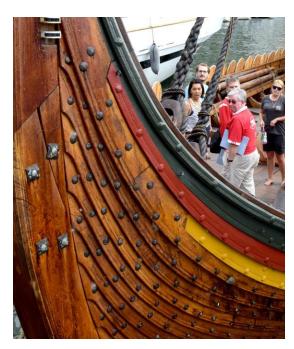
Viking Ship Draken Harald Harfagre Comes to New York City!

By Gary Lehman

The Scuba Sports Club had the exciting opportunity to go aboard the Viking ship *Draken Harald Harfagre* on September 18, 2016 in lower Manhattan, and attend a presentation by the owner, captain and crew at the Explorer's Club the following day describing the ship's trans-Atlantic voyage.

The Adventure

This inspiring project began in 2008 with a dream by Norwegian entrepreneur Sigurd Aase – to build a Viking longship of the kind sailed by Scandinavian Vikings and explorer Leif Erikson 1,000 years ago - using traditional methods and materials - and sail it to the archaeologically-confirmed Viking landing spot L'Anse Aux Meadows (located at the



Visitors to Viking Ship Draken Harald Harfagre at North Cove Marina were inspired by the intrepid and historic journey of this beautiful Viking longship

northernmost tip of the island of Newfoundland in the Canadian province of Newfoundland and Labrador). The ship was to be named *Draken Harald Harfagre* – named "Dragon" after Harald Harfagre, who was the first king of Norway and who unified Norway into one kingdom in the years circa 870-930.

Imagine a Viking ship - true to the original - sailing across the North Atlantic along the same route taken 1,000 years earlier by the Vikings, whose landing on North America predated Christopher Columbus by over 400 years! Aase's inspiration in his own words:

"The aim of the Draken Harald Harfagre project is to explore the world and embrace the Viking spirit – to look beyond the horizon and seek adventure and to inspire people to take on challenges." There were daunting challenges to this endeavor. For one thing, there were no naval architectural plans for such a vessel. As a guideline, there were smaller, ceremonial Viking ships uncovered at Norwegian burial sites, and remains of cargo ships. However, these ships were not intended for blue water (oceanic) use, rather only coastal use. Viking-era ships uncovered at Roskilde Fjord in Denmark in the 1960's also provided further guidelines for ship construction techniques, as well as examples of artwork carved into the vessels. There were also circumstantial indications of Viking longships' appearance, gleaned from 1,000-year old paintings, the stories recounted in the Norse sagas (narrative in poem or prose in an archaic Norse language, depicting legends, historical events and mythology, written the 1200's and 1300's) and even some extant provisioning logs.



Viking ship Draken Harald Harfagre, North Cove Marina NYC

The Challenge Another big challenge was figuring out how to sail such a vessel. Scandinavians are expert seamen - but modern sailing ships have distinctly different hull and sail configurations, and the sailing characteristics of these Viking longships with a single square sail would be profoundly different than modern yachts, barques, or other sailing ships. But what this

venture had in its favor was that the world's leading tall ship sailors are an elite and close community - word quickly spread about this venture, and all the very best tall ship sailors from all over the world vied for an opportunity to crew aboard this ship on this historic journey.

To get the project moving forward, Sigurd Aase contacted the top three traditional shipbuilders in Norway with the proposal. Intrigued, they collaborated and put forth plans to proceed, creating a build plan (the ship was to be built with only traditional materials, and by hand) and performance modeling plan. The best Norwegian woods were identified for use for different ship components. Three small ships (each progressively bigger and scaled up) were built to gain crew and build experience with

construction methods and sailing characteristics. A supercomputer in the USA was also used to perform the structural dynamics and finite element modeling for ship performance. The ship was built in the town of Haugesund in western Norway, which is Sigurd Aase's home town. On March 2010 construction of the largest Viking ship to sail in modern times began, bringing together traditional shipbuilders, craftsmen, historians, artisans, and engineers working with wood, tar, hemp, iron nails, and silk for the sail.



And what about a captain? Given the requirement for the highest standard of seamanship, the unknowns and the challenging North Atlantic sea conditions, only a top-tier captain of exceptional leadership and skill would have the capability to bring together the team to accomplish this momentous voyage. Captain Bjorn Ahlander with many years of tall ships sailing experience was selected for this challenge, and be brought with him several top sailors and seamen/seawomen who had crewed under him on prior ships. Together they formed the core team of sailors of about 17 sailors, and recruited another 17 from among the world's best sailors.

Historical Voyage Takes Shape

With the completion of the ship in 2012, sea trials on *Draken* were conducted over two years in coastal areas. One of the most challenging was successfully completed in March 2014 over blue water to the town of Largs on the west coast Scotland (at town which had been raided by the Vikings a thousand years ago; fortunately, there was no residual ill will for past indiscretions), and then on to Liverpool, England.

And on April 26, 2016 the historic trans-Atlantic voyage began, with the month of May being the only month of the year with favorable prevailing easterly winds. The ship made first landfall in Scotland, proceeding to the Faroe Islands, then in succession Iceland, Greenland, and completing the trans-Atlantic crossing on June 1at St. Antony in Newfoundland. Historians broadly agree that the Vikings ventured well into the interior of what is today Canada and the US Great Lakes region. There is even speculation that they extended their journey as far south as the Gulf of Mexico (it is hoped that at some point archaeological evidence and even organic remains with DNA potential might be discovered to validate the theory). *Draken Harald Harfagre* ventured forth following the route of her predecessors and sailed up the St. Lawrence Seaway to Quebec, Toronto, Ohio, Michigan, Chicago, Greenbay, Duluth, and back out, arriving in NYC on September 15. She will depart and overwinter in Mystic Seaport, Connecticut. The plan is to sail her back next year.

Haze Gray and Underway

The Scuba Sports Club/Dive News Network had the opportunity while aboard the docked ship and at the Explorers Club to mingle with crew members, the voyage photographer, and the captain. Their experiences were captivating and greatly fill in the details of this historic voyage!

Many questions were posed by visitors to the ship and at the Explorers Club about the voyage details There was no 'below deck', just a tent where the off-duty crew slept in their sleeping bags. There was a four-hour watch system in effect, around the clock. There was a *small* cubbyhole for biology breaks. There was an engine aboard, rarely used and only when crew safety considerations dictated.

Crew safety was paramount to the captain for this expedition. A chase boat was employed for emergencies. Sailors aboard *Draken* wore high-visibility survival suits which would have kept them safe until rescue by the chase boat in the event of man overboard. Stormy weather was carefully tracked and if possible avoided by waiting out the storm system in port. However, sometimes this was not possible, and the African proverb "Calm seas do not make a good sailor" proved true via the seamanship and fortitude of crew and captain. Navigation was in part accomplished by a 'sunstone' – a mineral stone which polarizes light revealing the position of the sun on cloudy days, celestial navigation at night, clouds, waves, wildlife...and intuition. At up to 10-12 knots at times! Traditional methods were used, but cross-checked by the latest gear installed aboard. Icebergs? Yes, those were encountered frequently, especially on the latter part of the journey. A glancing blow would not have been fatal the ship but conceivable a head of collision at speed might have been. However, wood does not become brittle like steel or fiberglass, and is better able to withstand the shock of collision with an iceberg. Nevertheless (not wanting to test any good Norwegian wood resiliency characteristics) during the passage through icy sections, the crew watch would be doubled and speed reduced to avoid a collision. And what about food? Master chef Jan Gullbrandsson's fare was universally appreciated for its excellence, especially under such adverse conditions – two hot meals a day and hearty porridge for breakfast!

TSSC/DNN asked crew and captain what the 'biggest surprise' was. The answer was unanimous... the unrelenting cold (understandable given the perpetual exposure to the wind, sea spray, and rain). The captain at first indicated that there *were* no surprises; that the shakedown trials had effectively surfaced issues and procedures for correction. Then, Captain Ahlander reflected further, indicating one surprise - the value of a good carpenter- *because so many things became broken during the arduous voyage.* Hemp rope frayed under stress, necessitating ad hoc repairs and circumventions.

Draken Harald Harfagre has an international crew of 34 sailors, about half of which were core professional staff, and the other half were rotating volunteer deckhands. The international and mixed-gender crew reflected the multinational adventures of the Vikings and their egalitarian society. The ship is 114', 27' beam, weighing eighty tons, and with a 3,200 square foot sail.







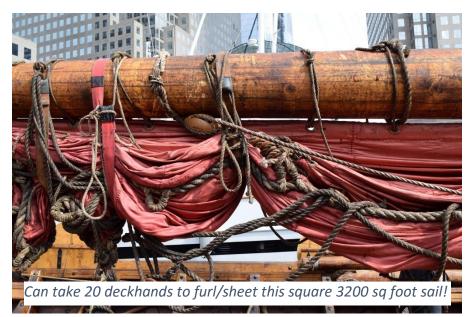
Norse god Odin dispatched two ravens to reconnoiter the area around his ship to report on local conditions and enemy ships - but Viking Ship Draken Harald Harfagre's two ravens take flight in spirit only!





We also asked captain and crew about their readings and personal preparation for their "Viking" (which roughly translates to 'journey'). Of course the Norse sagas were part of the preparation, but also the journals of Sir Francis Chichester aboard *Gypsy Moth*, predecessor Norwegian explorers Roald Amundsen who explored polar regions aboard the ship *Fram*, and Thor Heyerdahl who conducted the *Kon-Tiki* expedition in 1947, sailing 8,000 km across the Pacific in a small hand-built raft built from traditional materials from South America to the Tuamotu Islands, proving the feasibility of westbound migration across the Pacific. And some crew members studied the logs and journals of Ernest Shackleton in the Antarctic on Endurance. Shackleton observed that a fine crew is as important as a stalwart ship in expeditionary ventures; an observation heartily endorsed by all Draken crew members who took inspiration from Shackleton!

The Scuba Sports Club/Dive News Network proclaims a hearty **Skål !!** to the intrepid sailors of Draken Harald Harfagre, congratulate all who planned and crafted this historic voyage, thank them for energizing us all to pursue our dreams and undertake challenges towards our personal best, and earnestly wish fair winds and following seas to all future adventures for owner, captain and crew!



So who were these Vikings a thousand years ago? Popular conception has maintained through the ages that Vikings were rapacious marauders who raided coastal towns, pillaging, murdering and carrying off everything not nailed down and striking terror in the hearts of nearby coastal communities away from their Scandinavian homelands. This was only in part true (rule of law had not "yet" taken hold completely in human history, and the Vikings were no more or less brutal than terrestrial raiders). But this violent behavior in fact is only part of the story. 'Vikings' were those who ventured out to sea to find new land, but Norsemen (those who lived in Scandinavia) were also fishermen, artisans, craftsmen, farmers, and poets as well as seafarers. The Vikings ranged far and wide from their Scandinavian coastal towns engaged in trade all through the British Isles, across the Atlantic as we have seen (500 years before Columbus), throughout the Baltic and into the Mediterranean, Near East and even Africa. Cultural traces and artifacts have been found in all these regions. The sea lanes plied by the Vikings presaged worldwide British maritime dominance such that "the Sun never set on the British Empire". Women's egalitarian status in Viking times is reflected in ship's company: 50% of Draken's crew on average were women sailors true to Viking culture.