

## L'Anse aux Meadows, Leif Eriksson's Home in Vinland

Birgitta Wallace\*

**Abstract** - The historicity of the Vinland sagas has been widely discussed for more than a century and examined from a vast number of perspectives: as literature, history, geography, oral traditions, anthropological records, and validation of archaeological phenomena, as well as personal perceptions as travel guides to Norse landings in North America. The views have varied with the disciplines. While literary historians regard most of their content as fictional, historians have suggested greater validity, but found it difficult to distinguish the kernel of reality from later constructs. Dissecting the sagas according to modern folkloristic methods applied to oral traditions elsewhere, Gísli Sigurðsson suggested that it might be possible to get a grip on the historical core. I argue in this paper that the archaeological findings at L'Anse aux Meadows shed a new light on the sagas, indicating that, like the *Íslendingabók* of Ari the Wise, they contain more facts than is generally credited them.

### Introduction

Leif Eriksson<sup>1</sup> looms large on the landscape in Greenland (Fig. 1): Leif the Lucky, *Leifr hinn heppni*, Vinland explorer and a pivotal character in Norse Greenland. As pointed out by Vilhelm Grønbech in 1931 and further developed by Bettina Sejbjerg Sommer in 2007, *heppinn* does not stand for luck in our contemporary meaning, but as “a quality inherent in the man and his lineage, a part of his personality similar to his strength, intelligence ... at once both the cause and the expression of the success, wealth, and power of a family ... Kings especially were great men of luck to the degree that they were able

to send forth their luck to assist others ... something granted from higher power ... an inherent force ... a hero was a man of luck” (Sejbjerg Sommer 2007). In the minds of the Norse, it may have been that Leif was not “lucky” because he discovered Vinland or rescued a ship-wrecked crew.<sup>2</sup> It may have been the other way around—he discovered Vinland and rescued the men because of his *happ*, his luck.<sup>3</sup>

### Leif Eriksson and the Vinland sagas

In this paper, I would like to explore the possibility of Leif's association with L'Anse aux Meadows.



Figure 1. Statue representing Leif Eriksson at Qagssiarssuk, Greenland. Photograph © Steffen Stumman Hansen.

\*7 Lady Slipper Drive, Halifax, NS, B3M 3R5 Canada; birwallace@eastlink.ca.

This is not an exercise of looking at archaeology through the lens of the Vinland sagas. On the contrary, it is looking at the Vinland sagas through the spyglass of archaeology. The importance of the archaeological data in understanding written descriptions by Europeans of Aboriginal cultures has been emphasized by Bruce Trigger:

Growing awareness of historical and archaeological data reveals that ... the archaeological data provide potentially the most comprehensive and continuous source of information about the past and hence, contrary to what has been believed, constitute the basic framework to which other data must be related (Trigger 1982:151).

It is fair to say that the discovery of L'Anse aux Meadows was inspired by the Vinland sagas<sup>4</sup> (Ingstad 1960, 1966; Ingstad and Ingstad 1986). However, the excavation strategy and site interpretation were not influenced by the sagas, either in the work by the Ingstad expedition or later Parks Canada team. Once the dating and provenience of the buildings were clear, the archaeological approach was to document the economic basis of the site, its place in the environment, social structure, length of occupation, and relationship to other cultures on the site. Only when we had a reasonably clear view of what the site was all about did the sagas come into play, with surprising results.

We do not know much about Leif Eriksson. Beyond the Vinland sagas, he appears only in one phrase in the Saga of St Olaf. In 1018, when King Olaf was advised to kill his cousin King Hrærik of the Oplands, Olaf instead commanded the Icelandic merchant Thorarinn Nefjolfsson to take him to Leif Eriksson in Greenland:

Þórarinn segir: "Dýrt er dróttins orð, eða hverja bæn viltu af mér þiggja?"

Hann segir: "Þá, at þú flytir Hrærik til Grænlands ok færir hann Leifi Eiríkssyni."

Þórarinn svarar: "Eigi hefi ek komit til Grænlands."

Konungr segir: "Farmaðr slíkr sem þú ert, þá er þér nú mál at fara til Grænlands, ef þú hefir eigi fyrr komit" (Ólason ed. 1947:96).<sup>5</sup>

Although the historicity of Leif's siblings has been questioned (Perkins 2004:47–48), Leif, like his father Erik, is widely considered to have been a historical person. I will here go a step further and present him as the possible builder of L'Anse aux Meadows. Before I get to that point, I will delve into the treacherous seas of the Vinland sagas and the question of their anchorage in reality. Much of this is a recapitulation of what I presented several years ago in an article in *Contact, Continuity, and Collapse* (Wallace 2003c), but with elaborations on certain points.

Even more than the Icelandic family sagas, the Vinland sagas are exciting narratives of discovery,

voyages to far-flung shores, and meetings with people of another ilk. The descriptions are so vivid and the progression so logical that one is easily seduced into seeing them as unadulterated truths. They are still viewed this way by most popular Viking enthusiasts bent on proving their pet theories of Vinland.

In scholarly circles, mindless acceptance of the Vinland sagas as historical documents has long ceased. Many, in fact, view them as little more than allegorical excursions to a distant paradise (Baumgartner 1993, Nansen 1911). Others have identified them as exotic tall tales of travel, perhaps with a core of historical truth, but mostly fictitious and a western parallel to *Yngvars saga víðförla* (Anderson 2000, Ólason 2001:60). These writers point to a content that features fantastic creatures from the medieval learned world such as unipeds, Scottish runners, and dreams. Bjarni Herjolfsson, Freydis and her husband Thorvard, Tyrkir, Thorhall the Hunter, Helgi, Finnbogi, and the Scottish runners Haki and Hekja are seen as fictional. The two Skræling boys who tell the Norse about their parents, Vethildr and Óvægir, and their two kings, Avaldamon and Avaldidida, are also viewed as inventions. Geraldine Barnes (2001:30, note 81) and Richard Perkins (2004:52–53) both see these names as creations patterned on Leif Eriksson's mother Þjóðhildr and the Norse word *óvæginn*, meaning unyielding or headstrong (Perkins 2004:52). They also suggest that the names of the "kings," Avaldamon and Avaldidida are based on King Valdemar and Queen Allogia of Russia (Barnes 2001:30, note 81; Perkins 2004:52). We may alternatively, however, compare it to the custom of all later Europeans in North America to render Aboriginal names into their own sound system. Atlantic Canada abounds in these: Kejimikujik, Kouchibouguac, Miramichi, Musquodoboit. Aboriginal chieftains were often viewed as "kings" by both the English and French. The boys' statement that they lived in caves or holes (pits) also has the ring of historical truth. Dwellings in the Little Passage complex (ancestors of the Innu and Beothuk) were "pit houses", structures dug into the ground (Pastore 1983:102–107). This kind of house was also used by the Dorset (McGhee 1978:64).

While many scholars, such as Geraldine Barnes (2001:xix) and Helgi Þorláksson (2001:75), recognize a historical core in the Vinland sagas, in their views, it will never be possible to sort out what is historically correct. Vinland's geographical location can never be established with certainty (Barnes 2001:xix), an opinion also expressed by Vésteinn Ólason (2001).

Gísli Sigurðsson, in his precedent-setting *The Medieval Icelandic Saga and Oral Tradition* (Sigurðsson 2004) argues that both *Grænlandinga saga* and *Eiríks saga rauða* must be looked upon as

text-based oral traditions. Only when we understand the essence of oral traditions, can we begin to sort out what may be the historical core. As long as the traditions remained oral, they were in a constant state of flux, changing from one recitation to another according to the audience and occasion. Old material was mixed with new and subject to the interests of those in control—or what was topical at that particular moment. A well-known parallel is the Roskilde ship barrier, which oral tradition associated with Queen Margrethe because her fame eclipsed earlier events to which it was actually related (Olsen and Crumlin-Pedersen 1969:9).

Gísli Sigurðsson also cites the studies by John Miles Foley (Foley 1991), which propose that oral traditions are founded on formulas and existing themes and that each episode must be seen in light of the tradition as a whole. There is no need to spell out everything because the audience is already familiar with the events and characters. Mere hints and allusions suffice. For the same reason, stories are not told from beginning to end. What Carol Clover has called “the immanent whole” (Clover 1986) already exists in the mind of the audience.

Sigurðsson has used some of his theories on the Vinland sagas. In the case of *Grœnlendinga saga* and *Eiríks saga rauða*, he finds it clear that both stem from the same oral source. Both have been adapted to fit the audience and the situation prevalent when they were locked into written texts. Gísli’s work takes us a long way in separating truth from lore. Adding insight gained from archaeology, we can go one step farther. Archaeology provides the physical world of the saga texts, the “immanent whole” of the Vinland sagas, the material world in which the sagas were produced. Leaving out the archaeological evidence from the Vinland sagas can lead writers far afield. One example is the scene in *Grœnlendinga saga* where native people approach the Norse “with loads of furs for trading purposes, without any previous visit of inspection on their part,” which leads Erik Wahlgren (1969:70) to consider it a late interpolation. Archaeology has shown that trade was extensive in pre-European North America and some of it involved fur (e.g., Spiess 1987–88:21). For instance, one trade route ran from present-day Bay of Chaleur via rivers and portage to Notre-Dame-du-Portage on the St. Lawrence River in Quebec. It is therefore not surprising that the Norse would run into such a trading party.

Understanding anthropological concepts such as migration also helps to understand the reality of the 10<sup>th</sup> and 11<sup>th</sup> centuries. Many writers coming from the literary tradition find it unacceptable that there is a fifteen-year gap between the presumed sighting of the North American coast and the first planned expedition there. They read this as typical literary symbolism,

and see Bjarni’s inaction as a foil for the determined actions of Leif (Perkins 2004:47, Wahlgren 1969:44). On the contrary, the time that elapsed before the new coasts could be explored carries the ring of historical truth. A colony is not created overnight. Housing has to be built, lands cleared for pasture, and livestock has to be increased in order to provide sufficient sustenance. At the same time, the unfamiliar local environment has to be explored and its resources investigated, and archaeological investigations are now beginning to document the various steps (Vésteinsson 1998, Vésteinsson et al. 2002). Developing further settlement and freeing up labor for new enterprises takes time, especially in a hitherto uninhabited area. As stated by David Anthony, settlement is a process, not an event (Anthony 1990).

### What do the Vinland sagas really tell us?

With the above considerations in mind, we can distinguish some of the meanings hidden in the sagas. One is the type of voyages portrayed. Everyone has taken for granted that the Vinland voyages were a colonizing venture. This is probably because the Norse settlement progression seems so logical: from Norway to the British Isles, the Faroes, Iceland, and Greenland. However, reaching Greenland, the Norse expansion had burnt out. If Niels Lynnerup’s (1998:115, 2003) figures are correct, Greenland’s initial settlement had only 400–500 inhabitants and never grew to more than 2500 (Lynnerup 2003:142). This is in sharp contrast to Iceland, where the initial settlement numbered in the thousands (Vésteinsson 1998:26–27), later growing up to at least 40,000 (Stefánsson 1993:312), possibly even 70,000 (Lynnerup 2003:142). Greenland had reached a limit where further splintering was impossible. A handful of families cannot colonize a new continent. They cannot exist in isolation. Hundreds of people are needed to start a colony (McGovern 1981); in other words, the whole Greenland colony would have had to participate. Nor was there any population pressure in Greenland at this time. There was plenty of land, and the elite, the only ones with means to organize expeditions, already had the best lands (Keller 1991), so further colonies were not likely on their agenda.

On the other hand, the resources in the western new lands would have been of considerable interest (Figs. 2 and 3). If one analyses the Vinland sagas, it is obvious that they do not describe colonization, but exploration for resources and their subsequent exploitation (*Grœnlendinga saga*, Smiley 2000:642).<sup>6</sup> The profit motivation is clearly stated in both sagas. Lumber formed the major part of the goods brought back to Greenland. Colonization may have been considered a future possibility,<sup>7</sup> but, for the moment, settlement consisted simply of a base

for the collection and transshipment of resources. This scenario also has the mark of reality. It adheres to a nearly universal model for the first stage of emigration into new areas where resources are exploited by the parent community (Anthony 1990).

Another fact indicating exploration and exploitation rather than colonization is that the sagas do not tell of farming families settling in, but of labor crews

contracted separately for each voyage. Leif Eriksson was first in charge, as his father's agent. After Erik's death, when Leif succeeded him as chieftain, the expeditions were led by other members of the family, but the control still remained with Leif. This effort is a clear core-area control over a distant resource emporium. The leaders could have merchant partners with whom they shared the profits. The crews were mostly

men who could put in days of hard labor.<sup>8</sup> A few women were along for female chores such as cooking, cleaning, and maintenance of clothes. There were also members of the leader's personal staff, such as Thorhall the Hunter, and slaves such as the German Tyrkir. Some scholars regarding the sagas from a literary point of view tend to think of these saga figures as literary concepts. Richard Perkins suggests that Thorhall is an invention by the saga author to serve as a mouthpiece for two verses which probably are not part of the original saga (Perkins 2004:51). This interpretation is entirely possible, but the men required for a venture such as the Vinland voyages would have had to possess the qualities attributed to Thorhall: a hunter, skilled in many tasks, trusted by Erik, and experienced in life in uninhabited regions (*í óbyggðum*) (*Eiríks saga rauða*, Smiley 2000:666). Halldór Hermannsson (1954) has suggested that the very appellation *fóstri*, foster father, indicates that Tyrkir is a fictional figure. Hermann Pálsson agrees with him and thinks that Tyrkir was invented simply to give credence to the grapes found (Hermann Pálsson "Vinland Revisited 31"—cited in Vésteinn Ólason 2001:53, note 27). Richard Perkins (2004:48) concurs and adds that the name Tyrkir is a literary fiction created as an allusion to southerly foreigners such as Turks. I would argue that Tyrkir was more likely a slave, as *fóstri* could also refer to a domestic slave, a slave who has worked in the house and among whose chores it was to take care of the children.<sup>9</sup> This interpretation would fit the context as well as the German origin. Slaves are likely to have been brought for the many heavy tasks associated with the construction of a new establishment.

The lack of genealogies in *Grænlandinga saga* has also been seen as a sign of invention (Barnes 2001:32–33,



Figure 2. The eastern shore of New Brunswick is characterized by long sandbars, lagoons, locally known as barrachoix, large hardwood forests, and the mighty rivers Miramichi and Restigouche. Air photograph © André Dufresne, courtesy Kouchibouguac National Park, Parks Canada Agency; all others © Rob Ferguson.



Figure 3. The riches of Vinland: New Brunswick wild grapes, and grape wines on a tree, *vínvíð*; field of *Elymus mollis*. Photographs © Kevin Leonard.

Perkins 2004:48–49). Could it not be that the genealogy of Greenland was of little interest in Iceland at the time the sagas were recorded? Genealogies serve to place individuals in their proper social context, and in Iceland, the Greenland context would have been of lesser consequence.

*Grænlandinga saga* tells that as soon as Leif's expedition landed, they constructed *búðir*, or temporary living quarters with permanent walls and temporary roofs of cloth. Later, when they decided to stay the winter, they built large houses (*Grænlandinga saga*, The Sagas of Icelanders: 639), *at búask þar um þann vetr, ok gjörðu þar hús mikil* (Reeves 1890:147).<sup>10</sup> In *Eiríks saga, rauða, búðir*,<sup>11</sup> and *skálar* are used interchangeably. No structures are mentioned for the livestock, only that they did not need to lay up hay for the winter as the grass did not wither much and the animals could graze outside. Again, this scenario is what we would expect from what we know of the Norse material world. The logical type of initial housing would have been *búðir*, the type of temporary living quarters known from Thingvellir and Hegrane (Ólafsson and Snæs-dóttir 1976). Once the camp was made more or less permanent, regular *hús* (a few lines later termed *skálar*) are the expected alternative.

### L'Anse aux Meadows site

Now let us see what L'Anse aux Meadows was all about. Many scholars have dismissed L'Anse aux Meadows as peripheral in the Vinland story (Kristjánsson 2005:39). I myself held that view for a long time. I am now contending that L'Anse aux Meadows is in fact the key to unlocking the Vinland sagas. Two factors crystallized this idea in my mind. One was my subsequent research into early French exploitation outposts in Acadia (Wallace 1999) and the nature of migration (Anthony 1990). Here we can see a complete parallel to the Norse efforts in North America. Exploitation of resources for a parent country, undertaken by a largely male work force with no intention of long-term settlement, is the principle which makes sense of the Vinland Sagas. The second signal was the identification of butternut remains in the Norse stratum at L'Anse aux Meadows. Here was the smoking gun that linked the limited environment of northern Newfoundland with a lush environment in the Gulf of St. Lawrence, where wild grapes did indeed exist. The mythical Vinland had a basis in archaeological fact.

### Nature of the site

As specified many times before (Wallace 1991, 2003b, 2003c, 2005), the function of L'Anse aux Meadows was that of a specialized winter camp, a base camp for further exploration and a gateway to resources. Our guides to the location of those resources are three butternuts or white walnuts, a

North American species, as well as a burl of butternut wood (Fig. 4). Butternut trees (Fig. 5) have never grown in Newfoundland.<sup>12</sup> The northern limit for butternuts is New Brunswick, 1000 km south of L'Anse aux Meadows (Hosie 1979:134).

The significance of the butternuts and the piece of butternut wood, a burl, was not recognized until



Figure 4. L'Anse aux Meadows butternut and butternut tree burl. Photograph © Peter Harholdt, courtesy Arctic Studies Center, National Museum of Natural History. From *Vikings: The North Atlantic Saga*, ed. By W.W. Fitzhugh and E. Ward.



Figure 5. Miramichi butternut trees; inset: butternut husks. Photographs © Rob Ferguson.

after the wood and the nuts had been treated with polyglycol acid. Radiocarbon-dating has therefore not been possible. However, all pieces were very clearly associated with the Norse stratum; the burl also had distinct cut marks done with a sharp metal knife (Gleeson 1979). We examined the possibility of a DNA study, comparing the nuts to those growing in New Brunswick today. As the nuts have lost their “meat”, such an analysis is evidently not possible.

It is noteworthy that butternuts grow in the same areas as wild grapes, and New Brunswick is in fact also the northern limit for grapes. Both species ripen at the same time in September. Thus, L’Anse aux Meadows is a base for summer excursions to a place far south with butternut trees and grapes. It fits the model of Straumfjord in the north and Hóp in the south.

The debate whether or not the Norse found wild grapes has raged for decades. Many believe that the grapes are more a medieval learned reference to a mythical paradise, the *Insula Fortunata*, than a materialistic fact (Nansen 1911[1]:345). Whether the grapes helped to lend the concept a paradisaical glimmer or not, the fact is that the occupants of L’Anse aux Meadows did visit regions where grapes grew

wild in the forest along the rivers and at the time when they were ripe and ready to be picked.

The significance of the grapes, in myth and reality, cannot be overstated. Wine was associated with wealth, power, and vernacular as well as religious leadership. Ostentatious drinking and feasting ceremonies were means for exerting power. For a person such as Leif, a potential unlimited wine supply would have been a welcome prospect in support of his chieftainship.

There are several striking aspects of L’Anse aux Meadows:

*Location.* The choice of location makes the site easy to find (Fig. 6).<sup>13</sup> The placement of the site close to a beach on wetlands at the outlet of a stream is in part a typical situation for the early farms in Iceland (Vésteinsson 1998:7–8). Yet there is a considerable difference. The prime early locations in Iceland are open areas near the estuaries of big rivers as far inland as there is wetland for pastures associated with them (Vésteinsson 1998:8). At L’Anse aux Meadows, the stream issuing into Epaves Bay is too small for navigation and Epaves Bay is not a good harbor.<sup>14</sup> The coast is one of the most exposed locations



Figure 6. The Strait of Belle Isle. Map © Google Earth.

in northern Newfoundland. The fact that the site faces the Strait and Labrador indicates that access to or surveillance of the Strait was one of the guiding factors (Fig. 6). There are plenty of sheltered coves on the east coast only a few km away, such as Straitsview, Noddy Bay, and Quirpoon to mention but three of the closest ones. These coves have much better, protected harbors.

*The economy.* The archaeological investigations included extensive searches for traces of domesticates, animal shelters, and evidence of cultivation. There were no structures of any kind for animals. Pollen analyses (Davis et al. 1988, Henningsmoen 1977, McAndrews and Davis 1978, Mott 1975) revealed no disturbances in the flora normally associated with grazing, nor any signs of cultivation or introduced plants.<sup>15</sup> The food bones were poorly preserved, but practically all that could be identified was sea mammal (seal and whale; Rick 1977). There was also a single specimen of a very large cod vertebra.

One much discussed scapula, originally identified in Norway as domestic pig (Rolf Lie in A.S. Ingstad 1977:266), or an indeterminate mammal “the size of a deer-hound or slightly larger” (H. Olsen in A.S. Ingstad 1977:267), was later identified as seal by Anne Rick (1977), Arthur Spiess (1990), and Frances Stewart (2004). Rolf Lie identified yet another specimen as domestic pig (A.S. Ingstad 1977:263). This specimen was lost in the mail between Bergen and Oslo and has therefore not been studied by other zoologists. The existence of pigs at L’Anse aux Meadows could be expected, as pigs formed a substantial share of domesticates in Greenland in the 11<sup>th</sup> century (Vésteinsson et al. 2002:110).

Given the Norse dependence on dairy products, it is almost certain that some domestic animals must have been brought to L’Anse aux Meadows, even if the main portion of the diet, like the first years in Iceland, came from wild animals. The absence of barns and byres and the undisturbed vegetation are sure signs that there could not have been many domesticates and that, if present, they did not require stabling for the winter. As a difference of only 2 °C in the mean temperature can make L’Anse aux Meadows snow-free in the winter, the latter situation was at least a possibility (Wallace 2003a:380, 2005:28). The fact that, with the exception of a pit feature in room V of hall F, the large storage rooms in halls D and F<sup>16</sup> contained no signs of food or domestic storage of the kind known from Iceland and Greenland is a sign that livestock was minimal at best.

*The layout.* The layout of the site, with three large halls, a small house, a hut, and three pit buildings and with all but one pit building primarily for accommodation, is not typical of an 11<sup>th</sup>-century farmstead. Orri Vésteinsson’s work in Iceland has, however, shown that several families seem to have banded together during the very first period of settle-

ment (Vésteinsson 1998), when cooperation must have been particularly essential. Such cooperation would have been equally important at L’Anse aux Meadows. We can in fact trace it in the artifact distribution, where the activities of one group seem to have complemented those of others (Wallace 1991:191, 2003a:176). However, even with these similarities to Iceland, the L’Anse aux Meadows site is different. The absence of animal structures is the most conspicuous aspect. Likewise, the artifacts and their distribution are not of normal household nature, but indicate specialized activities such as iron making and smithing, carpentry, and boat repair.

*Social structure.* The L’Anse aux Meadows settlement could accommodate up to 70 to 90 individuals. This is an unusually high concentration of people and a proportionally large portion of the available Greenland work force.

The L’Anse aux Meadows buildings are substantial houses, three of them halls, meant to be used year-round. The halls are large. Two are on a par with what Orri Vésteinsson has classified as middle/high status, the other as middle status (Vésteinsson 2004:74–75). The largest hall has a floor space of 160 m<sup>2</sup>, on par with Stöng; another has 103 m<sup>2</sup>, slightly bigger than Sámstaðir. The smallest hall (89 m<sup>2</sup>) is only slightly smaller than Ísleifsstaðir 2. These are the types of halls used by the elite. The largest hall is also the most complex one. It seems logical to conclude that it was built for the leader of the expedition and founder of the settlement.

The small house next to one of the large halls is of low status, the type of cottage found on the outskirts of large estates and inhabited by farm workers, subordinate people. The two pit buildings flanking halls D and F both have fireplaces. Used for accommodation or day work, their occupants would also have been workers of low status. The small, rounded hut was also a dwelling. Its occupants would have been on the bottom rung of the social ladder, possibly slaves. Thus, we are dealing with a socially stratified site containing leaders with their retinue and workers of different ranks. The Vinland sagas outline the same type of ranking.

*Size of the site.* Basing our figures on the construction of the replica houses at L’Anse aux Meadows, we estimate that it would have taken 60 men two months or 90 men one and a half months to build the original L’Anse aux Meadows settlement.<sup>17</sup> This is the better part of a summer. As outlined elsewhere (Wallace 2005:31), the construction represented a significant investment. In terms of time and labor, it is unlikely that the contemporary small Greenland work force would have repeated this effort.

*Ethnic background of the occupants.* A few years ago, lithic analyses, sponsored by the Icelandic Ministry of Education and Culture, were done by Kevin Smith (2000) on 9 pieces of jasper fire strikers

from the halls and 2 from Aboriginal features.<sup>18</sup> Both the Aboriginal pieces were Newfoundland jasper. Of the other 9, all were Icelandic except for 4 in the largest hall, which were from Greenland, supporting the idea that the leader was Greenlandic. If this is not Leif Eriksson's hall, it must have belonged to someone of his background and status.

*Date of the site.* The radiocarbon dates for the Norse phase of the site ranged from ca. A.D. 650 to 1050. However, AMS radiocarbon dates on twigs and small branches, which provide the most accurate record, date the Norse occupation to somewhere right before or after A.D. 1000 (Wallace 2003a:167, 2006:73).<sup>19</sup>

*Relationship to other cultures on the site.* Evidence obtained so far indicates that there were probably no Aboriginal people on the site during the short Norse presence, but that they had been there about a century earlier and used the site two hundred years later.<sup>20</sup>

### Hóp of the sagas

The self-sown wheat mentioned in Eiríks saga is sometimes seen as a medieval allusion to Insula

Fortunata (Keller 2001:84, Wahlgren 1969:49). This interpretation does not invalidate it as a historical observation. Early French explorers made the same discovery:

“At the head of this bay, beyond the low shore, were several high mountains ... we caught sight of the savages on the side of a lagoon and low beach. ... We rowed over to the spot, and finding there was an entrance from the sea into the lagoon ... Their country is more temperate than Spain ... There is not the smallest plot of ground bare of wood, and even on sandy soil, but is full of wild wheat, that has an ear like barley and the grain like oats ... as thick as if they had been sown and hoed” (Jacques Cartier in 1534 at the head of Chaleur Bay in New Brunswick— Cook 1993:22).

Eastern New Brunswick is known for long, protective sandbars along its entire coast and the warm sheltered lagoons and rivers behind them. The butternuts and grapes grow along the Miramichi River and Restigouche River in Chaleur Bay (Fig. 7). This is a rich area, with large hardwood forests, inviting meadows, grapes, and walnuts, more like Continental Europe and very different from



Figure 7. The Gulf of St. Lawrence. Map © Google Earth.



northern Newfoundland, Greenland, and Iceland. One could certainly see it as Hóp.

Eastern New Brunswick also harbored the densest populations of native people in Atlantic Canada, the ancestors of today's Mi'kmaq. Estimates of the total number of Mi'kmaq in protohistorical times lie around 6000 to 15,000 (Martijn 2005:49), covering also all of Nova Scotia, Prince Edward Island, and other Gulf islands. Jacques Cartier's encounter with them parallels the Norse experience:

"... we caught sight of two fleets of savage canoes that were crossing from one side to the other [of Chaleur Bay], which numbered in all some forty or fifty canoes. Upon one of the fleets reaching this point, there sprang out and landed a large number of people, who set up a great clamour and made frequent sign to us to come ashore, holding up to us some skins on sticks ... they had come to barter with us; and held up some skins of small value, with which they clothe themselves. ... They bartered all they had to such an extent that all went back naked without anything on them; and they made signs to us that they would return on the morrow with more skins." ( Jacques Cartier, 1534 in Chaleur Bay—Cook 1993:20–21).

Few have disputed that the description of Skrälings travelling in *húðkeipar*, skin canoes, is based on actual observation. From archaeology and ethnology, we know that canoes were rarely used south of central Maine, and not at all south of Boston, where people used boats hollowed out of trees. Thus, this observation was most likely made north of central Maine. The Mi'kmaq did use canoes made from moose or deer skin (Wallis and Wallis 1955:50–51, Whitehead 1991:20) and are hence not unlikely contenders for having been the models for the Skrälings at Hóp.

### Conclusion

On the basis of the archaeological evidence at L'Anse aux Meadows, I suggest that the structure of the L'Anse aux Meadows site parallels the type of site represented by Straumfjord of *Eiríks saga rauða*. The organization, economy, size, buildings, and date give greater historical validity to the Vinland sagas than has hitherto been recognized. The location of L'Anse aux Meadows indicates that the Gulf of St. Lawrence through the Strait of Belle Isle was of special interest to its occupants. The archaeological evidence is unequivocal that visits did take place to more southerly regions where grapes grew wild. This is a case where archaeology can be used to test the sagas. The Vinland sagas may contain a greater grain of reality than we thought—modern data have shown that the basic facts in Ari the Wise's *Íslendingabók* were correct (Friðriksson and Vésteinsson 2003:142). It does not mean that

we can take every situation depicted in the sagas at face value. They show all the signs of the flexibility marking transmission of oral history, sprinkled with later learned concepts. Did Leif Eriksson sleep at L'Anse aux Meadows? If Leif Eriksson was a historical person, he probably did.

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### Endnotes

<sup>1</sup>Ólafur Halldórsson (1980) suggests that Leif was originally named Þorleifr after his great-grandfather. According to Ólafur, this earlier Þorleifr, with his father Þorvaldr, left Norway for Iceland and settled at Drangar, later moving to Breiðafjörður. Erik the Red must therefore have been born in Iceland. Ólafur bases his conclusion on Ari fróði's Íslendingabók.

<sup>2</sup>Leif's byname is usually associated with one of these events; Ólafur Halldórsson (1986:245) has suggested that it stemmed from the fact that Gudrid was among the shipwrecked people rescued by Leif.

<sup>3</sup>*Grænlandinga saga* states that "After this he was called Leif the Lucky," but it is not clear if this refers to finding Vinland or rescuing a ship-wrecked crew from a reef. In Eiríks saga, the appellative follows Leif's supposed Christianization of Greenland.

<sup>4</sup>The Vinland sagas is here meant to comprise what is commonly referred to as The Greenlanders' Saga (*Grænlandinga saga* in *Flateyjarbók*, GKS 1005 fol.) and Erik the Red's Saga (*Skálholtsbók*, AM 557 4to, and *Hauksbók*, AM 544 4to). The English translations cited are those by Keneva Kunz in the 2001 Penguin edition of *The Sagas of Icelanders*.

<sup>5</sup>Thorarinn says, "Valuable are the Ruler's words, but what do you want to ask from me?" He [the King] says, "That you take Hrærik to Greenland and deliver him to Leif Eriksson." Thorarinn responds, "I have never been to Greenland." The King says, "A seafarer like you, you now have your opportunity to go to Greenland if you have never been there before" (author's translation).

<sup>6</sup>“Thorvald felt they had not explored enough of the land.” (*Grænlandinga saga*, The Sagas of Icelanders, Smiley 2000:642); “... the trip seemed to bring men both wealth and renown...journey to Vinland...and have a half-share of any profits from it” (*Grænlandinga saga*, The Sagas of Icelanders, Smiley 2000:648; “They took few trading goods, but all the more weapons and provisions” (*Eiríks saga rauða*, The Sagas of Icelanders, Smiley 2000:662); “They had brought all sorts of livestock and explored the land and its resources ... They paid little attention to things other than exploring the land” (*Eiríks saga rauða*, Smiley 2000:667). Bringing livestock does not in itself indicate colonization. Livestock would have been an essential share of the provisions needed to feed sixty or more people for two to three years.

<sup>7</sup>Many have pointed to the words uttered by Thorvald in *Grænlandinga saga*: “This is an attractive spot, and here I would like to build my farm” (*Grænlandinga saga*, Smiley 2000:642)—the original word being *bær*, ... *bæ minn reisa* (*Flateyjarbók* col. 283b, *Grænlandinga saga* 10, Reeves 1890:149) having the connotation of permanent farm buildings. However, this does not suggest abandonment of a Greenland property, only an addition. By the same token the statement in *Grænlandinga saga* (Smiley 2000:646) that “They took all sorts of livestock with them, for they intended to settle in the country if they could (*byggja landit, ef þeir mætti þat*; Reeves 1890:153, emphasis added) does not necessarily mean anything more than they intended to add to their holdings in Iceland.

<sup>8</sup>“He selected his companions for their strength and size” (*Grænlandinga saga*, Smiley 2000:643).

<sup>9</sup>Stefan Brink (2008:53) says that *fóstri* was a slave brought up in the household. It could also be a slave who brought up the household children. (Cf. Sveinsson 1954:29–31 and Robert Cook’s note 2001:313).

<sup>10</sup>The name *Leifsbúðir* continued in use. The logical sequence would be demolition of the *búðir* and reuse of the sod in the walls of the halls.

<sup>11</sup>*Skálholtsbók* has the word *bygðir* (Jansson 1945:70, 341).

<sup>12</sup>The suggestion that the limit for butternut trees stretched farther north during the warmer temperatures of the 11<sup>th</sup> century (Perkins 2004:59) is probably unrealistic. The trees grow among stands of mixed, primarily deciduous forests, in the southeastern portion of the Great Lakes-St. Lawrence Forest Region and the western section of the Acadian Forest Region (Hosie 1979:134). A greater fluctuation than 2° C would be required for a significant change in these regions.

<sup>13</sup>If one follows the Labrador coast from the north, Belle Isle comes into vision as one enters the mouth of the Strait. Then, as the Strait narrows, land appears on the port side. If one crosses the Strait there, one ends up in the vicinity of L’Anse aux Meadows.

<sup>14</sup>The bay is shallow, today on the average of 1–2 m. It would have been deeper a millennium ago due to a subsequent land rise of about 1 to 1.5 m (Grant 1975). Consequently Black Duck Brook would have been somewhat deeper and wider, the entire brook basin possibly occasionally flooding.

<sup>15</sup>An analysis of microfauna has not yet been undertaken, but stratigraphic soil samples are available and an analysis is forthcoming.

<sup>16</sup>Room I in hall D, rooms V and VII in hall F. They were interpreted as storage rooms because, although enclosed by walls, they contained no features or organic deposits.

<sup>17</sup>The estimate is based on the time spent by 12 local fishermen cutting the sod, felling and shaping the timber, the amount of materials used, and the time spent on the construction. While the manual skill and strength of these men probably came close to that of the Norse, they lacked previous experience of this type of construction, but this was offset by the modern tools used, e.g., trucks for transportation.

<sup>18</sup>Another piece was found a few meters west of hall F in 2008 (Kristensen 2008), but it has not yet been analyzed.

<sup>19</sup>The stratigraphy shows clearly that the Norse phase was one single, short-lived occupation (Wallace 2003c:230).

<sup>20</sup>Before the Norse, the site was intermittently occupied by the Maritime Archaic, Groswater Dorset Palaeoeskimo, and “Recent Indians”; subsequently by Little Passage (Wallace 2006:85–90).