

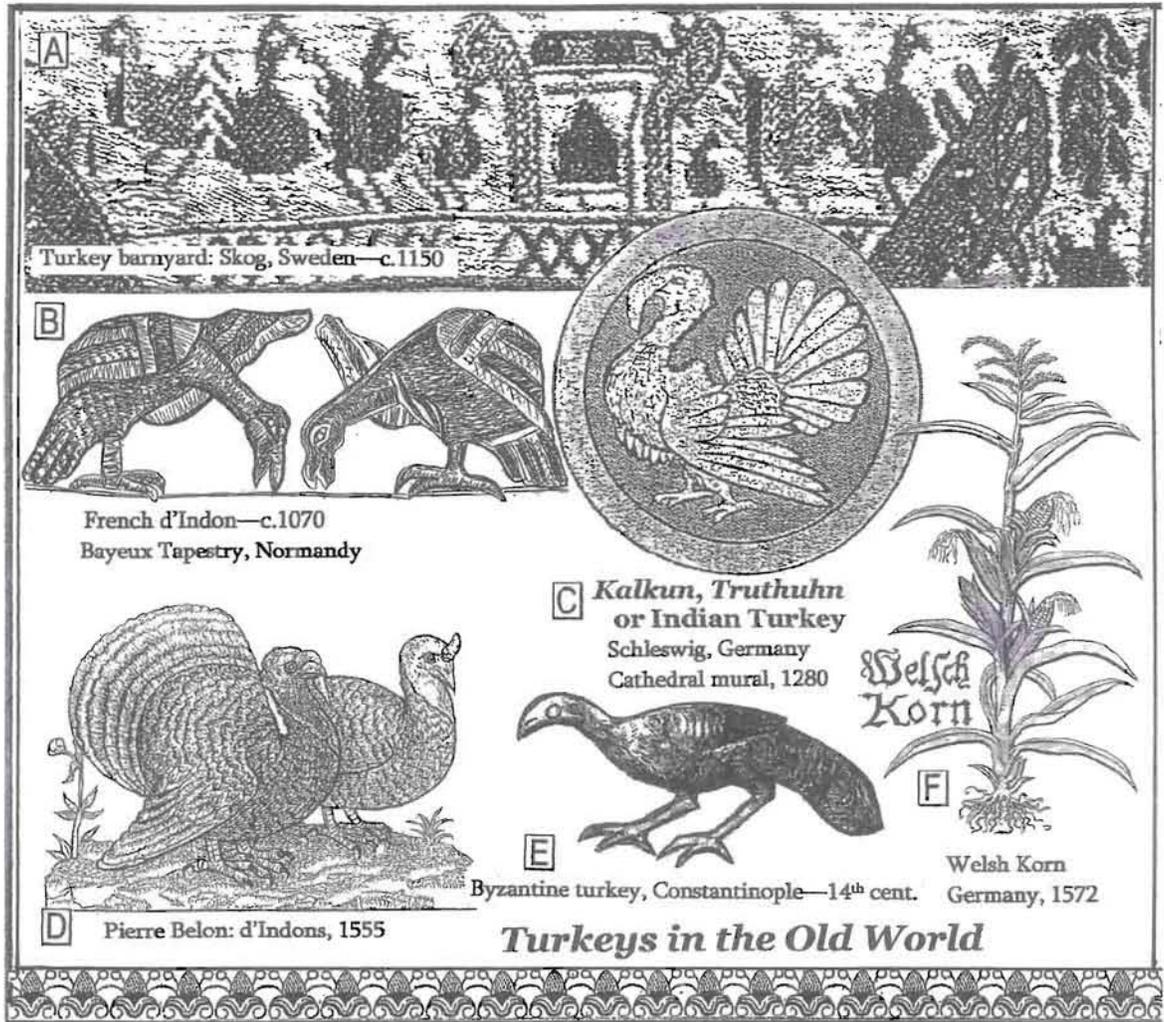
During the next three centuries, the climate was kind to the farmers and fishermen of Greenland. The first colony split into two settlements: the Eastern and the Western Villages. Salmon and halibut were abundant; and long growing seasons provided ample grain supplies for the rapidly-expanding population. By the end of the 13th century, about six thousand people occupied the two settlements. Many of the sailors were engaged in businesses being operated by Icelandic barons. In addition to harvesting and hauling lumber, they collected walrus ivory, bearskins, falcons, hides, and whale oil. Most of the wood came from the forests of *Markland* – which was the Norse word for Newfoundland. Bearskins came mostly from “Western Greenland” (or Labrador).

The King’s Tax brought considerable wealth to Norway with the result that during the Reign of King Haakon IV, a new cathedral was built at Trondheim; and a new castle was erected in Bergen. Due to these grandiose public building projects, the mid-13th century has been called “the Golden Age of Norway.” Naturally, when the squabbling barons of Iceland threatened the King’s prosperity, Haakon issued a decree in 1261 establishing his supremacy over all the foreign provinces including the two Greenlands, Iceland, Icelandic settlements on Newfoundland (called “the Icelands”), Markland, Vinland (in the New England Region from Nova Scotia to Massachusetts), and an obscure territory called *Landamu* (probably Rhode Island to the “Grand River” – that is, the modern-day Hudson). (1)

Thriving Colonies in Greenland—then Disaster!

Those few historians who are cognizant of King Haakon’s declaration tend to regard it as a mythical or literary extravagance that had no impact upon the lives of New World residents. However, a Spanish Franciscan wrote a book about his world travels – one of which involved a trip to a Western Colony called *Ibernia* (or Great Ireland) that was situated across the Atlantic Ocean west of *Irlanda* (that is, the modern-day Country of Ireland). The friar reported that the overseas residents had very little wheat – thus not much bread. However, there was a delicious fat bird that was boiled or roasted. This is probably the first European report of America’s wild turkey. The bird was imported by Romans who called it a *d’indon* (or “bird of India”). German merchants, sailing in the Hanseatic League, imported turkeys into Northern Europe. They were called by various names such as “Welsh hen,” *kalkun*, *truthuhn*, or “turkey hen.” Merchants who carried Welsh hens also sold the appropriate bird feed under the name: “Welsh corn.” It was the popular American Indian grain that is otherwise called *maize*. The New World poultry was featured on a tapestry at Skog, Sweden, dating to 1150. Numerous turkeys can be seen along the borders of the Bayeux Tapestry dating to c.1070.

According to the friar, the Irish manager of the colonial trading-post flew the flag of the Norse King – which was a black lion rampant on a gold field. This banner was pictured in the friar’s book *El Libro de Conocimientos* (or “Book of Knowledge”). It identified the post as a possession of the Norse King. The Franciscan also reported that the Irish Colony paid taxes to the King of Norway. Such payments would have included an additional ten-percent levy on goods sold to be forwarded by the royal tax collector to the presiding bishop in Iceland or Greenland. (2)



The wild American turkey gobbler roamed the forests of Mexico and North America. It was imported to the Roman Empire along with "turkey com" and "Indian millet" (or maize). Carried onboard Turkish grain ships, it acquired the name *turkey* in Britain. In Gaul, it was called *d'indon* (or "the bird of India"). Norse ships carried the fowl to Sweden where it was known as *kalkhun* or Welsh hen. The tapestry from Skog, Sweden (A), portrays a turkey barnyard. Toussaint-Somat (1994) noted that *d'indons* (or turkeys) were served at a French wedding feast in the 14th century. They are common on the Bayeux Tapestry (B). Hansa merchants resumed imports of the tasty fowl in 1250 (C). The bird was known in Germany as *trut huhn* or "Welsh hen." Targus (1552) noted that birdfeed (F) was also called "Welsh corn"—indicating that it was imported from the Welsh Colonies. A.W. Schroger (1966, 471) noted that ancient turkey bones were common in Ireland. The biologist, Pierre Belon (1555) identified the French bird (D) as an import from America. None of the names used for the fowl in Europe suggest a post-Columbus or a Spanish source.

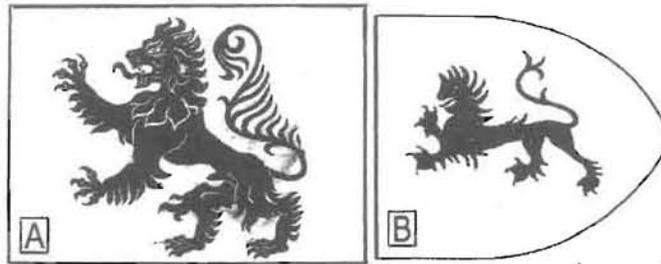


Figure 1 Norse Royal Flag (A) from a medieval print is very similar to the Norse Royal Banner (B) that a Spanish Franciscan reported seeing at a Celtic trading-post in *Ibernia* (or “Great Ireland”) in the Far West. Taken from *El Libro de Conocimientos* (“The Book of Secrets,” c.1330).

During the 13th century, merchants from the Hanseatic League began taking over the cartage service for cargoes of salted and dried codfish, lumber, furs, and whale oil being shipped from the Icelandic Isles to Northern Europe. Worsening storms and high seas on the Atlantic Ocean resulted from a drastic climatic shift called “the Little Ice Age” (roughly 1300-1850). German shipyards increased the size and durability of their merchant sailing vessels called *kogge* (cogs) and carracks. Cogs carried only a mainsail; and they hauled up to 100 tons of cargo. Carracks had three sails; and they carried up to 300 tons of dried fish, lumber, or oil. Norwegian merchants were at a great disadvantage, because they continued building small *knarrs* on the beaches. These vessels carried less than fifty tons of cargo; and they were unable to sail upon the stormy Atlantic seas.

Under the original Norse-German treaty, Hansa vessels were required to register their cargoes at Bergen and pay the appropriate duty to the king’s treasurer. However, by the middle of the 14th century, most Hansa merchants simply sailed right on by the Port of Entry; and they took their cargoes directly to North European harbors. Thus, we find in the port records of London notice of lumber cargoes from “North Norway” that were never registered in Bergen. (3)

The term “North Norway” was used as a reference to the Norse provinces across the North Atlantic. This was because most mariners used the magnetic compass as a navigational guide. It was customarily assumed that the Magnetic North Pole of Hudson Bay was also the location of the Geographic North Pole. Many medieval maps showed Greenland, the Icelandic Isles, and even Terra Nova (or the “New Land”) directly north of Norway – when their actual location was west of Iceland.

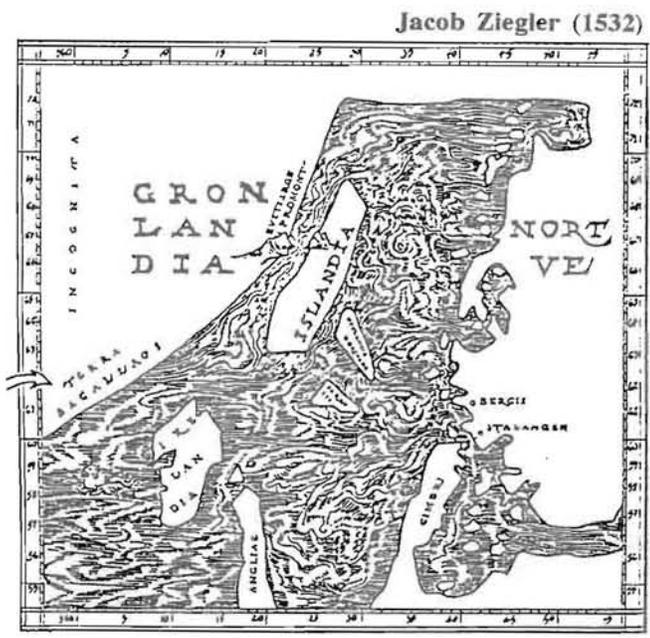


Figure 2 The Contarini Map of 1506 shows Greenland (G) as a peninsula directly north of Norway (N).

Hansa merchants encouraged young men to join the overseas sailing crews by promoting the belief that the Western Isles were a warm, beautiful land of attractive Native women and excellent wines. Thus, the Capital City of the League at Lübeck published maps showing the legendary “Vinland” directly northwest of Norway. (4) Maps that accompanied a book called the *Rudimentum Novitiorum* (or “Introduction to Navigation”) were published at Lübeck in 1475 and at Paris in 1488. Practically everybody in Europe knew that Vinland was located across the North Atlantic Ocean. Most European merchants were aware that this overseas province of “North Norway” was the source of vital shipments of codfish, lumber, furs, and whale oil.



Figure 3 Vinland maps from the *Rudimentum Novitiorum* used two spellings for Vinland. Those issued at Lubeck in 1475 spelled it Vinlād – where the lād stood for “land.” The Paris version in 1488 spelled it winlād. Thousands of copies of this map circulated in Northern Europe.



source: Thompson (1994, 271); Brantson (1965)

Figure 4 Ziegler’s Map shows the location of “Codfish Land” at the extreme southern coast of a huge Northern Continent that included the Arctic Isle of Green Land as well as the East Coast of North America. *Terra Bacallaos* (arrow) represents Newfoundland – which was the principal source of cod.

As the weather continued to worsen in Greenland, and the growing seasons grew shorter, residents of the Western Settlement considered moving to unoccupied territories farther south in Vinland, Markland, Landanu, and the more temperate region they named “Green Land” in honor of their old Arctic homeland. Portuguese sailors called the Norse freehold farmers *laboradores* (or “laborers”); and the place they occupied near the Gulf of St. Lawrence became known as “Labrador.” It was also identified as “Green Land” on many Renaissance maps – leading to further confusion among historians. Taxes collected for the Vatican (in kind) and itemized in church documents included brown and black bearskins from forest animals that were native to Labrador. Nevertheless, the reports indicated that the payments had come from “Greenland.” (5)

In 1350, the Deputy Bishop from the Eastern Settlement in the Arctic Isle was sent to investigate the status of the Western Settlement. Ivar Bardarson reported to his superior that he had found the western village entirely abandoned. Problems facing the eastern villages included foul weather, native uprisings, and pirate attacks. According to the *Historia de gentibus septentrionalibus* (Rome, 1555), King Haakon Magnusson led his battle fleet into Arctic Seas during the 14th century in an effort to suppress native Inuit raids and pirates. Shortly thereafter, the eastern villages were also abandoned. As the local farmers and fishermen lacked suitable vessels for making an exodus from the inhospitable island, they probably made arrangements to sail onboard the many Hansa carracks that frequented the Arctic Seas. It is also possible that they hitched rides on a fleet of Kalmar Union ships that was sent against the Vitalien Pirates in 1398.

The last reported vessel from Greenland that was mentioned in the *Icelandic Chronicle* was a lumber ship that had picked up a cargo at Markland in 1347. As late as 1492, Pope Innocent III appointed a Greenland Bishop. However, whether this “Green Land” was intended to represent an Arctic Isle or western mainland is unknown.

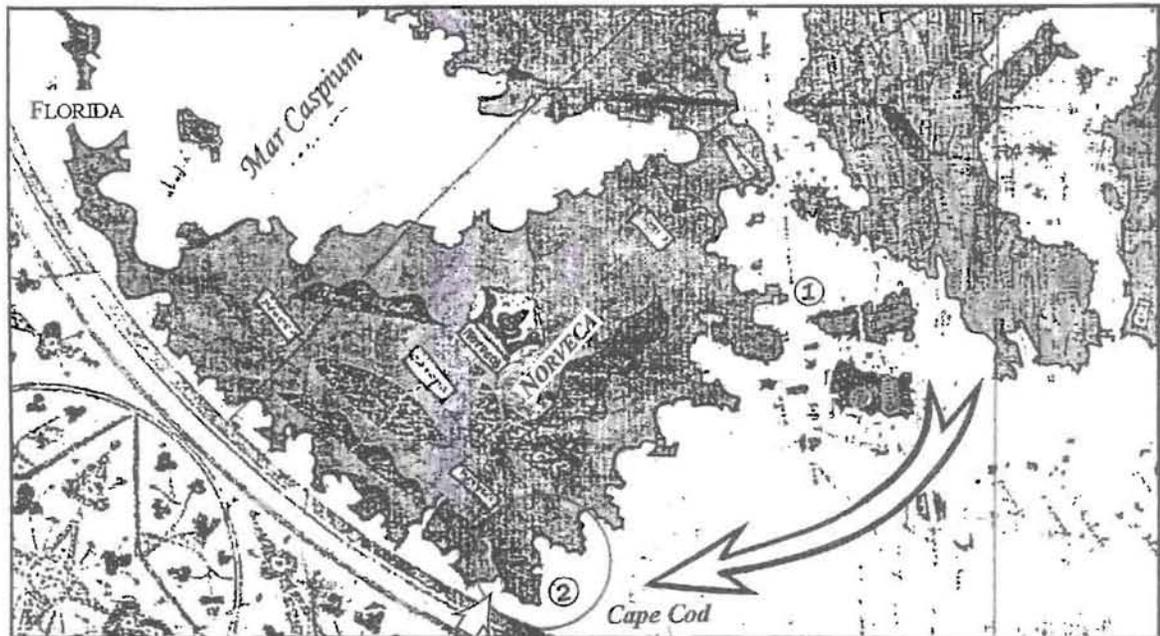


Figure 5 Albertin di Virga's 1414 Map of the Nordic Realm. The northwest quadrant from this Venetian map shows the Continent of *Norveca* (or North America). Greenland (1) is north of England; Cape Cod (2) and Narragansett Bay (short arrow) are west.

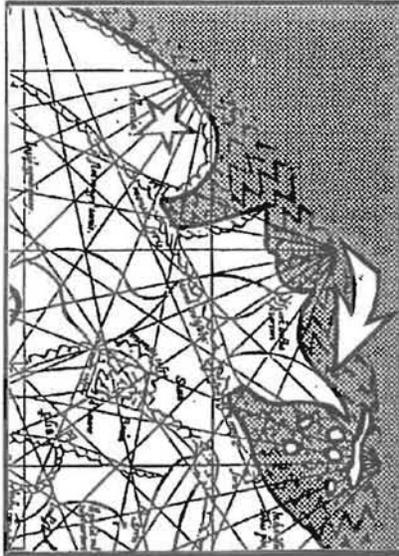
Where did refugees from Greenland settle in America?

As part of a joint effort in strategic planning, King Edward I of England and Haakon Magnusson of Norway-Sweden sponsored a survey of the new Western Mainland that had for the past century remained a generalized *Terra Incognita* (or “Unknown Land”) on official maps. According to the English historian, Richard Hakluyt, this survey by teams of English Franciscans was led by an Oxford mathematician by the name of Nicholas of Lynn. The Franciscan Friars were trained in astronomy and surveying; and it seems likely that they used astrolabes, telescopes, theodolites, and compasses that were derived from the latest Persian equipment. Marco Polo, who was a Franciscan associate and protégé of Roger Bacon, probably brought examples of Persian devices and training manuals on a trip to Oxford in about 1310. The equipment was subsequently copied and mass produced by factories at the University that were under the supervision of the Deans – Merton and Rede. (6)

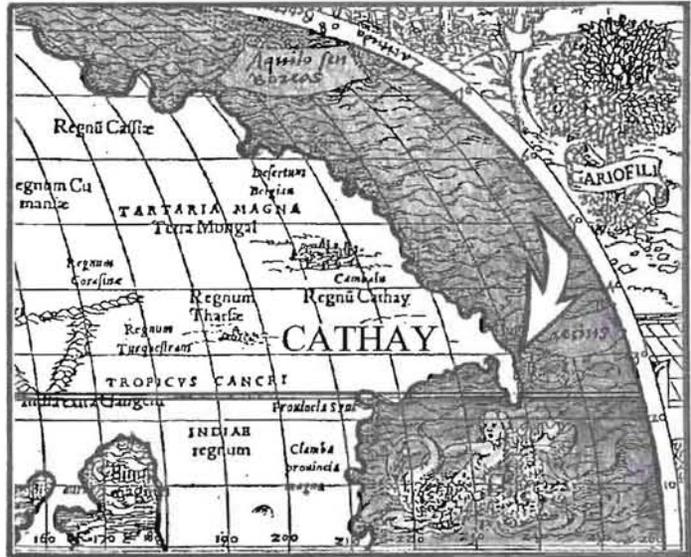
The friar’s manuscript, *Inventio Fortunatae* (or “Discovery of the Roman Fortunate Isles”) was presented to King Edward III in about 1360. It was known to King Edward’s successor, King Richard II, who subsequently engaged in developing a New World commercial alliance with Queen Margaret of the Kalmar Union. Although the book is now presumed to have been lost, it was evidently copied repeatedly. Those players who are known to have examined manuscript copies included John of Gaunt (King Edward’s son and Regent to the adolescent King Richard), John Day (a powerful Bristol merchant), Bartholomew Las Casas (the official biographer of Columbus), and the Lord High Admiral of Spain. Columbus and his son, Ferdinand, were also familiar with the document. In any case, America’s Eastern Seaboard in the 14th century was described in sufficient detail to enable English, Bristol, and Kalmar planners to evaluate suitable coastal regions for the placement of a new colony of Greenland refugees. The number of individuals from the Eastern Settlement probably totaled about 3,000 men, women, and children. These refugees would have been carried south along with hundreds of farm animals and all the necessary fishing and farming equipment needed for a colony.

Several ships carrying Venetian survey teams and navigators followed the travels of English Franciscans between 1360 and 1400. A Venetian cartographer, Albertin di Virga, prepared a map in 1414 that was based on the 14th century survey. It shows the entire Eastern Seaboard of North America. DiVirga called the Western Mainland *Norveca* (which was the Venetian word for “the Realm of Norway”).

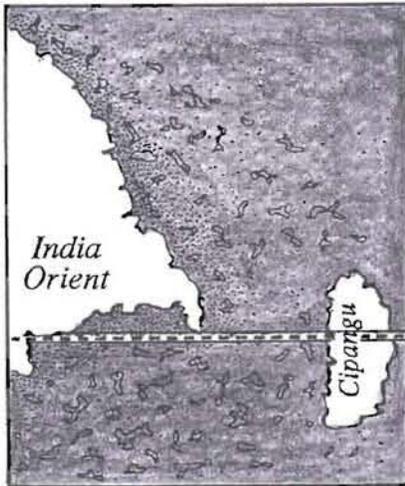
It was also during the 14th century that Venetian surveyors charted the coast of Florida and the coast of the Arctic Island of Greenland. Marco Polo’s map of the Florida Coast was included as an appendage to Pietrus Vesconte’s 1315 map that was published with *Liber Secretorum Fidelium Crucis* (or “Book of Secrets for True Believers in the Cross”). It was included in a book by Marino Sanudo (1320) that promoted a new Crusade to the Holy Lands. It never took place – partly because the French King, Philip the Fair, arrested Knights of the Templar Order. Another version of the Florida Coast was included as a southeastern peninsula of Antillia on a map by the Venetian cartographer, Andrea Bianco, in 1436. Evidently, the Venetians considered establishing citrus or tobacco plantations in the temperate peninsula; and they needed a map. (7)



Marino Sanudo, Venice—c.1320



Sebastian Münster, Swiss-German—1532



Henricus M. Germanus—1490

Florida on the Coast of China

We know that Marco Polo's "Florida Map" was in existence by about 1315, because Marino Sanudo and Pietrus Vesconte included stylized southeastern peninsulas of "Tartaria" (or Florida) on their maps in the *Book of Secrets* (c.1320). They attached Marco's Florida Peninsula to the East Coast of Asia, because that was the only place available on Medieval Church Maps that followed a biblical doctrine that presumed there were only three continents on earth. These maps typically showed Asia (or India) directly west of Europe. This same location was used for Florida on maps by Henricus Martellus Germanus in 1490 and Sebastian Münster in 1532.

We can tell that Marco's original map was a scientific map of Florida, because it has the exact coastline of Florida on the Bianco Map and on maps by Germanus and Münster. Also, the southeastern tip of Marco's Florida reaches down to the Tropic of Cancer at 23.5°N.

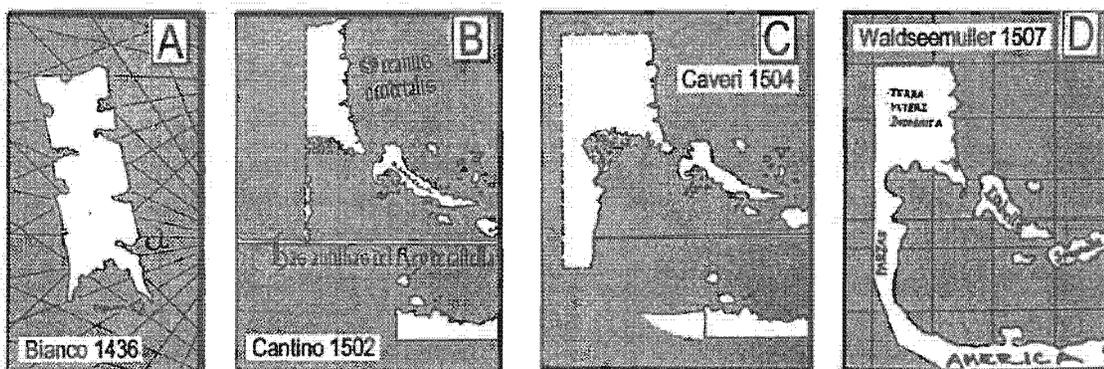
This is very close to the latitude of the tip of Florida on a modern map. There is no monster peninsula at this latitude on the Coast of China; but there is on the East Coast of America. Portuguese navigators knew the approximate distance across the Atlantic to Florida; and they knew the precise latitude. Portuguese agents (Henricus Germanus and Martin Behaim) used this knowledge to fool Columbus and other Europeans into thinking that China was directly west of Spain. Thus, we notice that the secret *Padrao* (or King's Map) is reasonably accurate; whereas the published maps by Germanus and Behaim showed a false and deceptive geography. In this manner, the Portuguese protected their monopoly over the southern route to the Spice Islands.



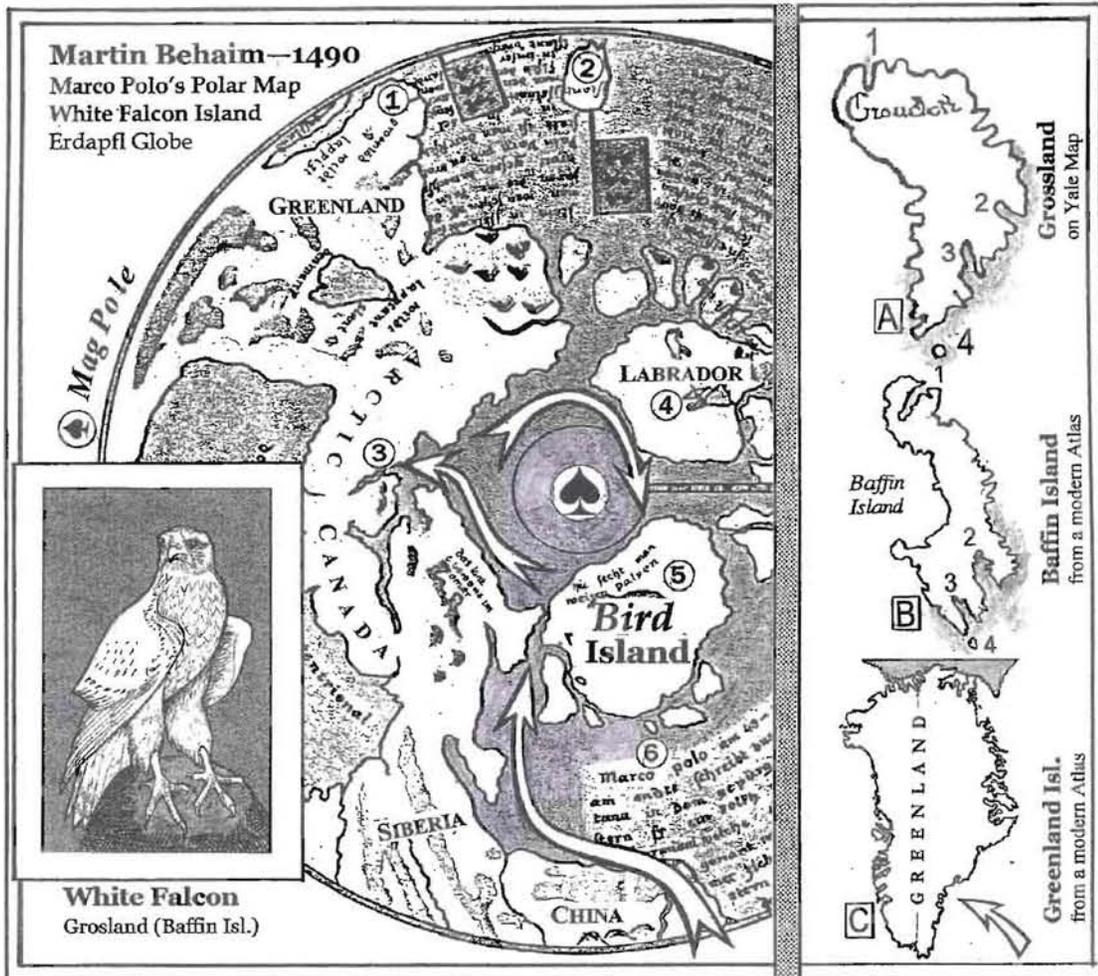
Marco Polo’s Florida Map evolves into America’s East Coast

Marco mentions in the Rossi Letters that he was familiar with the East Coast of “Antilia.” This was the ancient Roman name for mainland and isles in the Caribbean. It was also called “Florida” (arrow). Marco’s map (above, left) was incorporated into a map that the Venetian cartographer, Andrea Bianco, prepared for the Portuguese in 1436. This isle, Antillia (or the Isle of Seven Cities) was the target for Portuguese explorers. By 1502, their improved image of *has Antillias* was shown on the Cantino Map (B). Cantino’s source can be identified by the name (Antilia), location (mid-Atlantic), and shape (hook-shaped peninsula at SE tip). Marco called it “Antilia” in the Rossi Letters, c. 1320.

This embryonic New World Map was expanded by Caveri in 1504 (C); and by 1507, Martin Waldseemüller identified this cluster of isles as part of America and the “West Indies” (D). Clearly, Marco Polo began the scientific mapping of mainland that was eventually called “North America.” Bianco’s Map is in the collection of the Newberry Library at the University of Chicago. See Thompson (*Marco Polo’s Daughters*, lulu.com, 2011) for the Rossi Letters.



Map pages are from Gunnar Thompson, *Viking America*, lulu.com, 2012.



Marco Polo's Northwest Passage to the Polar Regions

A map and globe by Martin Behaim (1490-1492) offers a reasonably-accurate portrayal of Marco Polo's voyage along the Northwest Passage with a Yuan Chinese birding expedition circa 1280. The objective was to obtain a brood of white gyrfalcons from "Bird Island." Martin had difficulty with the enormous magnetic declination in the Polar Regions. He accurately shows Greenland (1) northwest of Europe; however, his Iceland (2) is mistakenly placed west of Greenland instead of east. The Chinese winter camp was along the Mackenzie River (3). Labrador (4) was where the Icelanders hunted bears; and Baffin Island (5) was the source of "white falcons." A Chinese map of Baffin Island (A) can be identified by diagnostic markers: 1) Arctic Bay; 2) Cumberland Sound; 3) Frobisher Bay; and 4) Resolution Island. The same markers are seen on a modern map of Baffin Island (B) but not on a map of Greenland (C). The Chinese map was inserted into the Yale Vinland Map of 1440; and critics mistook this map of Bird Island (here spelled "Grouceland") as being a fraudulent Greenland Island that supposedly wasn't mapped until Robert Peary arrived along the northeast coast on a dogsled in 1900.

The Venetian map of Arctic Greenland was part of a plan to chart the isles and coasts of Marco Polo's Northwest Passage through Arctic Seas to the Pacific Ocean. In his travelogue, *Discovery of the World* (Genoa, 1299), Marco Polo reported his Arctic Voyage in 1280 to an island "beyond the Pole Star" that was situated in the Canadian Arctic. He noted that this was the habitation of white gyrfalcons. Icelandic merchants obtained white gyrfalcons from Baffin Island (which was known to the ancients as *Groclant* or "Great Land"). Among the maps that Marco Polo brought back from China in 1295, there was an excellent survey of the Baffin Island shoreline. This shoreline was included in the Arctic Region on a c.1440 Swiss Franciscan map that has become known as "the Yale Vinland Map." The coastline of *Grouclant* from this map is a reasonably good approximation of the coastline on a modern map. However, traditionalist historians made the mistake of assuming this enigmatic *Grouclanda* was a fraudulent portrayal of the Arctic Isle of Greenland. Actually, Greenland Island does not appear at all on the Yale Map. But it is clearly shown in excellent detail on Mercator's World Map of 1569. Chinese and Persian surveyors accompanied the Polo Expedition to the Arctic in 1280; and they began the work of mapping the West Coast of the Arctic Island. Between 1320 and 1385, Venetian surveyors who were trained in the Persian skills and who had sophisticated mapping equipment resumed mapping the East Coast of Greenland. By 1565, Mercator obtained copies of the complete Greenland Island survey; and it was from this source and not Gian Ramusio's 1555 publication of the so-called "Zeno Narrative" that Greenland Island was drawn on his famous map showing the newly-developed "Mercator Projection."

Venetian explorers also made an excellent survey map of the territory between the Hudson River and Cape Cod. Evidently, it was the intention of a consortium of councilors from Northwest European Countries to establish a new colony along the Eastern Seaboard that could effectively meet the needs of maritime merchants, sailors, fur trappers, loggers, lumbermen, and farmers. This consortium included the Kalmar Union (Denmark, Sweden, Norway), England, Scotland, Holland, Portugal, and Venice. England was represented primarily by merchants of Bristol. Scotland was involved due to the fact that northern isles (called the Orkneys) remained Norwegian possessions; and the Norse Earl of Orkney was simultaneously the Scottish Ambassador to Denmark and also the Baron of Caithness in Northern Scotland. The Dutch and Portuguese were included because of their strong marital ties to the English House of Lancaster.

The site that was chosen for the new colony was Narragansett Bay. This Bay – called "Norombega" – was identified on Mercator's Map by the placement of an icon representing a European-style Capital City. Mercator noted on his map that a pilgrim priest from King Arthur's old Colony of Albion (or "Albania") had been interviewed in Norway by a Dutch journalist named Jacob (or "James") Cnoyen. This interview took place at the Court of King Magnus VII in 1364. It was the subject of a lengthy letter that Mercator sent to John Dee (Queen Elisabeth's Chief Geographer) in 1577. The priest told Cnoyen about a surprising event that occurred in the Western Isles. He had encountered a Franciscan Friar who was traveling across the country taking celestial measurements with an Arabian astrolabe (which is a circular brass device that is used to calculate latitudes). After the friar had completed his work, he presented the brass device to the Welsh priest.

The priest who had the astrolabe related to the King of Norway that in 1360 AD, 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 he put into writing all the wonders of those islands. He gave the King of England this book, which he called in Latin *Inventio Fortunatae*, which book began at the last climate, that is to say at Latitude 54° continuing to the Pole. (8)

As most mariners used the magnetic needle for navigation, the “Pole” that Jacob Cnoyen was referring to in his book, *Travels in the North* (c.1364), was the Magnetic North Pole that was situated someplace between Baffin Island and Labrador in Canada. Both Cnoyen and Mercator were aware that merchants from Bristol and from the Hanseatic League carried on regular commerce with the Western Isles – from which they obtained deer-hides, bearskins, beaver pelts, lumber, stockfish, and whale oil. From time-to-time, these merchants provided passage from “North Norway,” or *Norveca*, to Trondheim (a City north of Bergen on the Norwegian Coast. Narragansett Bay was a common destination for sailors during the 14th century – mainly because it was the most-convenient harbor along the East Coast that was open year-round. It provided ample room for anchoring fleets of ships; the Natives (who included many people of mixed ancestry) were relatively peaceful; there was easy-access to the Grand Banks fishing grounds; and the 200 kilometer-long horizontal coast between the Grand River (later “the Hudson”) and Cape Cod was an easy target for mariners sailing on a “latitude course” directly west of Brittany at 42°N Latitude. The sandy-hook of Cape Cod (perched right at the right-angle bend in the coastline) provided an excellent navigational marker for skippers heading for the well-known harbor.

Giovanni Verrazano spent two weeks at the harbor he called “the Bay of Refuge” in 1524. His detailed description of the region along the extended horizontal seacoast between the Hudson River and Cape Cod is sufficient to identify this “Refuge” as Narragansett Bay. Subsequently, the Dieppe School of Cartography in France issued numerous manuscript and printed maps that gave details regarding its location along the coast of northeastern mainland that geographers began calling “New France.” Verrazano’s visit to the region was quickly followed by the Spanish explorer Esteván Gomez later in 1524 and by the French explorer, Jacques Cartier, who was sent to Canada in 1534 to scout locations for a new French Colony. Thus, Mercator had ample reports and maps that enabled him to identify Narragansett Bay as being the site of King Arthur’s Capital City of “Norombega.”

Verrazano might have seen ruins of English and Scandinavian medieval structures on Rhode Island. In his letter to King Francis in 1524, he mentioned that the local inhabitants were “mostly white” – suggesting that they were descendants of mixed European and Native ancestry. He also noted that the Natives called their territory “Norumbega;” and it extended all the way from the Bay of Refuge south as far as Florida. Right on his heels, or in his wake, the Spanish Captain Gomez arrived at the same bay – where it was reported he loaded

his ships with “slaves from both races” (that is, both Natives and White People). It is also believed that he burned the dwellings – leaving the “city” in ruins. (9)



The Temple-Church in Newport's Medieval Past

High on a hilltop above the City of Newport, Rhode Island, there stands an Old Stone Tower that is almost hidden by the trees of Touro Park. Giovanni Verrazano and Esteván Gomez may well have cruised past the tree enshrouded hillside in their ships without seeing any visible portion of the enigmatic structure.

In modern times, nearly a half-million tourists visit the Park every year to gaze in wonder at the imposing Tower. A nearby brass marker identifies the Tower as being a “Colonial Windmill;” and that has been the most-popular notion ever since heretical religious renegades from Providence founded the City in 1639. The earliest map of the newly-founded “city” was drawn by Henry Bull in 1641. It was later copied by Henry Jackson in 1853. Mr. Bull identified the roadway leading from the waterfront street a quarter-mile up the hill towards the Tower as “Mill Street.” This map suggests that the Tower was already present when the first settlers started building log cabins along the waterfront street that was later called “Thames Street.” At this point in time, circa 1640, Mill Street was situated along the southern outskirts of an emerging, plotted city; and the only two roadways leading up the hill were Griffin Street towards the north and Mill Street along the southern border of land that was plotted for development. (10)

The Old Stone Tower stands three stories tall. It is in the shape of a circle – with the two upper stories resting on an arcade of eight stone pillars that are connected with crude arches. The masonry work is remarkable in that it is an eclectic puzzle of stones in all sorts of shapes and sizes that are held together with seashell lime, sand, and gravel

mortar. The diameter of the structure is about 25-feet – with walls that are about three-feet thick. Pillars are aligned to the eight principal points of earth's geography.

What were early settlers likely to think about this structure?

Nobody believed it was built by the Indians – as none of the local tribes were accustomed to building with stone masonry. The building was larger and broader than most circular towers in Europe that functioned as windmills, lighthouses, watchtowers, or observatories. As it was situated near the top of a hill where wind is best harnessed for milling, this seemed like a good possibility. Also, a recent publication of the *Penny Magazine* (c.1625) featured an illustration of a windmill that was erected at the top of a six-pillar arcade. The mill was originally designed to be an observatory. It attracted enormous public interest from the residents of Chesterton, England.

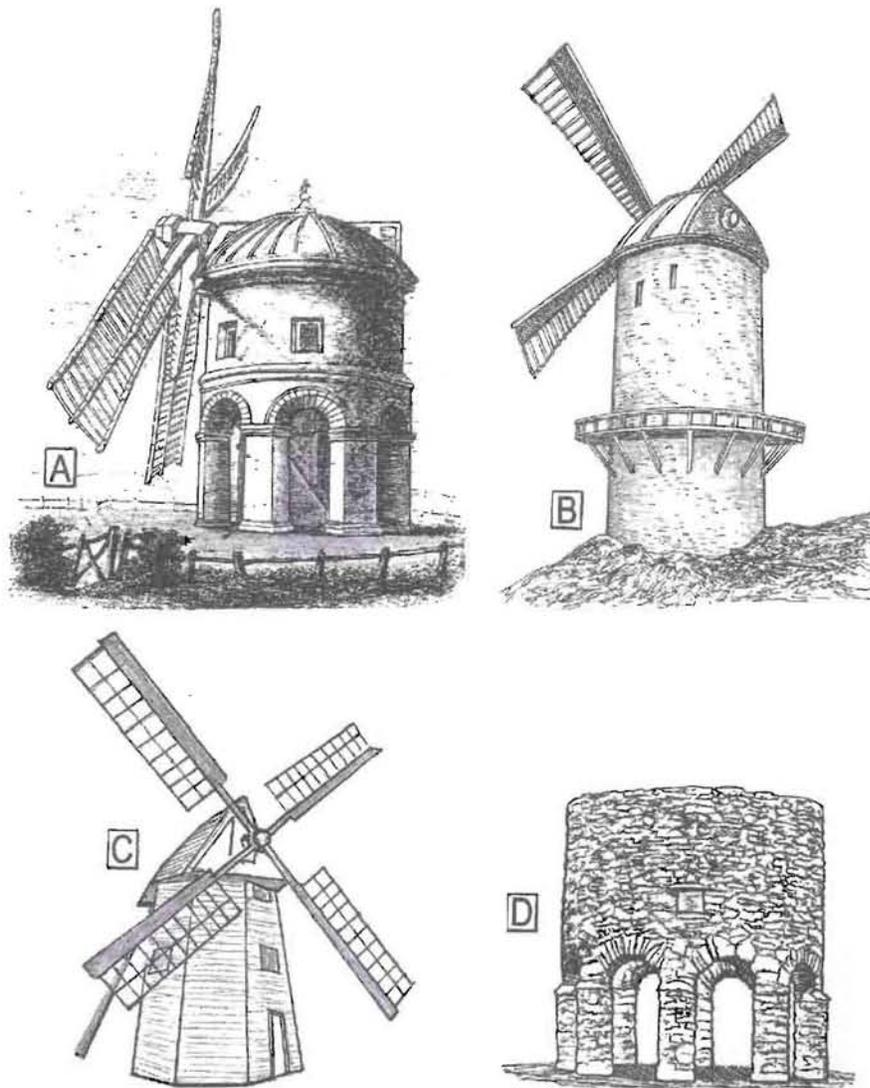


Figure 6. The Old Stone Tower of Newport was identified by 17th century settlers as being a “windmill.” (A) Chesterton windmill with rotating turret top – 1625; (B) Amsterdam water-pumping windmill – 1670; (C) Nantucket Island windmill – 1746; (D) the Old Stone Tower, Newport, RI. The Newport Tower doesn't quite seem to belong with this collection. A standard windmill would easily fit inside the

broad structure. Most windmills were relatively narrow structures that sloped inward at the top. Besides, where would you mount the fan-blades?



Figure 7. The Old Stone Tower stands off by itself way up the hill in this lithograph of Newport, RI, by Newell in 1865. Presumably, this was how the City looked in 1740.

As can be readily seen from Newell's lithograph of the City as it might have appeared in 1740, the Old Stone Tower looked nothing like the contemporary Christian churches of Newport. Typically, churches were built of wood planks; they had bells and steeples; and they were coated with a wash of white paint. So, nobody thought to rename the unimproved roadway called "Mill Street" that extended from the waterfront up the hill past the Tower. Most people called the structure "the Mill;" and the undeveloped hillside where it stood was "Mill Hill," or the "Mill Field."

Local historians became interested in the origins of the structure in the 1830s. That's when a Danish archeologist suggested that the Old Stone Tower was actually a "Medieval Church." Carl C. Rafn (Secretary of the Royal Society of Northern Antiquities in Copenhagen) wrote an article in *Antiquitates Americanae* (1837) indicating that the structure probably dated to the 12th century. He suggested that Greenland Bishop Erik Gnutsson supervised construction of the Tower in about 1121 when he contemplated relocating his seat from the icy settlement of Gardar to warm Narragansett Bay.

Scholars digging through the archives at Newport City Hall came up with only two documents that seemed to have any relevance to the origins of the Tower. The oldest

reference was the “Deed to the Jewish Cemetery” that was dated “June 1677.” Later that year, former governor Benedict Arnold wrote his “Last Will” in which he mentioned “my stone-built wind milne.” This Will, the similarity of the Old Stone Tower to the Chesterton windmill, and the naming of “Mill Street” are the principal reasons cited by local historians for believing that the Old Stone Tower was built by Benedict Arnold as a windmill in about 1673. Presumably, it was erected to replace a wooden mill belonging to Peter Easton that was blown down in a windstorm. Nevertheless, historian Antoinette Downing (1967) acknowledged that the Tower belonged to a medieval heritage:

The form of the building, set on its arcade of eight circular piers, is medieval in character, and resembles the central part of 11th and 12th century Norse Churches. As Kenneth Conant, in a review of Hjalmar Holand’s *America* has pointed out, the closest English parallel is to be found in the so-called Treasury of the Cathedral of Canterbury. A round tower set on an arcade and constructed of dressed stone was built in 1632 by Inigo Jones as an observatory on the estate of Sir Edward Peyto at Chesterton, Warwick County, England, about one hundred and forty miles from Limmington, near Ilchester, Benedict Arnold’s English home. The observatory was later converted into a windmill, which coupled with the fact that there is evidence that the Newport building was once finished with stucco, makes the resemblance of the two buildings even more striking. (11)

There are some problems with Downing’s theory – aside from the fact that Mill Street was already on Bull’s City Map of 1641 more than a decade before Benedict Arnold bought his property there in 1654. Another difficulty with relying on the Street Name to support her theory is the fact that a British Admiralty Map of the City in 1777 noted that the roadway running past the Tower was not called “Mill St.” – it was called “Banister Street.” The author of the British Map, Charles Blascowitz, made no mention of the function of the abandoned Old Stone Tower; he simply indicated with a circle the location where the Tower was standing. He did note the presence of another circular structure north of the City that he identified as being a “Powder Magazine.”

On the surface, it seems to make logical sense to build a mill-tower out of stone, if an earlier wooden structure was flattened in a windstorm. However, if we look at the context of Colonial windmills, we find that all the other windmills in the New England to New Amsterdam Region (which included New York City) were made of wood. The material was cheap, abundant, and the design was well-known to carpenters who followed the Dutch “rotating house” model. As the Old Stone Tower was not about to rotate on its foundation, builders would have needed to adapt the top part of the structure to accommodate a rotating turret to house the wind-fan and gearbox for driving the mill. While this type of structure was already being used in England and Holland during the 17th century, there is no evidence that turret-top mills were present in America until after 1740 – when they were first introduced into the Massachusetts Colony. Furthermore, it would have been impossible to fit a turret on top of the Old Stone Tower – because of its immense diameter and the fact that the walls deviate from being circular by more than a foot. Adaptation of the structure to support a circular, rotating cap would have left evidence in the form of anchoring bolts or holes in the masonry; and there are none.

It would have taken a team of five carpenters about a month to construct the standard type of rotating house windmill out of lumber. It was a relatively lightweight material that was abundant throughout New England. Building a huge mill out of stone was another matter entirely. An immense quantity of stone would have to be acquired and transported by boats and wagons from distant quarries; and then it would have to be hauled uphill a quarter mile from the principal waterfront street – Thames Street where Arnold's house was located. The Tower's three-foot thick walls required an enormous amount of stone and mortar. The mortar, made from oyster-shell lime, was available to masons – but not in the extreme quantity that was needed for a three-story building. Such an undertaking was unknown in Colonial America until the 18th century when major cities began erecting monumental public buildings and fortresses. The weight of three-foot thick walls rising three stories high would have compressed the underlying ground considerably – requiring the prior excavation of ground sufficient to establish a solid foundation that would withstand freezing and thawing without causing the structure to slump and collapse. Archeological excavation near the structure has established that the builders excavated a deep trench where they placed adequate foundation stones to support the enormous weight of the Tower.

We are just getting started; and thus far, we have only hauled about sixty tons of rock uphill a quarter mile and dug a foundation trench. Raising all the stones up as many as three stories in height and cementing them in place would have required three stories of wood staging (with ladders) on both the inside and outside walls of the structure. The amount of lumber required for this construction would have easily built a dozen rotating-house windmills. While wood is a pretty easy material to cut into shape, many of the stones would also require cutting and shaping with metal tools. Masonry is a much more labor-intensive process that requires repeated sharpening and replacement of worn tools. Building archways between pillars – instead of solid stone walls – adds additional time and difficulty to the project that would not have been a factor if the walls were continuous around the base of the structure. Only an experienced mason would have attempted such a difficult building design; and there are no similar stone structures anywhere else in Colonial North America. Carrying stones up ladders and cutting stones involves an enormous amount of time and labor. A conservative estimate for site development, hauling materials, building staging, erecting masonry walls, and cleanup of the site following construction is that it would have taken a team of thirty builders nine months to complete. Even Benedict Arnold wasn't wealthy enough to buy himself that sort of a luxury windmill made of stone.

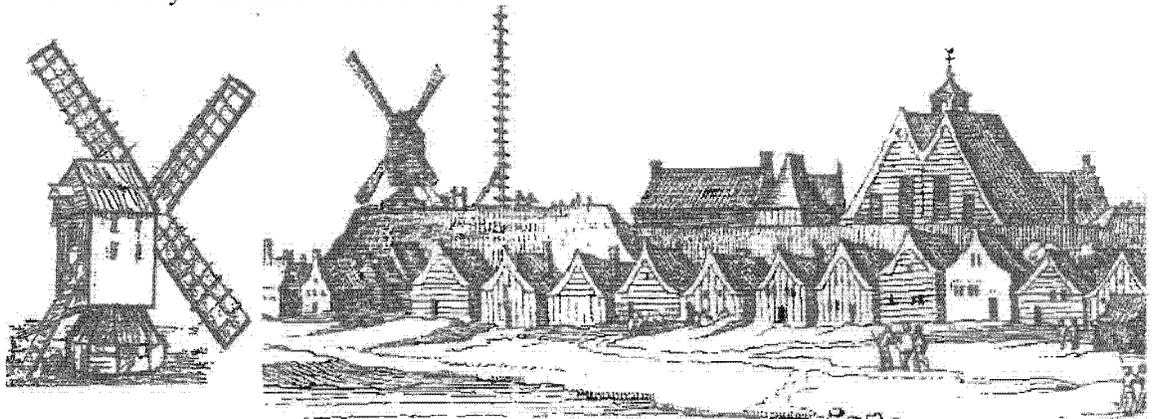


Figure 8. The standard wooden Dutch rotating-house windmill (left) is the only type seen in 17th century Colonial American sketches such as New Amsterdam (right).

Carl Rafn's theory that the Newport Tower was a medieval church gained support from James Whittall (a researcher at the Early Sites Research Society) and William Penhallow – a University of Rhode Island scholar and member of the New England Antiquities Research Association. According to Whittall, architectural features in the Tower suggested that it was built by masons who were trained in a medieval Norse-Scottish tradition. Placement of the Central Tower on eight pillars – aligned to the eight principal geographical directions – was a key design feature of Emperor Constantine's Temple of the Holy Sepulcher in Jerusalem. This structure was surrounded by an octagonal gallery or "ambulatory" around the central tower. Outward extensions on all eight pillars confirmed that the structure in Newport was designed to have a surrounding gallery or ambulatory. In other words, the building was never finished – at least, not in stone. Postholes uncovered about three meters out from two pillars suggested the possibility that a wooden structure may have been built around the central tower. The archways between the pillars were extraordinary. They were constructed of irregular, or "eclectic," flat stones in an accordion or "fan-like" manner. This type of construction was most-common in Northern Scotland and the Orkney Islands. One of the keystones used on the inside of the west window was in the shape of a triangle. Aside from the Old Stone Tower at Newport, this unique design element was only known to have been used in Scotland, the Western Scottish Isles, Orkney, the Shetlands, Ireland, and Greenland. In other words, it was only known in 12th to 14th century regions that were frequented by Scottish masons. Many of these were descendants of Templar Knights; and they were raised in extended families that were familiar with round "Temple-Churches" that ancestors built to commemorate their participation in Crusades. Finally, Whittall noted that the unit of measure used in building the Tower was not the English Foot. Instead, it was the Scottish *Ell* or the Norwegian *Short Alen*.

William Penhallow noted that the Tower was designed to function as a celestial observatory. A narrow window in the top floor is oriented directly to Polaris – the North Star. This window provided an essential geographical north reference point for measuring angles of the sunset that were associated with religious holidays and farming. From the west window on the intermediate floor, it is possible to observe the setting sun during the Summer Solstice as it sinks behind the highest hill on Jamestown Island. Typically, European windmills did not have windows that facilitated celestial observations. Aside from the singular curiosity at Chester, none of the European windmills were set atop octagonal arcades of stone pillars. Such arcades were common in Temple-Churches.

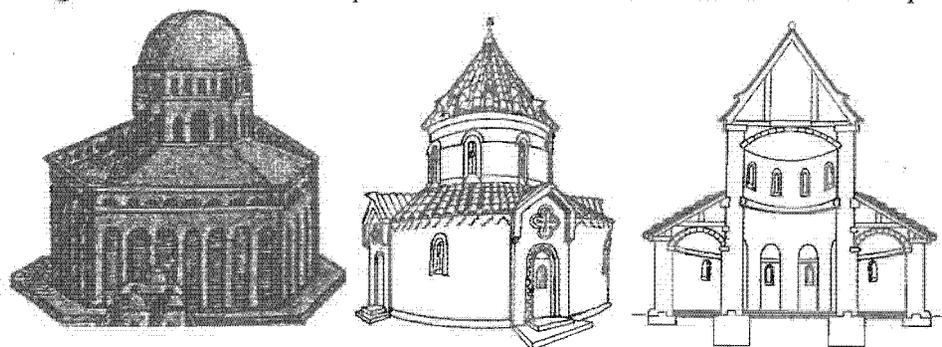


Figure 9. Constantine's Temple (left) in Jerusalem was a model for Temple-Churches built by Crusader knights such as the Tønsburg Church (right) in Norway. The central tower was a circular structure on top of eight pillars – just like those at Newport.

Newport's Medieval Templar Foundations

The “key” to the whole conundrum of “Who built the Newport Tower?” is to be found in the unusual triangular keystones that were used at Newport and in the Orkney Islands of Scotland. In the 14th century, the Orkney Islands were under the jurisdiction of Norway. The new “Earl of Orkney,” who was ordained in 1379, was Baron Henry Sinclair of Caithness – in Scotland. The son of a Crusader Knight who was killed in combat, Prince Henry was raised in the highest traditions of Christian Chivalry. He was a High Justice in the Scottish Court, Ambassador to Denmark, and High Admiral in the Royal Scottish Navy. As Baron of Caithness, Henry was responsible for administering justice, organizing households to meet the transportation, health, and sustenance needs of the community, and he managed the activities of a fleet and an army of knights. On several occasions, he supervised the building of huge masonry castles, palaces, and quays that served merchant fleets sailing between Bergen and the Western Isles.

Prince Henry was bound by duty and ambition to serve the needs of Queen Margaret Atterdag – the “Woman King” of the Kalmar Union. In about 1398, Queen Margaret called upon her “Champion” to lead a fleet of combat vessels to the Western Isles. He had two objectives that he was expected to achieve: the first was to apprehend a band of “Vitalien Pirates” who had infested the Icelandic Isles; and the second was to establish the Capital City of a new colony that was expected to meet the needs of merchant fleets sailing between Europe and “North Norway.” Venetian maps that were prepared between 1360 and 1390 showed the Western Mainland and isles in sufficient detail to enable Prince Henry to navigate through coastal areas between Greenland and *Landamu* (or “Terra Nova”) on the East Coast.

It is possible that Prince Henry's fleet carried immigrants from Greenland directly to Norombega (or Newport) in about 1398, or his expedition might have attracted refugees who were already living with the Wampanoag or Narragansett Tribes in Rhode Island. In any case, the expedition arrived upon the scene with sufficient skills, equipment, and personnel to begin construction of a Capital City. The first task was to establish housing for settlers and sailors along a waterfront street. Evidence that this is precisely what took place has been found in 19th century photographs in the archives of the Newport Historical Society.

During the demolition of the Sueton Grant House on Thames Street in 1898, a journalist took photographs showing the Colonial chimney. It was built on top of a previously existing medieval fireplace that was built using the Norse-Scottish style of eclectic accordion arch masonry. Three similar arches in the foundation have triangular keystones of the type that has also been identified in the Old Stone Tower. In 1895, a local historian took samples of mortar from the Grant House, the Tower, and the end-wall in Benedict Arnold's house. Norman Isham (1895) reported that all three samples showed that the structures were built with the same kind of seashell lime mortar mixed with sand and gravel. Therefore, it was his assessment that all three buildings were built at about the same time by a crew of Colonial masons. (11)

Evidently, Isham failed to notice the distinctive split between the refined nature of Colonial masonry using fired bricks and carefully “dressed” stones used in the ground floor level versus the rough, eclectic style of the masonry that was present in the

foundation arch or vault. He was unaware at the time that triangular keystones were a characteristic of Norse-Scottish masonry; and they were otherwise unknown in Colonial North America. The New England scholar also noted that it was customary for builders to erect new houses right on top of old, abandoned foundations that remained following Indian raids. This is apparently what is shown by the 1895 photograph. (12)

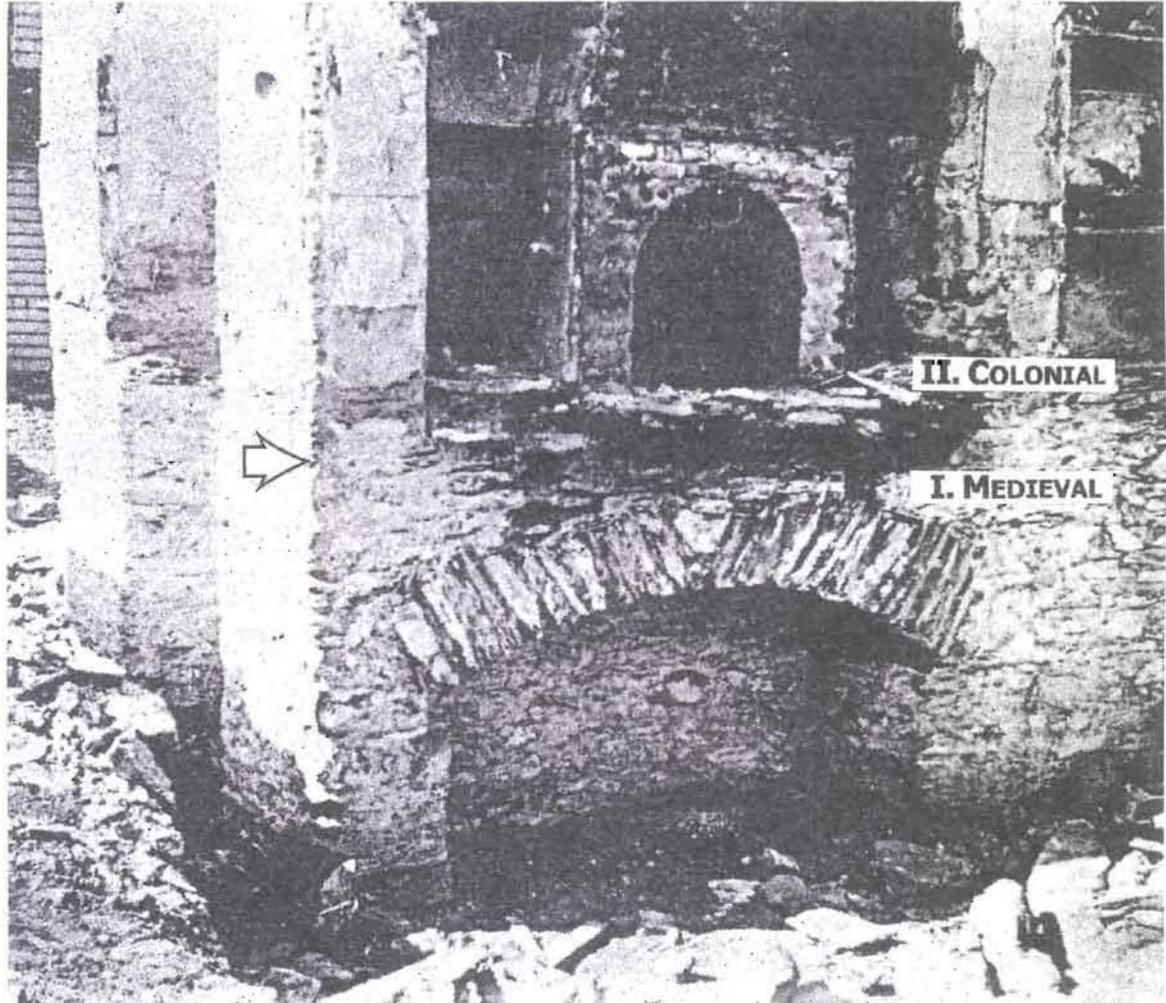


Figure 10. Grant House Chimney, courtesy Newport Historical Society, photo 1898.

An archeological assessment of this photograph indicates that the Colonial masonry was added to a previously existing medieval structure. Isham's comparison of the mortar taken from the Old Stone Tower with a sample from the foundation work of the Grant House simply confirms that the Colonial wood house was built on top of an existing medieval foundation. The bent walls and sagging floor resulted from the addition of considerable extra weight to the original foundation that was designed only to support the weight of a single-story log cabin in the 14th century.

We can reasonably conclude that the Old Stone Tower and numerous abandoned foundations along the old waterfront street constitute medieval structures that were built prior to the arrival of 17th century Colonists. They had their own masonry traditions using "dressed" building stones and standard fired-ceramic bricks. No other structure in

Colonial America is known to have been made using the eclectic, irregular stones and fanlike arches that are common in the structures of medieval England, the Scottish Isles, and Norway. Naturally, if Colonial masons had ever followed the medieval traditions of Templar masons – then many such structures would have become part of the archeological landscape of Colonial America. Some of those structures would still be standing right out in plain sight – like the Newport Tower.

But there is only one Old Stone Tower from the 14th century that bears testimony to the medieval Capital City, that was once established in Ancient America.

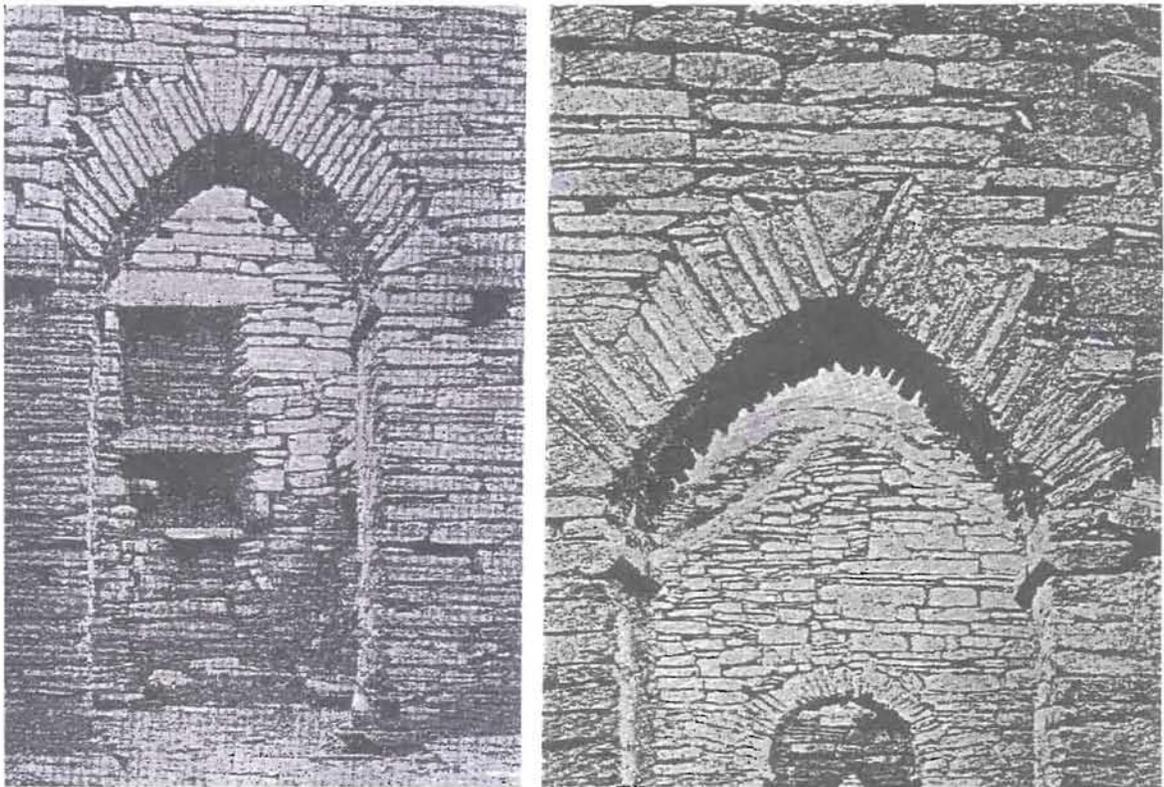


Figure 11. John Mooney photograph 1923 showing eclectic, accordion-shaped arches with triangular keystones at the Eynhallow Church, Orkney Islands, Scotland. These arches date to the 12th century.

NOTES

1. Haakon IV's declaration is recorded in the Icelandic chronicle, *Norges Konge Sagaer*, by Sturle Tordsson (c.1450), Knut Mykland, *Norges Historie*, Oslo, 1976. The Vatican endorsed this claim to lands essentially from Greenland to Florida, because Icelandic merchants set up churches in New World territories; and they collected the ten-percent "Peter's Tax" (usually "in kind") on shipped goods. A map by the Venetian cartographer, Albertin di Virga, identified the Nordic Territory as encompassing all the lands from Greenland to the Gulf of Mexico as *Norveca* (meaning essentially, "Norway Province"). Most maps identified an earlier European colony settled by King Arthur in Northeast Asia as *Albania*, or "New Albion."
2. Clements Markham, *Book of the Knowledge*, London: Hakluyt Society, 1912. For further details see Gunnar Thompson, *American Discovery*, Lulu.com, 2013, King's

- flag – 263; Welsh hens – 186; Gunnar Thompson, *Viking America*, Lulu.com, 2012, turkeys – 279, Spanish friar – 122, 153.
3. G.J. Marcus, *The Conquest of the North Atlantic*, New York: Oxford U. Press, 1981. Marcus notes that the Hansa monopolized the stockfish trade at Bergen – including all the dried fish that were imported (on Hansa ships) from Iceland (126). He adds: “the part played by stockfish in the economy of Western Europe can scarcely be exaggerated. ... In the second half of the 14th century, immense quantities of *skreid* (stockfish) were shipped from Iceland to Norway.” John Gade, *The Hanseatic Control of Norwegian Commerce During the Late Middle Ages*, Leiden: E.J. Brill, 1951. Gade notes that “Norwegian lumber” was listed in English custom’s rolls; but it was either not recorded or it was under-reported in Norway (60). These imports could easily represent the arrival of huge cargoes from “North Norway” when in fact they originated in *Markland* (or Newfoundland). Likewise an 80% jump in the value of stockfish imported by Lubeck between 1370 and 1373 probably reflects a sudden expansion of the Hansa fleet hauling dried fish from Iceland or Newfoundland.
 4. Adam of Bremen’s *Description Insularum Aquilonis* (1073) reported that Wineland was noted for its excellent wines.
 5. Frances Gibson, *The Seafarers: Pre-Columbian Voyages to America*, Philadelphia: Dorrance, 1974, 173. Taxes *in natura* (in kind) sent from “Greenland” included beaver pelts, elk skins, and furs from sable, ermine, wolverine, lynx, and black bear – all of which were obtained in the Canadian wilderness of Labrador.
 6. Sources regarding the Franciscan mapping project in North America include: Richard Hakluyt, *Divers Voyages – Touching the Discoverie of America*. London: Hakluyt Society, 1582. R. Hakluyt, *Principle Navigations, Voyages, Traffiques & Discoveries of the English Nation*. London: Hakluyt Society, c.1600. Both documents are available as recent reprints or at Google Books on the Internet. Some writers suggest that Nicholas of Lynn was not a Franciscan, but was instead a Carmelite Friar – thus he is often dismissed as being author of the *Inventio Fortunatae*. Actually, Nicholas served as a Franciscan Friar on the mapping project before joining the Carmelite Order when he assumed a professorship at Oxford. An Irish Minorite named “Hugh” has also been identified as the possible author of an itinerary dating to the same period. As numerous Franciscans were involved, it is quite likely that several versions of the New World travelogue were produced.
 7. Gunnar Thompson, *The Friar’s Map of Ancient America – 1360 AD*, Seattle: Argonauts & Radio Bookstore, 1996. See also: Thompson, *American Discovery*, Lulu.com, 2013; and Arthur Dürst, *Die Weltkarte des Albertin de Virga*, *Cartographica Helvetica*, January 1996.
 8. E.G. Taylor, Letter dated 1577 from Mercator to John Dee, *Imago Mundi*, Vol. 13, 1956, 58.
 9. Arthur P. Newton, *The Great Age of Discovery*, Freeport, NY: Books for Libraries Press, 1932, 170-72. The usual logic given for the huge cargo of White and Indian slaves that Gomez brought back from Rhode Island is that he simply wanted to raise some money to justify his voyage – which was supposedly intended to look for the “lost strait” leading to the Orient. However, English and French explorers had already scoured the East Coast, so this rationale seems superfluous. Later in the century, the English Chief Geographer was anxious to prove prior settlement by King

Arthur (at this very location) in an effort to justify England's claim in America. Thus, Gomez had a motive for kidnapping Natives and burning their dwellings. As for the Old Stone Tower up on the hill, it may have been hidden from sight by the overgrowth from a forest.

10. Henry Bull's map, along with others mentioned in this article, is in the archives of the Newport Historical Society. Plates showing all the maps are in the principal sourcebook: Antoinette F. Downing and Vincent J. Scully, *The Architectural Heritage of Newport, Rhode Island, 1640-1915*; New York: American Legacy Press, 1967.
11. Norman M. Isham in Downing & Scully (1967), 27, footnote 16.
12. Norman M. Isham and Albert F. Brown, *Early Rhode Island Houses*, Providence: Preston & Rounds, 1895; 17, 24, 30.

Additional information at: www.marcopoloinseattle.com
www.atlanticconference.org

Books are available from: *Ancient American Magazine* or www.lulu.com (Gunnar Thompson). New book about 14th century maritime commerce, Templar Knights, and New England – *Victorious*, will be available in early 2015.

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