AN ENGLISH SCIENTIST IN AMERICA 130 YEARS BEFORE COLUMBUS

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For thousands of years navigation was almost entirely confined to coast-wise traffic. The sailors of these early years had no compass to tell them in what direction they were sailing nor any astrolabe or sextant to determine their position. About the year 1300 the compass came into use, and some time later also the astrolabe. Then the vast oceans lost most of their terrors and the great age of discovery followed.

The Norsemen did not wait for the discovery of mechanical aids to cross the Atlantic. There was a colony of several thousand Norsemen in Greenland which constituted an entire bishopric, and from the tenth century onward there were many crossings between Norway and Greenland. But aside from this commerce, no sailing from any other country to the western world is reported until in the middle of the fourteenth century. Then we come to an English friar who is said to have spent at least two years in a subarctic part of America.

The name of this friar is doubtful, but Richard Hakluyt who lived 400 years nearer to the friar's time than we do called him Nicholas of Lynn. He was an astronomer who became famous for making an astrolabe which enabled seamen to make fairly accurate observations of the latitude. He made one for John of Gaunt, Duke of Lancaster, who at that time was the principal English patron of the fine arts. Because of this very useful instrument, friar Nicholas was also called The Man with the Astrolabe.

About 1364 he wrote a small book entitled De Inventione Fortunata (The Fortunate Discovery). In this he tells of an alleged voyage to an inland ocean which was called Mare Sugenum (the indrawing sea), which, if the narrative is true, can only have been Hudson Bay. He presented this book to the King, Edward III. As this was long before the days of printing, the book is now lost, but there are some annotations about it on the margin of old maps made by prominent cartographers and also other references. Richard Hakluyt, the great preserver of early voyages, in 1589 wrote the following report on Nicholas' discoveries as condensed in The Dictionary of National Biography.¹

¹ Vol. 40, p. 418.
"Hakluyt states that Nicholas of Lynne made a voyage to the lands near the North Pole in or about 1360. His authorities, Gerardus Mercator and John Dee, who make no reference to Nicholas by name, derive their information from James Cnoyen of Bois-le-Duc, a Dutch explorer of uncertain date. Cnoyen's report, written in 'Belgica Lingua,' is lost. Mercator made extracts from it for his own use, and sent them in 1577 to John Dee. These extracts are preserved in the British Museum. From them it appears that Cnoyen's knowledge was obtained from the narrative of 'a priest who had an astrolabe.' This report was presented to the King of Norway in 1364. According to this priest's account, an Oxford Franciscan, who was a good astronomer, made a voyage in 1360 through all the northern regions, and described all the wonders of these islands in a book which he gave to the King of England, and inscribed in Latin Inventio Fortunata."

Because of the limited knowledge about Nicholas, historical writers have been cautious in evaluating his achievements. An exception to this is Professor E. G. R. Taylor of the University of London. She calls him "The Outstanding Figure of the Fourteenth Century," in geographical research. Another supporter is B. F. De Costa, the late well known writer on geography. Still another is Jon Duason, a voluminous writer on medieval Icelandic explorations. Ferdinand Columbus and Bartolome de Las Casas are among the early writers who briefly but approvingly mentions Nicholas' book.

Not only was this book, Inventione Fortunata, seen by many, but we also have the testimony of Jacob Cnoyen, a Dutch traveler, who in or about 1364 visited Bergen, Norway, where he talked with Ivar Bardson, the Officialis of the Greenland bishopric. The latter returned from Greenland in 1364 or the preceding fall in company with Nicholas of Lynn (or whatever was his name) and seven other survivors. Cnoyen writes:

"The priest who had the astrolabe" related to the king of Norway that in A.D. 1360 there had come to these Northern Islands an English Minorite from Oxford who was a good astronomer etc. Leaving the rest of the party who had come to the Islands, he journeyed further through the whole of the North etc. and put into writing all the wonders of those Islands, and gave the King of England this book, which he called in Latin Inventio Fortunatae, which book began at . . . latitude 54°, continuing to the Pole."

This 54th parallel where the narrative starts enters Labrador at Hamilton Inlet. From here he passes on to a sea which is called the

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8 Landkönnum og Landnám, Reykjavik, 1941, pp. 163–74.
9 Quoted by De Costa, see note 3 above.
10 Mercator says that he had had a copy of Cnoyen's original report, but later sent it back to its owner. As emended by John Dee, it is interlarded with remarks about King Arthur's imaginary settlement of Greenland in the year 539. Dee's copy is preserved in the British Museum. It is registered as Cotton M.S. Vitellius C. VII. In 1855 I obtained a photostatic copy of it. It has been translated by Professor Taylor and was published in Imago Mundi, 1956, XIII, pp. 55–68. The passage quoted above is on pp. 58, 59.
11 It will be shown below that this refers to Ivar Bardson,
indrawing sea where he found many big islands, swift currents and whirlpools. If he followed the coast northwestward he would come to Hudsoy Bay. It now remains to see if Nicholas’ description of the physiographic features in his ‘sucking sea’ agree with existing details in Hudson Bay.

With this in view I set out on a course of reading everything that had been written about Hudson Bay. But the material proved disappointing. The big encyclopedias, both foreign and domestic, had practically no information about Hudson Bay. While many scientific expeditions have been sent up there, they were practically all interested only in the geology or ornithology of the bay, and Nicholas does not mention these things. A personal visit was considered but rejected because of the great cost. The situation remained unsolved.

Then came good news. In 1957 the Canadian Hydrographic Service published its first Hudson Bay Coast Pilot, and after some delay I obtained a copy. In it I found a full description of all its islands, currents, whirlpools, magnetic disturbances, etc., and these are the things that Nicholas dwells on. Let us now see how far Nicholas’ descriptions agree with the Coast Pilot.

1. The Zugende Zee (the sucking sea), so called because of its swift currents and islands, which, Jacob Cnoyen was told, was the principal field of operations of the priest with the astrolabe, lay beyond, that is, west, of Greenland.8

An inspection of the map in Hudson Bay Coast Pilot or any good atlas will show that the only sea which can be called a sucking sea because of its islands and currents is Hudson Bay.

2. Captain George Beste, the historian of the first Frobisher expedition in 1576, wrote the following description of Nicholas’ indrawing sea: “As Mercator mentioneth out of a probable author, there was a frier of Oxford who himselfe went verye farre north above 200 years ago. . . . He reporteth that the southwest parte of that lande is a fruitful and a holesome soyle. The northeast parte is inhabited with a people called pygmei, whiche are not at the uttermost above four foote high. . . .”9

To understand this description it must be remembered that Nicholas had no other opportunity of observing the land around the sea than what could be seen from the deck of his ship or at a camp on shore. He did not travel by land and knew nothing about the interior of America. Nor did anyone else. When he says that the land to the southwest had a fruitful soil, he means the land on the southwest side of the sea on which he was sailing. Similarly, the pygmies that he saw were on the land northeast of him.

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8 John Dee’s version of Cnoyen narrative in *Imago Mundi*, 1956, p. 57.
This is true of Hudson Bay. The land on the southwest side of the bay is covered by a vast forest of spruce and tamarack on a front of more than 200 miles; and on the northeast is Baffinland, inhabited only by Eskimo. There is no other sea in the western hemisphere where similar conditions obtain.

3. Mercator quotes Cnoyen as saying that “there is never in these parts so much wind as might be sufficient to drive a cornmill.”

This is an exaggeration, but the quietness of the atmosphere in Hudson Bay has been noted by many. *The New International Encyclopedia* says: “Hudson Bay is singularly free from storm or fog.” This is also proven by the meteorological tables in the *Coast Pilot* page 328.

4. Cnoyen was also informed that “the Minorite (that is, Nicholas of Lynn) said that large parts of the “indrawing sea” did not freeze over in winter.” Johan Ruysch on the margin of his world map of 1508 also says this sea did not freeze in winter.

This is also true of Hudson Bay, which is the only subarctic sea in or near America which is open for the greater part in winter. The *Hudson Bay Coast Pilot* (p. 18) says that the ice in winter “extends off the east coast shore for 60 or 70 miles to include the islands (a long string off the east shore) and the remainder of the bay from one to 5 miles.”

5. In Cnoyen’s report of what he in 1364 was told about Nicholas’ exploration of the sucking sea there is a statement that this sea received many small (?) rivers, some one, some two, and some three kennings wide.

Hudson Bay is the only sea in subarctic America receiving any considerable river drainage; but it is a mighty reservoir as it receives the rivers of fully one-fifth of the entire North American area.

6. Most of the quotations from or about Nicholas dwell on the many strong currents in the *Mare Sugenum*. Captain George Beste who in his book, *True Discourse*, published in 1578, shows himself well informed for that period, quotes Mercator’s description of the sea visited by the author of *Inventio Fortunata*. He says “it is divided into four partes or Ilandes by foure greate guttes, indrafts, or channels, running violently, and delivering themselves into a monstrous receptacle and swallowing sincke, with such a violent force and currant, that a Shippe beyng entred never so little within one of these foure indrafts, cannot be holden backe by the force of

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10 See annotation on the margin of Mercator’s map of 1569; see also Taylor, *Imago Mundi* XIII, p. 65.
11 Cnoyen’s narrative (fol. 268 v.), printed by E. G. R. Taylor in *Imago Mundi*, p. 60, p. 60.
12 Ibid., p. 64.
13 Ibid., p. 57. A kenning was 17–20 miles” (note 6 on same page).
any great winde, but runneth in headlong by that deep swallowing, into the bowels of the earth.”

In the northeast corner of Hudson Bay, where its waters meet the waters of Foxe Channel and Hudson Strait, lie four large islands which are constantly pounded by the swift currents of these opposing waters. These are the two Mill Islands and Salisbury and Nottingham. The two Mill Islands were so named by William Baffin in 1615 because of the great grinding of the ice in that vicinity. Mr. Putnam, director of the Putnam expedition in 1937, in an article in the Geographical Review, in which he describes the northeastern part of Hudson Bay, wrote: “The fabulously swift tidal currents with their propensity for grinding the ice and swirling it fearsomely hither and yon, are as startling today as then.”

7. Nicholas is quoted by Mercator, Heylin and Beste as saying that this sea drains into a gulf with many whirlpools, so difficult to navigate that sailing vessels caught in them cannot get away.

This is a good description of Hudson Strait through which the waters of Hudson Bay reach the Atlantic. The strait has a tide of 35 feet—even 52 feet has been recorded in the Hudson Bay Coast Pilot, and when this meets the current from Hudson Bay, the problem of navigating a sailing vessel becomes very serious. If in addition to this a wind is blowing, the situation becomes desperate.

8. This gulf, according to Nicholas, is a hundred miles wide.

While the width of Hudson Strait varies, the usual statement is that it is 100 miles wide.

9. Ruysch, on the margin of his map of 1508, says that in the Mare Sugenum “the compasses become useless, and ships that carry iron cannot get away.”

The Hudson Bay Coast Pilot (page 263) says that there is so much magnetic disturbance in the northern part of Hudson Bay that “The magnetic compass cannot be relied upon in the approach to Churchill Harbor (on the west coast) in consequence of this magnetic disturbance.”

10. Ruysch and Heylin both quote Nicholas as saying that below the arctic pole is “A high mountain of magnetic rock, 33 leagues in circumference, the land adjoining being torn by the sea into four great islands.”

The map accompanying the Hudson Bay Coast Pilot shows that just west of the four big islands (see number 6 above) stands Mount Minto, a towering rock more than a thousand feet high and in plain view of them. It is now known to be an appendage to Southampton Island, but, according to the Coast Pilot (p. 266), was for-
Figure 1. A. Portion of Frisius globe of 1537, with Hudson Bay as Mare Glaciale.

B. Modern map of Hudson Bay.
merly thought to be a separate island. It lies close to the area where, according to the Coast Pilot, “the compass cannot be relied upon.”

With these facts before us, there can be no doubt of Nicholas’ voyage to Hudson Bay. Only after personal inspection was it possible to describe the physical circumstances of Hudson Bay as closely as he has done.\textsuperscript{17}

There is another probable proof of Nicholas’ sojourn in Hudson Bay. About fifty years ago a globe of the world was found in Zerbst, Anhalt, Germany. It was made in 1537 by Gemma Frisius, one of the best cartographers in the Sixteenth Century and was reproduced in part in 1911 in A. A. Björnbo’s Cartographia Greenlandica.\textsuperscript{18} This shows a very good map of Hudson Bay as shown on the accompanying photostat (Figure 1). In the north end we see the opening to Foxe Channel and in the south is James Bay, somewhat too large. On the northeast we see the opening to Hudson Strait. The west coast is almost perfect, with Chesterfield Inlet, Churchill River and the Nelson, all shown in their proper places. There are two rivers having a joint outlet—the Nelson and the Hayes, and this is also shown. It might be objected that this Mare Glaciale is pictured as lying in Asia, but how would Frisius know where Asia began? He would only know that this sea lay far northwest of Greenland.

But the critic will object: How would it be possible for Nicholas to make a voyage to America in the 1360’s? An exploration of several years’ duration would cost a lot of money, and Nicholas, a mendicant monk, certainly had none. Nor was the government interested. Aside from John Cabot’s voyage in 1497, it was about 250 years before the English became interested in America.

This is quite true, but there was an expedition in American waters at that time, and it spent about two years, 1362 and 1363, in Hudson Bay. This was a royal expedition, initiated and financed by Magnus Erikson, King of Norway and Sweden. It was fitted out with great care, and Sir Paul Knutson, one of the leading noblemen of Norway, was appointed Commodore. \textit{We have four different reports} or channels of information about this expedition. It was not primarily an exploring enterprise, but a crusading endeavor to bring a large group of Norse Greenlanders back into the Church.

\textbf{THE FIRST REPORT} is the historical record of the cause and purpose of the expedition. It gives the King’s commission to Sir

\textsuperscript{17} This was emphasized in 1577 by Captain George Besta in the following words: “This so particular a description of the land and countries lying about the Pole, argueth that this Oxford frier tooke great pains therein, and induceth great probabilities and likelihood of the truth thereof, because he observed so diligently by measure, the brefth of the indrafts, what time, and how long they continued frozen, and with how manye mouths or receipts every one of them received the ocean.” \textit{The Three Voyages of Martin Frobisher}, publications of the Hakluyt Society, Ed. of 1867, Vol. 38, pp. 34 ff.

\textsuperscript{18} See \textit{Meddelelser om Grønland}, Vol. 48, Plate 4.
Paul to find a certain group of Greenland people who were reported to have given up the true faith and emigrated to parts unknown. These people lived in what was known as the Western Settlement. This was about 250 miles northwest of the main settlement in Greenland.

In 1342 these people disappeared. We have the report of a prominent man who visited this settlement in that year and found that the entire population had vanished. He was Ivar Bardson, the steward of all the large properties of the Church in Greenland. There is also a late copy of an Icelandic Annal, stating that the people in the Western Settlement had given up the Christian faith and in 1342 had emigrated to America.19

As Greenland was a crown colony and private trading was strictly forbidden, these people were entirely dependent upon the King for all their imports. He had neglected both their temporal and spiritual welfare. Eventually he learned of their miserable condition many years later and then, full of self-reproach, he sent a very strongly worded letter to Sir Paul providing for a relief expedition. The following is a translation of a sixteenth century copy of the letter.

"Magnus, by the grace of God, King of Norway, Sweden and Skaane, sends to all men who see or hear this letter good health and happiness.

"We desire to make known that you [Paul Knutson] are to select the men who shall go in the Knorr . . . from among my bodyguard and also from among the retainers of other men whom you may wish to take on the voyage, and that Paul Knutson the commandant shall have full authority to select such men whom he thinks are best qualified to accompany him whether as officers or men. We ask that you accept this our command with a right good will for the cause, inasmuch as we do it for the honor of God and for the sake of our soul and for the sake of our predecessors, who in Greenland established Christianity and have maintained it to this time and we will not let it perish in our days. Know this for truth, that whoever defies this our command shall meet with our serious displeasure and thereupon receive full punishment."

"Executed in Bergen, Monday after Simon and Judah's day in the six and XXX year of our rule (1354) by Orm Ostenson, our regent. Sealed."20

The reader will note that this was not a commercial but a military rescue party, requiring a select body of trained men.

As Sir Paul’s commission is dated October 27, 1354, the expedition could not have started until the summer of 1355. However, the Icelandic Annals for that year report that 1355 was so excessively stormy that no ship arrived in Iceland or left in that year. The earliest possible date for the departure of the expedition would therefore be 1356. It will be shown below that Ivar Bardson, the

20 See Grønlands Historiske Mindesmerker III, 120–122; Gustav Storm, Studier over Vinlandsreiserne, 1888, p. 73; H. R. Holand, Westward From Vinland, 1940, pp. 90, 91.
bishopric's *officialis*, returned to Bergen in 1364, bringing with him eight survivors of the expedition. There is no explicit mention of the return in Norwegian records. For this reason some critics have doubted that it ever set out.

But there is plenty of evidence that it took place and in part returned. There is first of all the compelling need of it. Greenland was a crown colony and therefore under the immediate supervision of the King himself. He had failed in this, and being a very pious man, he eventually realized his guilt most keenly. For this reason he writes in his letter that he was sending this expedition "for the sake of our soul." As he felt that his salvation depended on his effort to rescue these lost Greenlanders, it is not likely that he would neglect to do so, providing he could find the money that was needed in fitting out the expedition.

This was fortunately in his possession. In 1351 he had sent a delegation to the Pope, requesting a big loan to be used in his campaign against the heretical Russians. The Pope approved his request and ordered that a holy crusade be preached in Germany and Poland as well as in the Scandinavian countries. The King was also permitted to retain half of the tithes collected in Norway and Sweden during the four years from 1352 to 1356. As the King was obliged to give up his third campaign against Russia because his men refused to expose themselves to a third attack of the Black Death (the Asiatic cholera), he had sufficient funds for his expedition to Greenland and the West.

Concerning the purpose and time of return of this expedition, Professor Gustav Storm, in his time an expert on old Norwegian history, says:

"The object of this expedition is said to be to maintain Christianity in Greenland, i.e. a battle with the Eskimo, including an effort to strengthen the colony generally, perhaps also to explore the new lands. One thing is sure that the conditions of the colony and its fate were thoroughly considered in Bergen whence the expedition departed, and to which it returned after a number of years, most likely in 1363 or 1364."  

We have further information about this expedition is a statement by Archbishop Claus Magnus. He writes:

"In the year 1505 I personally saw two skinboats above the western entrance within the cathedral dedicated to the sainted Halward. . . . It is stated that King Haakon captured them when he with his battle fleet passed the coast of Greenland. . . ."  

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24 While the expedition was planned by King Magnus in 1354, it was carried out by King Haakon, who succeeded his father in August, 1355.
Manifestly, the capture by a battle fleet of two small one-man skin-boats was not such an outstanding victory that the prize was given a place of honor in a cathedral! But if they were the only mementos of the men who had sacrificed their lives in their effort to save their humble countrymen from eternal damnation, we can see that their presence in the cathedral was a well deserved honor. And there they hung for generation after generation to testify to the self-sacrifice of these men.

At this time (the middle of the Fourteenth Century) there was much interest in the western lands. In 1347 a company of Greenlanders went to Markland to get a cargo of timber. Markland was the Norse name for Nova Scotia and possibly New-Foundland. On their return voyage they were storm-driven to Iceland, and thus their voyage became recorded.25 A few years before that event Sir Hauk Erlendsson, who was Sir Paul’s immediate predecessor as Judge of Gulathing, had written a book about the Norse discoveries in America which is still a basic document.26 As both of these men lived in Bergen, and in view of Sir Paul’s appointment as commodore of this new expedition, he no doubt studied Sir Hauk’s book with care. In this he would learn much about Vinland, a very pleasing place, where grapes grew in abundance. Most commentators agree that Vinland lay in the southern part of New England. Here, probably, Sir Paul built a fortified base where crops could be grown while subdivisions searched the shores for signs of the Greenland apostates, which might take several years.

It is not likely that the search went southward very far, because a people accustomed to the climate of Greenland would not care for the hot weather of the south. But northward the prospect was more promising. And when Sir Paul’s men got far north to Hamilton Inlet and beyond, where the climate was like that of Greenland, they would have good hopes of succeeding in their search. This coastwise passage would lead them into Hudson Bay, unless the exiles were found before going so far.

We thus see that the royal expedition had good reason for being in Hudson Bay early in the 1360’s. And they were there at the same time as Nicholas, because he and the survivors of the royal expedition returned to Greenland in 1363, and in 1364 they arrived in Norway, as will be shown below. It is beyond belief that there were two independent expeditions in that remote part of America and at exactly the same time. The only reasonable conclusion is that Nicholas was a member of the royal expedition.

But is it likely that an Englishman would be a member of a Swedish-Norwegian expedition?

26 The title is Hauksbok; A. M. Reeves, The Finding of Vinland the Good, London 1895, contains photographic reproductions of the text.
The knowledge of geography in the Middle Ages was so scant that all countries interested in exploration were glad to avail themselves of foreign experts. Spain’s greatest progress was made by help of three foreign navigators—Columbus, Vespucci and Magellan. The first French voyage to America was guided by Verrazano, a Florentine, and the first English vessel sent into the West was commanded by John Cabot, a Venetian. Lynn in Norfolk, England, was the principal port of Norwegian trade in England and many Norwegians lived there.\textsuperscript{27} There was therefore brisk intercourse between Lynn and Bergen, from which port the royal expedition set out. Moreover, Gisbrikt, the Bishop of Bergen, was an Englishman, and he was no doubt deeply interested in the success of this great religious enterprise to an unknown country. He would therefore urge upon Sir Paul, who also lived in Bergen, the wisdom of securing the service of his famous countrymen, ‘the man with the astrolabe.’

Below we shall see that the royal expedition not only operated in the same remote part of America, but that it was there at exactly the same time and returned to Bergen the same year.

**THE SECOND REPORT.** This is Nicholas’ report in *Inventione Fortunata* as preserved in the fragments cited above. The original probably told of how he reached America.

**THE THIRD REPORT** is Jacob Cnoyen’s interview with the priest, Ivar Bardson, in 1364 as preserved in the British Museum papers. For fifteen years the latter had waited in Greenland for a ship so he could return to Norway and report that the Greenland bishop was dead. Finally in 1363 Nicholas returned to Greenland with seven survivors (see below), and the next year he brought them with Ivar to Norway.\textsuperscript{28}

When Jacob Cnoyen came to Bergen, Nicholas had probably left for England because Cnoyen does not say he had spoken with the Englishman. Cnoyen made a report of what he had learned about Nicholas’ great voyage, but as much of this dealt with things and places he had never heard of, it is not strange if his narrative is sometimes incomprehensible. For instance, he reports that Nicholas had seen a black magnetic mountain right at the North Pole.

This plainly shows that Nicholas had been misunderstood. Johan Ruysch (1508), quoting from Nicholas’ book, placed the Sucking Sea with its magnetic mountain about 1500 miles from the Pole (see his World Map of 1508 in the Rome Ptolemy).


\textsuperscript{28} We know that Ivar Bardson was in Bergen in 1364 because he was then appointed Canon of the Church of the Apostles in Bergen, the most important of the fourteen royal chapels. See *Diplomatarium Norwegicum*, IV, p. 341.
As Nicholas had an astrolabe by which he could check the direction in which the compass needle pointed, he was the first to discover that the needle diverges farther and farther from true north as one travels northward along the eastern coast of North America. But to the people in Europe this was all incomprehensible. To them the identity of the magnetic pole with the arctic pole was an inherited and undeniable conclusion without any dissenters. That is why the cartographers for 200 years afterward continued to place Nicholas' magnetic mountain at the North Pole.

This black magnetic mountain was probably Mount Minto, 1060 feet high, in the northern part of the bay, which can be seen from all the surrounding islands. Nicholas may have thought of it as a magnetic center because it prevented further search for the magnetic pole. It stands off the northeastern point of Southampton Island which extends southward and westward for 200 miles. Nor could he push northward by ship because the Coast Pilot says that "the steep northeastern coast [of this island] is practically always blocked with ice from Foxe Channel." (P. 265).

Cnoyen mentions the survivors of the expedition three times:

"Anno Domini 1364 came 8 of these persons to Norway to the King. Among them were two clerics. One of them had an astrolabe who in the fifth generation was descended from Brusselites. These 8 were of the original party who had penetrated into the northern regions."³⁹

On the next page there is a similar but somewhat different statement:

"The priest who had the astrolabe told the King of Norway that a Minorite from Oxford who was a good astronomer had come into these northern islands in 1360. He separated from the others who had come ... and wrote about all the remarkable things among these islands in a book which he gave to the King of England which he in Latin called Invenio Fortunatae. This book begins at the last climate, that is to say from latitude 54, and goes up to the Pole."³⁹

Here we find that while the astrolabe was first exhibited by Nicholas, it later came into the temporary possession of Ivar Bardson in exchange for a testament. Later Cnoyen says that when Nicholas left Norway, he gave the astrolabe to his seven shipmates. Cnoyen writes that Ivar, in repeating what Nicholas had told about a magnetic mountain, says:

"And it is so high (so the priest said) that his people, who had received the astrolabe as a gift from the Minorite, had told him, and that he had himself heard the Minorite say, that the mountain was visible from the shore of the sea" etc. (page 268 recto).

³⁹ Ibid. 266 verso and recto.
By this we see that Nicholas was not alone nor did he travel by his "Magical Arts" as Mercator says a dozen pages back. He must, of course, have had a ship and some men. And this ship was manned by Norwegian men of whom seven survived and returned to Bergen with Nicholas and Ivar. In other words, they were members of the royal expedition, and Nicholas was its astronomer and navigator.

**THE FOURTH REPORT** tells of what happened to the larger part of the divided expedition. This is told on the Kensington Stone, concerning which there has been much dispute. This stone was found in the Fall of 1898 by a recent immigrant from Sweden while clearing a tract of primeval timber land. It contains a long inscription in runic characters. Copies of the inscription were sent to scholars in the University of Minnesota, Northwestern University, and the University in Oslo, but none of the scholars in these institutions were able to transliterate the entire inscription. It was therefore rejected on philological grounds as "a clumsy forgery," and the stone was forgotten. Nine years later the inscription was correctly translated, but by that time it had a bad reputation, and those who had rejected the inscription without knowing its contents continued their opposition.31

The following is a transliteration of the inscription. To save time and labor, the runemaster omitted all the words that could be omitted without impairing the sense of the message. These omissions are supplied in parenthesis:

(We are) 8 Goths and 22 Norwegians on (an) exploration voyage from Vinland through the West. We had camp by (a lake with) 2 skerries one day-voyage north from this stone. We were (out) and fished one day. After we came home (we) found 10 (of our) men red with blood and dead. AV(E) M(ARIA) save (us) from evil.

(We) have 10 of (our men) by the sea to look after our ships 14 day-voyages from this island. (In the) year (of our Lord) 1362

This inscription parallels the Nicholas narrative. He is reported to have said that he in the year 1360 began his research among the northern islands at latitude 54°. This parallel enters Labrador at Hamilton Inlet. As this place loomed so big in his mind, he no doubt found something here of special interest. This apparently was the big variation of the compass. When he took his observation and checked his compass he would find that the needle did not point north but northwest. It showed a variation of 38 degrees

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from north! No doubt he made many observations in the vicinity to see if a local magnetic center caused this great aberration, because if it did not, then the magnetic pole was not at the north pole, but more than a thousand miles below it! This was a great discovery indeed, and explains the title of his book, De Inventione Fortunata: It was a fortunate discovery indeed to find that the magnetic pole was far from the North Pole.

The men who left the Kensington were also at Hamilton Inlet in 1360, because they arrived in Hudson Bay in the Fall of 1361. Hamilton Inlet is more than a hundred miles long with a shore line of about three hundred miles, with plenty of timber for fuel and housebuilding and also good fishing and hunting. It would therefore seem an ideal place, in which to look for the lost Greenlanders. As Hudson Strait is navigable for sailing vessels less than four months in the year, it seems fairly certain that the search party spent the winter of 1360–1361 somewhere on Hamilton Inlet. The summer of 1361 would be needed to bring the expedition to Hudson Bay, where we find it in 1362.

Is there any evidence that the men who left the Kensington Stone visited Hudson Bay? Yes, the inscription says they came from the north, from an ocean (havet), which they estimated was about a thousand miles from the finding place of the stone. This is approximately correct.\textsuperscript{52}

Nicholas reports that after he arrived in Hudson Bay, the expedition of which he was a member divided in two, but he does not say why this was done.

This is explained, however, on the inscribed stone which says that out of the total number of thirty, twenty men decided to go inland, “leaving ten to stay by the ships.” This is corroborated by Nicholas who is quoted as saying that after the expedition divided he had abundant opportunity to make extensive explorations. Ten men were left with the ships in Hudson Bay, but when he returned to Bergen he had only eight survivors including himself. This is what might be expected, because Hudson Bay is a cruel place in which to spend the winter. Nicholas was fortunate in losing only two.

The Kensington inscription says that this division took place in 1362, and this agrees with Nicholas’ schedule because in 1363 he made the voyage to Greenland, about two thousands miles away.

Thus we see that the Kensington inscription is not an isolated freak without historical connection, but reports a tragic climax in

\textsuperscript{52} The distance is given as “1½ day-voyages.” This was a nautical unit of distance originally based on the length of an average day’s sail—about 75 English miles. These men did not do much sailing, but arrived at each unit by dead reckoning. See Wm. Hovgaard, Voyages of The Northmen, 1914, and G. M. Gathorne-Hardy, Norse Discovery of America, 1921.
one of the world's greatest exploration expeditions. It is one of four reports about King Magnus' royal expedition, but viewed from different viewpoints. To the remorseful King and the Commandant it was an earnest endeavor to save the souls of the neglected Greenlanders from eternal damnation. To the scientist, Nicholas of Lynn, it was a grand achievement in the fields of navigation, magnetic attraction and geography. While to the adventurous young men who went inland

"For to admire and for to see,  
For to behold this world of ours,"

it was a venture into a land of romance which ended in a staggering tragedy. But with staunch fortitude they inscribed their story on a stone so that later travelers might know of their earlier presence.

With these facts before us we can now make the following summary:

1. The Kensington Stone tells of a voyage to Hudson Bay in the early 1360's. The Nicholas of Lynn report also tells of a voyage to Hudson Bay at this time.

2. After arriving in Hudson Bay the Norse expedition divided in two, the larger number (20) going inland, leaving ten men to take care of the ships. The Nicholas narrative also says that the company divided after reaching Hudson Bay.

3. According to the Kensington Stone, this division took place in 1362. The Nicholas report does not give the year, but, as shown above, it must have been in 1362.

4. The twenty men who went inland met with disaster and none returned. Evidently the group that parted company with Nicholas also came to grief because in 1363 when he returned to Greenland he had only seven survivors besides himself.

5. The Kensington Stone is a record of a Norse exploration (eight Goths and twenty-two Norwegians). Nicholas' party were also Norsemen because all his seven surviving companions returned to Norway, not England.

6. Professor Storm says that the royal expedition returned to Bergen in 1363 or 1364 (see note 22, above). According to Jacob Cnoyen this was the same time and place when the survivors of the Nicholas of Lynn returned.

The above identifications prove that these three narratives all deal with the same expedition.