

So it seems to me that the future may be bright for logics which permit a not necessarily excluded middle, and for some kind of evolution of human culture which permits some ambiguity, as in quantum mechanics, for example. It has been said that humans would rather be wrong than uncertain. That has to change. In the same way, somehow we need qubits instead of bits in Chaitin's Ω .

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The Kensington Runestone: Approaching a Research Question Holistically by Alice Beck Kehoe. Long Grove, IL: Waveland Press, 2005. viii + 102 pp. \$17.95 (paper). ISBN 1-57766-371-3.

The Kensington Rune Stone: Compelling New Evidence by Richard Nielsen and Scott F. Wolter. Minneapolis, MN: Lake Superior Agate Publishing, 2006. xvi + 574 pp. \$29.95 (paper), \$60.00 (cloth). ISBN 1-58175-562-7.

In the year 1362, in western Minnesota, members of an expedition from Norway and the island of Gotland returned from a trip and found ten of their

comrades dead, "all red with blood." They carved a commemorative stone, recording the event in the runes of their regional dialect; creating the basis for a controversy over the inscription's authenticity that has flared up at intervals since the stone's discovery in August, 1898. Now, two publications finally appear that are persuasive and detailed in presenting unequivocal evidence validating the stone, at the same time offering explanations for the historical circumstances that reasonably account for the presence of Scandinavians in Minnesota in the fourteenth century. Disputing scholars and the interested public must now adjust to the concept that North Europeans arrived in the interior of the North American continent long before Jacques Cartier sailed up the St. Lawrence River or Capt. John Smith landed on the Atlantic Coast.

The inscribed stone is a boulder approximately 36" × 15" × 6", weighing 201 pounds. Reliable accounts agree that Olof Ohman, a Swedish immigrant farmer, found the stone clutched in the roots of a poplar tree when he was winching out stumps from his property about twenty miles southwest of Alexandria, Minnesota, in late summer of 1898. Actually, his nine year old son spied the stone in the dirt clinging to the roots and noted the markings on it, thinking it might be an Indian artifact. The boulder became known as the "Kensington Stone" after being displayed for about two months in the village of Kensington.

Initially, the stone was simply an undecipherable enigma, but prolonged research by Richard Nielsen has now resulted in the following translation of the runic inscription on the face of the stone:

"Eight Gotlanders and twenty-two Norwegians, on a land acquisition journey to the west of Vineland. We had a camp two days journey north from this stone. We were fishing (i.e., preaching) one day. After we came home we found 10 men red with blood and death. Ave Maria. Save from Evil."

On the side of the stone is an additional inscription stating:

"There are 10 men by the sea to look after our ships fourteen days journey from this island. Year 1362." (Nielsen and Wolter, "Appendix C—The Language of the Kensington Rune Stone," pp. 539–544)

The individual runes are still subjects for further analysis, but the basic factual information about the expedition is found in this brief text. The Cistercians, a religious order represented on the island of Gotland in the late fourteenth century, used the verb "fish" to mean "preaching," similar to the biblical usage referring to Jesus as a "fisher of men."

The two new publications about the Kensington rune stone are closely related. Alice Beck Kehoe, archaeologist retired from the University of Wisconsin-Milwaukee, has written a brief and cogent account of the discovery of the stone and the subsequent variety of opinions on its authenticity. Her book, intended for use as a basis for classroom or seminar discussion, introduces the new research by Nielsen and Wolter. Nielsen is an experienced amateur linguist specializing in runes, but by profession a consulting engineer based in Houston, Texas. Wolter is a professional geologist and petrographer who has conducted recent

tests on the weathering of the stone, establishing it as ancient and genuine. Kehoe has written the foreword to their large volume, a profusely illustrated compendium covering every aspect of information about the Kensington stone and the people involved in its conflicting interpretations over the past century. Highly enlightening are accounts of the renewed interest in publicizing research results about the Kensington stone beginning in the year 2000, with attention to the additional data that the authors secured from their travels to Sweden as well as recently discovered Ohman family correspondence. An important recent event was the interdisciplinary conference devoted to the subject of the Kensington rune stone, held at Fort Snelling in 2003, organized by Guy Gibbon of the University of Minnesota.

As a basis for college- and university-level debate, the Kehoe volume is succinct and well organized, including chapters of evidence from the fields of archaeology, geology, linguistics, biology, Norse history, and finally a broad view of the significance of the Kensington rune stone in North American history. The section headed "Biology" contains a battery of provocative ideas that come up when ancient events of potential archaeological and anthropological significance are mentioned. Some points suggest contact between native populations and outsiders prior to the time of the rune stone. These include historical references to the "blond" Indians among the Mandan on the Upper Missouri River, the signs of a tuberculosis epidemic among American Indians about 1000 A.D., and the Hochunk (Winnebago) story about an ancestral hero "Red Horn" and his encounter with "red-haired giants."

Kehoe has also delved into the field of medieval history and Scandinavian international trading, beginning in the tenth century expeditions across present Russia to the Black Sea and fur trading eastward to Siberia. In this investigation she has uncovered the interesting report that Cinderella's slipper was not glass, but rather luxurious squirrel fur. As she explains, a translator from French to English made the error of interpreting a French term as verre, glass, when it was actually vair, squirrel fur (Kehoe, "Notes," p. 69). She also points out that the era of the rune stone is not the age of the Vikings in Scandinavia which ended in 1080 when the last kingdom accepted Christianity (p. 63). In the late fourteenth century, the ruling monarchs promoted missionary journeys to their colonies on the western side of the Atlantic Ocean.

The only drawback to the Kehoe volume is the map, inaccurately reproduced from the author's original sketch. The map has the wrong location for the Kensington rune stone, the wrong potential route from Hudson Bay to the site of the stone, and a questionable route for the Norse-Russian trade route. The most likely sea route for the 1362 expedition was to Hudson Bay at present York Factory then by waterways to Lake Winnipeg, and up the Red River to west-central Minnesota. This well-established communication route leading to the Minnesota and Mississippi rivers was regularly used after the founding of the Hudson Bay Company (HBC) in 1670. The HBC erected an outpost at Pembina on the Red River near the present Minnesota-Manitoba border. Fortunately,

Nielsen and Wolter include a satisfactory map as part of their "compelling new evidence."

Co-author Richard Nielsen is an amateur linguist who has been studying the runes on the Kensington stone since about 1985. He grew up in a Danish speaking household in California, received master's degrees in mathematics and engineering from the University of Michigan, and received a doctorate in material science from the University of Denmark in Copenhagen in 1965. Although he had heard of the Kensington stone in grade school, he did not begin intensive study of runes until the early 1980's while he was working in Scandinavia. Returning to the United States, he embarked on independent and innovative research on the Kensington stone. Scott Wolter is a licensed professional geologist and petrographer, who performed tests on the Kensington stone in the summer of 2000 providing evidence of its age. His tests indicated that weathering of the stone, conservatively estimated at more than two hundred years, established the fact that the stone cannot be a nineteenth century hoax, the opinion that had prevailed for the previous thirty years. Nielsen and Wolter were both members of a panel, organized by Kehoe, at the Midwest Plains Archaeological Conference held in St. Paul in November, 2000. Here they became aware of the emotional intensity, academic rivalry, and professional jealousy that have marred the reputation of the Kensington stone. Their publication includes a critical review of the successive stages in the controversy over the stone as well as biographies of eighty-eight people who have figured importantly in the arguments about its status as a "hoax" or a significant historical document.

The longstanding debate over the authenticity of the Kensington rune stone has mainly pitted the hard scientists against the "expert" linguists who initially disregarded Nielsen's work because he is outside "the academy." Yet Wolter and Nielsen have conducted more thorough technical research than any of their predecessors. To Wolter, the problem is simple. Either the stone is genuine or a hoax; and the geology indicates it is not a hoax. On the other hand, many people almost automatically reacted "that cannot possibly have happened" and concentrated entirely on finding ways to deny the authenticity of the stone's record and declare it was a "fraud."

To begin his review of the evidence, Wolter went directly to the original records and correspondence preserved at the Minnesota Historical Society. Newton H. Winchell, who became head of the Department of Archaeology at the Minnesota Historical Society in 1906, conducted a thorough study of the stone and the circumstances surrounding its discovery in 1909 and 1910, producing a seventy-six page report concluding the stone was genuine. Winchell had previously served as state geologist and paid particular attention to the evidences of weathering. In a field notebook, he recorded his interviews with Olof Ohman, members of his family, and all the neighbors who could provide first hand information. He was convinced that these were all honest and forthright people (Nielsen and Wolter, p. 518).

At a spring meeting in 1910, the Minnesota Historical Society accepted a committee report stating that although the stone's authenticity might not be definitely established, the preponderance of evidence pointed in that direction. But there was a second committee at work, organized by the University of Illinois Philological Society, headed by George Flom, professor of Scandinavian languages. Like most of his contemporary linguists, Flom noted "mistakes" in the runes and doubted that such an event could have taken place. The linguists ignored the geological evidence. (It is ironic that the supposed "mistakes" noted by early linguists turned out to be key points in identifying the particular dialect of the Kensington rune stone.) After reviewing Flom's report, the Minnesota Historical Society met again in July and rescinded their decision supporting the authenticity of the stone.

The linguistic and historical battle was already heating up on both sides of the Atlantic, while the geological evidence was largely ignored for the rest of the twentieth century. A new burst of discussion followed the entrance of historian Hjalmer Holand into the debate. Holand, a graduate of the University of Wisconsin who had studied Old Norse, first viewed the stone at the Ohman farm while collecting interviews with Scandinavian settlers. He managed to secure the rune stone from Ohman in 1907, and later took it to Europe for display. His impassioned speech at the Chicago Historical Society in 1910 defending the stone's authenticity challenged the linguistic cohort. A letter from Newton Winchell to Holand on August 10, 1911 included a prophetic observation:

"... there are geological (physical) aspects to the question (which absolutely require that the stone's story be correct). These are fundamental and cannot be set aside by verbal technicalities such as are, to this date, brought up to disprove it. They stand impregnable while a light combat rages about them among the scouts. When the line of battle reaches these fundamental truths they will assert their power. No one has, as yet, attacked those important bulwarks of the rune stone." (Nielsen and Wolter, pp. 433-434)

In the course of fifty years actively promoting the rune stone, Holand wrote six books and numerous articles. At the climax of a period of gradually increasing acceptance, the stone was exhibited in 1949 at The Smithsonian Institution as a genuine artifact.

The reputation of the Kensington rune stone took a precipitous downturn after widespread publicity stemming from a 1967 interview referring to a 1927 confession claiming that the stone was "false." In the 1967 interview recorded by Paul Carson of Edina, Minnesota, his aunt and uncle said that their father, John Gran, at a time when he thought he might be near death, told them that he and Ohman carved the inscription. (John Gran did not die in 1927, but lived until 1935.) Eight months after the interview, Carson reported the matter to Russell Fridley, head of the Minnesota Historical Society, who thought that the society ought to tape its own interview. Fridley finally conducted a second interview with Carson's seventy year old uncle, Frank Walter Gran, in Alexandria in 1970.

After reviewing both tapes, Wolter concluded that Walter Gran was an unreliable informant. Gran did say, however, that when he inquired about his father's story, Ohman said it was "humbug." Listening to the tapes, Wolter and Nielsen noted statements of Walter Gran that were in direct conflict with information supplied by other members of the community. Their subsequent inquiries revealed that John Gran was jealous of the attention that Ohman received because of the stone found on his property (Nielsen and Wolter, pp. 179 et. ff).

A more serious blow to the reputation of the Kensington stone was the 1968 publication of *The Kensington Rune Stone: New Light on an Old Riddle* (St. Paul: Minnesota Historical Society) by Theodore C. Blegen. The historian's solid reputation for scholarly research gained wide acceptance of his view that the stone was probably a nineteenth century hoax perpetrated by Ohman and two of his contemporaries. He relied heavily on the opinions of the linguists and runologists that are now outweighed by new evidence discovered in Gotland. He also was influenced by the hoax "confession" in the first of the Gran tapes. Nielsen and Wolter criticize Blegen's conclusions in the thirty page chapter devoted to "Scandals in Scholarship" where they candidly take to task a series of protagonists who have made serious, and at times almost malicious, errors in their publications. The major criticism of Blegen is his total omission of the geological evidence and opinions of Newton Winchell supporting the age of the stone and its authenticity, though he clearly made extensive use of Winchell's notes.

The Kensington stone came to the attention of forensic geologist Wolter in 2000, when the Rune Stone Museum, on Nielsen's recommendation, sought his expertise. Though his professional training took place in Minnesota, Wolter had never before heard of this controversial artifact. By that time, rare mention of the rune stone in the academic world merely caused raised eyebrows or a deprecating laugh, yet persistent inquiries continued. Given the task of testing the age of the inscription, Wolter had to collect new data on stone weathering, a field lacking a data base. He finally went to Maine to secure samples from old tombstones of comparable geological type that had experienced a climate similar to Minnesota. In addition to testing in his own laboratory, he arranged for additional work at the University of Iowa. By these procedures, he was able to state definitively that the Kensington rune stone was more than two hundred years old—old enough to rule out the possibility that it was a nineteenth century creation. Wolter used modern techniques to validate the 1909 report of Minnesota's first great geologist and archaeologist, Newton Winchell, who had confidence that the stone would eventually tell its story.

Richard Nielsen also forged ahead with intensive research on the runes, finding examples in his study of medieval diplomas. He has pointed out that the Kensington stone runes are in a special localized "e" dialect, while Olof Ohman and his neighbors, who had been charged with creating a "hoax," were all speakers of "a" dialects. Close inspection of the inscription further revealed

a second language form of punched dots, one series displaying the date 1362 according to the Easter Day dating code known to medieval monastic orders. More than a dozen inscriptions have been found in Gotland using the Easter Day table. The Kensington stone is not yet completely deciphered. Though a few words are still being studied, progress in research on medieval runes has identified as medieval several runes that earlier linguists thought were indications of "fraud." Particular significance is attached to the discovery of the dotted "R" rune, since it indicates that the stone could not have been carved in the nineteenth century and cannot be a "hoax." The dotted "R" rune was not identified in Gotland until 1930 and was found on the Kensington rune stone by Nielsen and Wolter in December, 2004.

In reconstructing the historical environment of the Kensington stone, the authors point out that in the late fourteenth century, the island of Gotland was the home of two allied religious and military orders, the Cistercians and the Teutonic Knights. Furthermore, Gotlanders were known as skilled stonemasons, who in the early 1300's were brought to mainland Sweden to build the cathedral at Uppsala under French supervision. With intensive photographic examination of the stone, the authors have found new clues to additional messages and symbols. One special sequence seems to spell the medieval French word "gral," or "grail"; and some of the punches appear to signify a prayer for the ten dead men.

Nielsen and Walter have not produced a definitive volume, but a significant milestone that reviews all the previous research while pointing out their own joint major advances in the fields of geology and linguistics. The book also has a strong human interest element in the section in which Wolter describes the travels and personal adventures that accompanied the scientific investigation, including meeting members of the Ohman family as well as foreign scholars in Sweden. He is particularly sensitive to the decades of anguish suffered by members of the Ohman family, who for four generations have faced the embarrassing and undeserved charge of "hoax." Among the "scandals of scholarship," Wolter criticizes the unsubstantiated assertions of archaeologist Birgitta Wallace, who as recently as April of 2003 published an attack on the honesty of Olof Ohman, calling the inscription a "joke." She also inaccurately described Olof Ohman as a "stonemason" when the evidence is unanimous that he was a carpenter with no stone-working skills.

The work of Nielsen and Wolter points out the many directions that continued research on the Kensington rune stone should take: medieval history, religion, linguistics, stone weathering, and even archaeological study of isolated artifacts found in the Great Lakes region. Since their book's publication, supplementary information about the proximity of sea travel has come to the attention of those following the rune stone story. Because the Hudson Bay area—and indeed the country south across the Great Lakes—was compressed by glacial ice, the land was still slowly rebounding during the fourteenth century and the waterways were much deeper, so that the Norse could have easily sailed quite close to

Minnesota. Reid A. Bryson, emeritus professor of Meteorology, Geography, and Environmental Studies at the University of Wisconsin, now at the Center for Climate Research in Madison, states:

“... rebound should have put the land in the Hudson's Bay area about 100 feet lower 600 years ago, eliminating the rapids and falls between the bay and lake Winnipeg, which should have extended somewhat further south, maybe to Winnipeg the city...”²

For many skeptics, this geographical information makes the rune stone inscription plausible, and opens up another intriguing field for further scientific exploration.

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Notes

¹ (2003). Vikings in North America—New and old. *Viking Heritage Magazine*, 4, 3–9.

² Bryson, R. A. (2005). Personal communication.

FURTHER BOOKS OF NOTE

The Trojans and their Neighbours: An Introduction by Trevor Bryce. Taylor and Francis, 2005. 240 pp. \$33.95 (paper), ISBN 0-415-349-559; \$105.00 (hardcover), ISBN 0-415-349-591.

This is quite an informative book. Most discussions of the Trojan War talk only about Troy and Greece. This book includes information from documents, many recently translated, found in the various kingdoms and empires surrounding and sometimes including Troy during its long, long history. It includes comments on or by Greek philosophers and historians familiar to most people educated in Europe and the United States as well as information from lesser known individuals. It provides a touch of reality both for scholars and general readers who believe every word of Homer about Troy as well as for those who doubt the existence of either Troy or Homer. It also has an excellent list of sources that could be consulted for further information about almost everything discussed.

One of the most interesting aspects of the book is the light it sheds on what went on in and around Troy before and after the period of the story of the Trojan War. The second useful and interesting contribution of the book is the excellent discussion of the various types of data that are used to make inferences about the historical details and how these data are interpreted. It is virtually a manual for the most cautious scientific use of available information. This alone would make it valuable for SSE members who are interested in speculations about the time and issues involved. There is a lot more recent