutiny.⁷ The identity and purpose of each piece has been fully researched and established beyond doubt, with the exception of only one other type of artifact: “mooring stones.”

It was Hjalmar R. Holand, the leading advocate for the Kensington Runestone, who first suggested that the small holes chiseled into large rocks found along western Minnesota lakeshores were proof of a Viking visit to the region. Holand was a writer and lecturer in 1907 when he visited the Ohman farm and first saw the runestone. From then until his death in 1963, he was the determined defender of the carved block, publishing 5 books and more than 30 arti-

cles and essays. Always alert to anything that might strengthen the case for the proposed Viking visitation, he originated the mooring-stone idea and proposed a hypothetical route across the prairie for a Viking longship.⁸

The holes, Holand argued, were chiseled into boulders to allow a spike with an attached ring to be inserted, so that a boat could be tied easily to the rock. He knew that Norwegian and Swedish fishermen used this technique to moor boats on the steep rock walls of the deep fjords of Norway and suggested that the same method was employed on the prairie waterways of Minnesota. He specifically cited 10 such stones, distributed along “the shore of a lake or former lake” and located at distances that he felt accounted for a day’s travel.⁹

There are actually many more than 10 large boulders with small chiseled holes in western and west-central Minnesota, scattered along lakeshores and up the sides of the rolling hills. There is no question that the holes of varying depths were made by humans, most often using a one-inch iron chisel. The only questions are “When?” and “Why?”

In 1981 a four-person crew from the Minnesota Statewide Archaeological Survey of the Minnesota Historical Society arrived in Douglas County to research and record precontact American Indian archaeological sites.¹⁰ We began with the 14 sites that had been located before our visit; eight weeks later more than 60 pre-Columbian American Indian sites had been registered for the county. During our stay, the director of the county historical society approached us to ask for help in providing definitive proof regarding these so-called mooring stones. Were they related to a Viking visit or not? The question was sincere and was now being asked in a new context with special significance for at least one county resident. A local developer was planning to build a lakeside condominium at a site with a chiseled boulder, and he wanted to name his new project after the find—if it could be authenticated. He did not want to discover later that he had made a mistake, so he asked the local historical society for a final determination. The question was then passed on to us.



*Hjalmar Holand,
the runestone's staunchest
defender*

⁷ For a summary, see Birgitta L. Wallace, “Some Points of Controversy,” in *Quest for America*, 163–67.

⁸ On Holand’s career, see Rhoda Gilman, “The Tale Unfolds,” in *Vikings in Minnesota: A Controversial Legacy*, vol. 21 of *Roots* (Spring 1993): 15.

⁹ Holand, *Explorations*, 177–91.

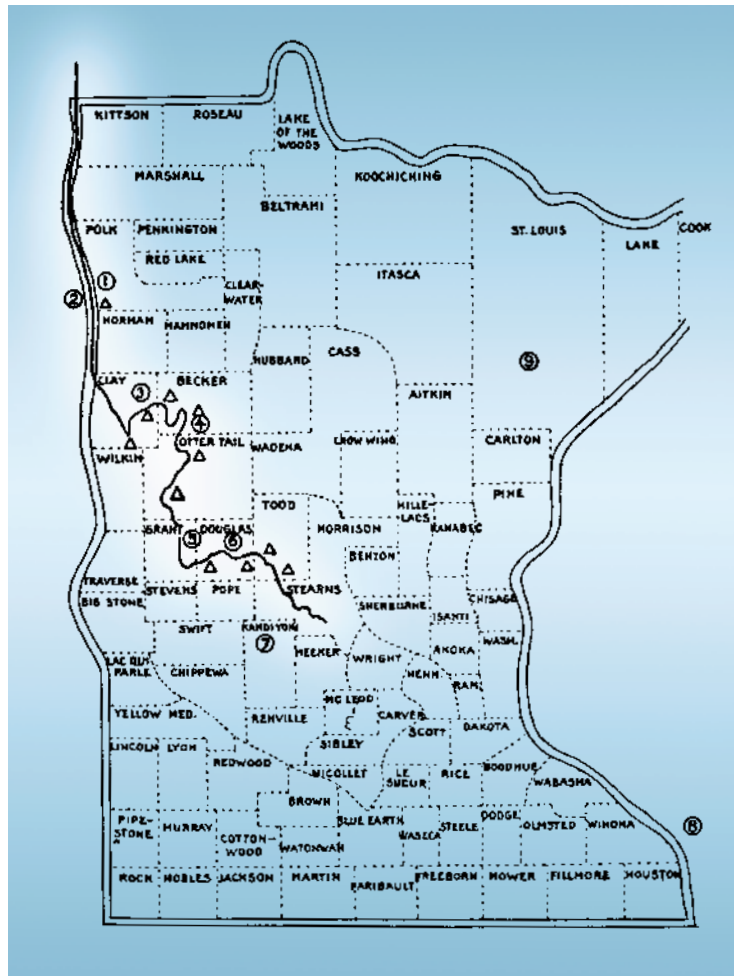
¹⁰ The archaeologists were Lee Radzak, John Hunn, Joan Schopp, and the author.

We felt that a responsible approach required examining all of the possibilities with an open mind and finding the most likely explanation for the occurrence of these rocks with holes that appear throughout the area where the runestone had been unearthed. The first step was to establish a hypothesis and find appropriate ways to test it; if it failed to fit the facts, we would move on to another hypothesis. We began with the original mooring-stone idea. If Viking sailors had visited the prairie-lake landscapes of western Minnesota and made these holes, then what else would we expect to discover? What corresponding data should be evident?

We started by making a list. If the holes were chiseled to provide a place to tie up a boat, then we should also find:

- Geological and soils evidence of much higher water levels in 1362 than are presently found in the county, in order to support a boat large enough to require mooring. (There is no navigable waterway through the area today.)
- A small number of such stones, since they would have been needed only where the sailors stopped for one or more nights.
- The chiseled stones occurring along a clearly defined water route.
- The stones all located at a consistent elevation of land, coinciding with the level of the bodies of water in the fourteenth century.
- All of the stones resting where no alternative means of beaching or tying a boat might suffice.

We began with the question of the water levels. Soils maps for Douglas County clearly illustrate sandy lakeshores that once existed where today there are drained fields.¹¹ The shorelines of surviving lakes, however, differ only slightly from their earlier outlines—not enough to suggest a dramatically different circumstance 650 years ago, and certainly not enough to establish an interconnected series of rivers and lakes that could provide a water pathway for a large Viking ship. Much higher water levels from that time would have left a very different record in the soils of the area.



Holand's map of the Vikings' route to Kensington, from his 1956 book, Explorations in America before Columbus. The triangles signify mooring stones; the circles, supposed medieval artifacts.

Further evidence precluding the existence of much higher water levels in the fourteenth century came from extensive archaeological research in the region. The 1981 archaeological survey in Douglas County recorded a dozen American Indian sites from the era that lasted through the mid-1300s and later, many of them located on the edge of lakes as they exist today. These findings corroborate the soils evidence. The shorelines of seven centuries ago, occupied by Indian people, correspond in some cases very closely with those of today, with the exception of the lakes that were drained earlier this century.

Given such water levels, there was no easy route for a Viking longship, not from the begin-

¹¹ Donald E. DeMartelaere, *Soil Survey of Douglas County, Minnesota* (Washington, D.C.: U.S. Department of Agriculture Soil Conservation Service and Minnesota Agricultural Experiment Station, 1975).

ning in Canada and certainly not in Minnesota, in spite of Holand's claims to the contrary.¹² A party traveling more than 1,000 miles—beginning with the difficult portages of the Nelson River at Hudson Bay and continuing upstream, up the Red River of the North and again upstream against the current of the Buffalo River, as Holand proposed—would experience so many portages that it would only make sense to use small boats capable of being transported over land. But if the boats could be portaged, then there would have been no reason for all the work of chiseling holes in boulders instead of dragging the boats onto shore, a point Holand does not explain.

The sheer quantity of stones with chiseled holes found in the area also challenges the theory of a Norse source for the phenomenon. Although Holand limited his reporting to 10 stones along the Minnesota portion of the route that he postulated the Vikings took from Hudson Bay, the fact is that there are many, many more. Holand himself acknowledged in 1956 that his proposition depended on there being only a few stones in strategic locations: "In the interior part of America, no mooring stones are known to have existed, except in Minnesota, where ten have been found. They are not scattered about over the State, but are found along a crooked waterway from Hawley in the northwestern part of Minnesota to Sauk Centre in the central part." His argument emphasized their placement: "*one day's journey between each.*" (Holand had apparently forgotten his earlier account, published in 1940, of the three mooring stones that he had reported in one place at Cormorant Lake.)¹³

In fact, Marion Dahm of Chokio, a modern advocate for Viking visitation to Minnesota, claims that he has identified more than 300 mooring stones in the region.¹⁴ By his count, there are more than 25 in the immediate vicinity of Ohman's original farm, many of which our archaeological team examined. There is no reason for Vikings to have made that many mooring stones. The large number of examples, if nothing else, would suggest that another explanation for their occurrence is needed.

The location of the stones does not support the hypothesis, either. They exhibit no apparent distribution pattern, certainly none that follows a specific waterway that could have been a route for a Viking longship. They do occur on lakeshores but also in fields and on hillsides, widely scattered across the landscape. They are found at various elevations: at the level of modern shorelines and more than 40 feet higher. Even if it were possible to believe in some

long-vanished waterway, there would be no way to explain why mooring stones would be both beneath that proposed water level and high above it, rather than at one consistent height on the landscape.

In addition, accepting the premise that the Vikings traveled by water to Minnesota from Hudson Bay and chiseled these holes also means accepting that these Norsemen, coming from heavily wooded shorelines in Canada where mooring was no problem, anticipated the need for carrying heavy iron chisels, an even heavier hammer, and the means for keeping their chisels sharp—not a pleasant prospect, given the many portages along Holand's proposed route.



The Vikings' hypothetical route from Hudson Bay to Kensington, a detail of Smith's Chart of the Northmen's Routes with Reference to the Location of the Kensington Rune Stone (1915)

¹² Holand, *Explorations*, 180.

¹³ Holand, *Explorations*, 177, 186; Holand, *Norse Discoveries*, 198.

¹⁴ *St. Paul Pioneer Press*, Sept. 7, 1992, p. 1A, 4A.

Furthermore, the difference between the deep Norwegian fjords and the waterways of Minnesota and Canada is striking. The shorelines in western and west-central Minnesota are usually shallow enough to permit drawing a boat onto land or are lined with large enough trees or boulders for tying up a vessel. In fact, most of the boulders cited as mooring stones would be very easy to tie a rope around without going to the extraordinary trouble of chiseling out holes.

A final bit of evidence that works against the idea of mooring stones is the complete absence of similar stones at the documented Viking sites in the hemisphere, in Greenland and Newfoundland. Why would such an unlikely practice occur only in the fjords in Norway and in the middle of the North American continent, with its completely different topography?

The combined weight of the evidence and common sense thus led us to the inevitable conclusion that the Vikings were not responsible for making these holes. We were forced to move on to a new hypothesis to explain why these small holes were chiseled into large rocks. We considered every possibility that anyone could suggest to us: Were they markers made by early surveyors? Holes dug out to sample stone by early geology students? Part of a mystic ritual of some long-lost cult? Whatever their actual purpose, we would again need to search for evidence that would provide a conclusive explanation.

We chose as our next hypothesis a possibility that seemed almost too simple: that the stones with the holes were remnants of a practice so commonplace that it was taken for granted and left unrecorded in history. We would look for evidence that the holes had been chiseled in the second half of the nineteenth century to accommodate black powder or dynamite, placed inside to blast the rocks in half. Farmers used the resulting large slabs of stone to build foundations of homes and barns, and the endless work of clearing the rocky fields of western Minnesota was easier when large boulders were made smaller.

Others had offered the same hypothesis.¹⁵ The main problem with proposing such a mundane explanation was that supportive evidence might be scarce. It seemed unlikely that diaries

from farm families would mention such a common chore. We hoped that we might get lucky in our visits to local families in search of diaries, though, or that we might even find records from local stores indicating sales of black powder to the farmers who owned the land where the chiseled rocks were found.

We were, as it turned out, extraordinarily lucky. The first neighbor near the runestone site that we visited turned out to be an eyewitness. Emil A. Mattson, born in Douglas County in 1897, grew up on a farm next to Olof Ohman. Ohman had helped Mattson's father build the family barn and granary; the two were good friends. When we visited the Mattson farm in August of 1981, we saw the profile of chisel marks in the foundation stones of the barn, so we asked the obvious question: "Where did they get the rocks for the foundation?"¹⁶

Mattson answered all of our questions with his response:

Gee, whiz, I had to crank the grindstone for 'em to sharpen them chisels. You know, you had a chisel this long [*showing about a foot and a half*]. And then it was about as big as your finger. And then it was sharp, you know, sharpened, and then you took it like this and then you held it on the stone and then you



Mooring stones in a fjord, from Olaus Magnus's Historia (1555), also reproduced in Holand's 1940 book, Norse Discoveries and Explorations in America, 982–1362

¹⁵ See, for example, Wahlgren, *Kensington Stone*, 79; Wallace, "Points of Controversy," 168.

¹⁶ Here and three paragraphs below, Emil Mattson, interview by Tom Trow and Lee Radzak, tape recording, Mattson farm, Douglas County, August 26, 1981, oral history collection, Minnesota Historical Society.



Emil Mattson, interviewed at his farm in 1981

gave it a crack and, you know, they were experts at turning it, see? And then they turn it, and then they gave it another crack, and that's the way, after a while, the chisel went down in the stone. And then they dug the scrap out and they kept on drilling until it was about this deep [*showing about eight inches*]. Then they put powder. . . . in there, black powder, and then if it was a big stone you'd have to make another hole over here and another hole over there. And then they set fire to it and blasted it. And it cracks nice.

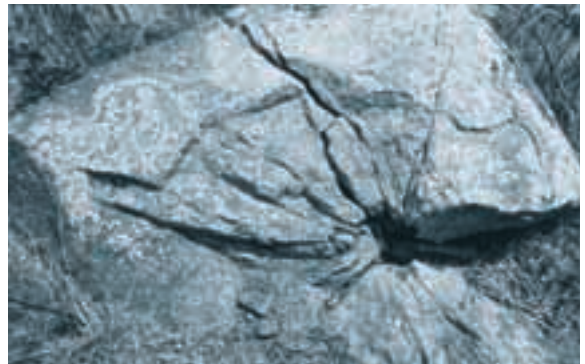
He went on to describe using dynamite when blasting rocks to clear the fields and talked about the problems of cleaning up the shattered bits of rock. He told us stories of his father and Ohman going out with the sharpened chisels in the morning and coming back at lunch with dull edges for Emil to grind. He talked about his other neighbors, in the early years of this century, using the same techniques to blast the rocks on their land. He showed us

the grindstones he had used and spoke again about how hard the work was.

Mattson then walked us down a path that started at the back of the barn and went down to the shore of a pond, where there was a huge boulder sitting in the mud. It was split up the middle, with a gap of about half a foot. There, in the middle of each piece, was the perfect profile of a chiseled hole. The blast had been successful, but the two pieces were still too heavy—and too deep in the mud—to move.

The mystery of the small holes in many large rocks left on the landscape can be easily explained: the ones we find today are simply those that were left unblasted, either forgotten or intentionally passed over. “They didn’t get around to blasting those,” as Mattson said. The so-called mooring stones are, in fact, recent historic artifacts, no older than the beginning of nineteenth-century farming in the region.

For a full century the Kensington Runestone has been the object of both staunch pride and firm disbelief and a topic of continuing scholarly commentary. Removing the mooring stones from the shrinking list of reasons to believe in the runestone still leaves the carved rock itself at the center of 100 years of controversy. The debates and discussions have focused public attention on the stone and have caused endless speculation, giving the Kensington area and its famous gray slab a special and lasting significance. After all, regardless of whether it is an important historic document from the fourteenth century or a clever hoax from the late nineteenth century, the Kensington Runestone stands as a testament to Scandinavian ingenuity.



“Mooring stone” with the clearly marked pattern of a poorly planned blasting attempt, found by archaeologists across from Runestone Hill, 1981

The pictures on p. 121, 122, 124, and 126, first published in volume 15 of the Collections of the Minnesota Historical Society, are in the MHS collections; p. 125 is from Hjalmar Holand, Explorations in America before Columbus (1956), p. 139. All other images are courtesy of the author.



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