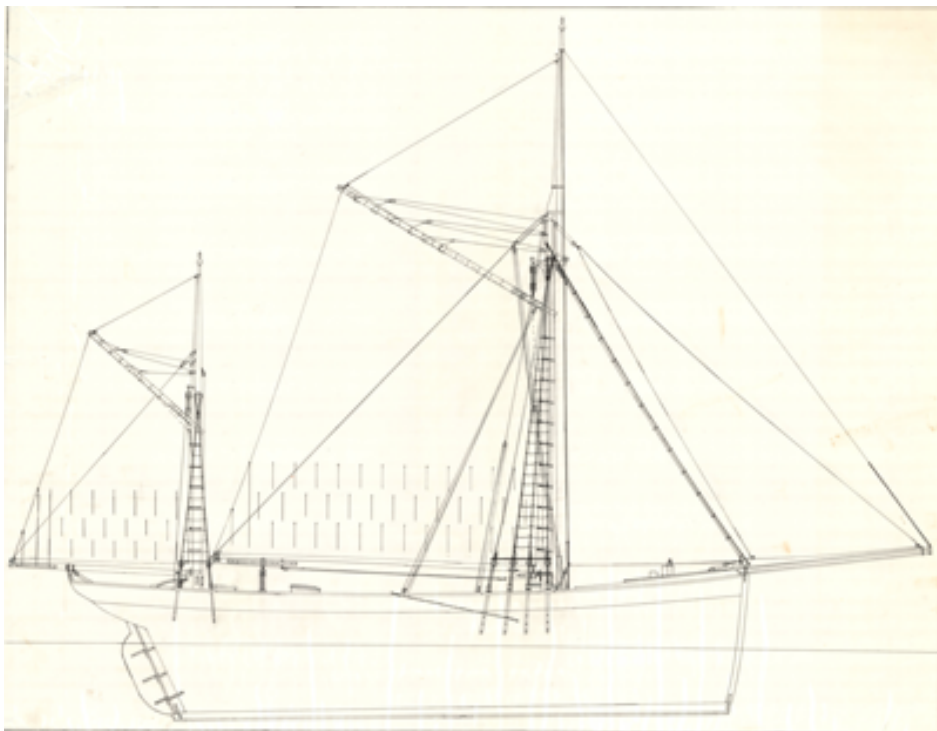


The Historic Ship Sigurfari

Written Scheme of Investigation



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Written Scheme of Investigation for the Historic Ship Sigurfari

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Cover photograph: Drawing of Sigurfari by shipwright Jóhann Ársælsson

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Vessel description

Sigurfari is an 85,1 ton ketch-rigged smack built in 1885 at the shipyard John Wray & Son in Burton upon Stather in the UK. Sigurfari has the characteristics of a 19th Century sailing trawlers, i.e. straight bowsprit and keel, square stern, rounded hull and a deep heel. Sigurfari is ketch rigged, distinguished by a taller mainmast and a lower after mast.¹

Originally named Bacchante, she is the last known surviving ship built in Burton upon Stather.² The ship was fished from Hull until 1897 when she was sold to Iceland. In Iceland Sigurfari was used for trolling. The ship was considered a good sea vessel, prosperous and one of the most successful smack in the area of Faxaflói.³

In 1919 Sigurfari was sold to the Faroe Islands where she spent most of her working life. Sigurfari was returned to Iceland in 1974 as an endeavour to preserve a part of Iceland's maritime history. Sigurfari stands on dry land at the Akranes Folk Museum. She is the only decked vessel preserved in Iceland. In 1985 the ship was opened to the public. Now, access to the ship has been restricted due to security reasons.

Previous work

Sigurfari was a working vessel for 85 years. Throughout her time she has undergone extensive refurbishment and restoration. When the ship was purchased from the Faroe Islands in 1970 she had been fitted with a motor and a steering house. However, the hull retained its original shape. Work began in 1979 to restore the ship to its original state for exhibition. The work was quite extensive as Sigurfari was in a poor condition at the time of arrival at the Akranes Folk Museum. The deck, after mast, main rail and stern were renewed. A mainmast from Sigurfari's sister ship, Dasher built in 1883 at the same shipyard, was obtained and fitted on Sigurfari.⁴ This restoration work carried out means that much of the original timbers of Sigurfari have been lost. During the restoration shipwright Jóhann Ársælsson made plans of the ship. They include a deck plan, a long section and the rigging.

Since the restoration only basic maintenance has been performed except for some repairs on deck that took place in 2002. That same year the rigging was renewed. Sigurfari's condition has since deteriorated and an assessment made by the Danish shipwright, Morten Müller, in 2015 on behalf of the National Museum was that the ship was in a poor state. The results are that the masts, boom and rigging are in the best condition. There is a reason to believe that only a small proportion of the original timbers are in a usable condition. However, his assessment is that the bottom timbers could possibly be salvaged.⁵

¹ Guðmundsson 1977, 15; Haraldsson 1985, 5; March 1970, 57-61.

² Day 2012

³ Haraldsson 1985, 13.

⁴ Day 2012.

⁵ Müller 2015.

Reasons for the project

In 2002 it was clear that the ship was in a poor condition and something needed to be done if the ship was to be preserved. Many possibilities have been explored, ranging from a full reconstruction fit for sailing to the construction of a boathouse where repairs of the ship would form a “live” exhibition. These ambitious plans were never realised, mainly due to lack of funding.

In 2015 the mayor of Akranes sought consultation from the National Museum. As the financing of earlier plans have all been unsuccessful the director of the National Museum recommended that a project manager would be hired to explore the possible approaches and make recommendations for the future of the ship. One of the outcomes of that project is the creation of a vessel record through documentation of the ship.

Research objectives

The aim of the project is to make a vessel record for Sigurfari. This includes a survey of all documentary and other tangible evidence of the vessel’s history, oral histories relating to the vessel and records from a physical survey.⁶ The research objectives are chosen within this frame. Furthermore, they are based on the four key elements of significance identified in the Statement of Significance for the ship:

- The ship as a representative of changes in the fishing industry in the 19th Century
- Structure of the ship and hull shape
- Rarity of the ship
- Aesthetic and emotional value of the ship.

The objectives of the project refer to these key elements and aim to preserve the characteristics of the ship they represent. They are based on the documentation already available, the advice of shipwrights and specialists in the field of historic ship preservation and the publication Recording Historical Vessels by National Historic Ships.⁷

1. Surveying of documentary evidence

As stated in the key elements of significance Sigurfari is a representative of a certain type of fishing vessel developed in the UK as response to the introduction of trawling in the 19th Century. Sigurfari’s history is typical for the lifespan of the British sailing trawlers. At the end of the 19th Century the majority of the sailing trawlers were sold abroad, most commonly to the Nordic Countries, where they were used for trolling. The history of these vessels and the impact they had on the fishing industry in the United Kingdom and the Nordic Countries can be explored through the case study of Sigurfari. All documentary and other tangible sources on the ship shall be collected, archived and made available for the production of an exhibition on the sailing trawlers and Sigurfari.

⁶ Kentley et al. 2007, 10.

⁷ Kentley et al. 2007.

2. Recording the oral history of the ship

Oral testimony of the ship is to be collected and recorded through interviews. The intrinsic content of oral histories is well suited to capture the emotional value of the ship to the local population and add to the body of knowledge on the ship's history. The material shall also be made available for the production of an exhibition on the sailing trawlers and Sigurfari.

3. Collecting photographs of the ship

To preserve the aesthetic element and situational context of the ship a photographic collection will be made. The photographs shall be from all eras of the ship and come from the local population as well as other available sources. Additionally, the aim of this effort is to capture the emotional value of the ship in the eyes of the local population as well as reinforce it and promote.

4. Recording the overall impression of the ship.

Aesthetics and emotional value is stated as one of the key elements of significance of Sigurfari. Therefore the overall impression of the ship shall be recorded before deconstruction. This includes:

- The shape of the hull
- Masts and rigging
- The deck

5. Recording the structure of the ship

The structure of the ship, hull shape and its rarity are identified as key elements of significance. Sigurfari is an example of a type of ship previously common. However, each shipyard had it's own structural variation. Sigurfari is the last surviving vessel from the shipyard John Wray & Son in Burton upon Staher. Therefore, it is important to keep a record of the ship's structure. This shall be done through a full set of construction plans.

Methodology

Desk based survey

Survey of documentary evidence

All documentary and other tangible sources on the ship shall be collected, archived and made available for the production of an exhibition. The documentary should include both Icelandic and foreign sources and refer to all eras for the ship's history, including its construction and operating time in the UK, its history in Iceland and the Faroe Islands as well as its time as a museum vessel at the Akranes Folk Museum.

Collection of oral testimony

Oral testimony shall be collected through interviews. The topic shall cover as much of the ship's life span as possible. The topics shall include:

- Sigufari's time at sea
- Sigurfari's arrival at the Akranes Folk Museum
- The reconstruction of the ship
- Value to the local community
- Childhood memories regarding the ship.

The interviews shall be taped and a short summary written for each interview.

Collection of photographs

Photographs shall be collected through the documentary research. They shall include older photos as well as modern ones. In addition there should be a call to collect photos from the public. It should be noted that it is not necessary that the ship be in foreground of the photograph. A collection campaign should be launched on social media, for instance Instagram, using hash tags (#), encouraging people to submit "selfies" or other photographs showing Sigurfari.

Physical survey

Photographic survey

A photographic survey of the ship should be made. The aim of the survey is to complement other recording data and help preserve the context of each element. It should capture the overall impression of the ship and specific details regarding the construction and craftsmanship of the vessel.

The photographic survey should follow a logical route around the vessel, for example, from bow to stern on the starboard side, and stern to bow on the port side externally. The same pattern should be followed below deck. Each photograph must include a common scale, such as a surveyor's ranging pole.

Written descriptions

A written description should accompany the photographic survey. It should follow the sequence of the photographic survey and explain what can be seen in each view as well as establishing the location and orientation of the images. The written record should also include information on:

- Features of the frame and hull specified in the second research objective
- Evidence of repairs

- Evidence of changes to the vessel's structure or general arrangements
- Evidence of damage
- Identification of materials
- Descriptions of tool marks

The written description should only deal with the vessel in its current form, not attempt to reconstruct previous features. However, where there is evidence of these (for example markings on decks), this should be recorded.

Photogrammetry

The overall impression of the ship will be recorded using photogrammetry to make a 3D model of the exterior of the ship. From the 3D model construction plans of the ship will be made. Photogrammetry will also be used to record the interior of the ship, especially the cabin.

Photogrammetry is well suited to make a permanent record of the ship and is increasingly being used by shipwrights when doing reconstruction work. The method is fast and requires little equipment. The accuracy of the models has increased in the past years and is adequate for making plans.

Hand drawings

Elements that can't be recorded using photogrammetry should be drawn by hand. These include joints, fastenings and bolting. These drawing should then be digitized using a CAD software.

A note on the construction plans

Shipwright Jóhann Ársælsson made plans of the ship in 1981. These include a long section, deck plan and rigging. However, they do not include a lines plan or cross sections. A lines plan is the most useful document for reconstructing the hull shape. Although deteriorated, the shape of Sigurfari's hull is original. As one of it's characteristics, it is important that this is thoroughly documented through a lines plan, including a plan view, profile view, half-breath plan and cross sections. In addition to a full set of construction plans the record should include notes on the following features of the frame and hull.

Frame:

- Type of wood
- Dimensions
- Spacing

Hull:

- Number of planks
- Type of wood
- Orientation of the planking

Attention should also be paid to the joints and bolting of the ship. The record should reflect the types and number of fastenings, position and dimensions. Where possible notes should be made on the originality of the material. With regard to further details of the documentation a shipwright should be consulted.

The interior of the ship is not original. During the restoration in 1979-1985 work below deck was not completed. The interior therefore does not represent

the original fittings of the ship. However, the bunks in the cabin have a sentimental value for the local population. It is therefore suggested that the interior of the cabin will be recorded prior to deconstruction.

Results

Records

The photogrammetry record will be processed into a digital 3D model. From the model plans of the ship will be produced. Hand drawn plans will be digitised using CAD software. All text files should be saved as using RTF (Rich Text format). Photographs and scans should be saved as either TIFF or RAW files and plans as DWG.

Archive deposition

The records will be deposited at Héraðsskjalasafn Akraness, the local archives. The records should be archived following the instructions of Héraðsskjalasafn Akraness. Copies will be stored at the National Museum Archives.

Bibliography

Day, K. 2012. *'Sigurfari'. Burton's Last Ship*. Burton upon Stather Heritage Group. Viewed on June 30th 2016. Website:
<http://burtonstatherheritage.org/shipping/164>

Guðmundsson, G. 1977. *Skútuöldin. Fjórða bindi*. Önnur útgáfa. Örn og Örlygur, Reykjavík.

Haraldsson, G. 1985. *Kúttur Sigurfari. Sjómannadagsblað Akraness 1985*. Sigurfarasjóður og Byggðasafnið í Görðum, Akranes.

Kentley, E., Stephens, S. og Heighton, M. 2007. *Understanding Historic Vessels. Volume 1. Recording Historic Vessels*. National Historic Ships. Viewed on May 20th 2016. Website:
<http://www.nationalhistoricships.org.uk/pages/advisory-papers.html>.

Müller, M. 2015. *"Sigurfari". Rapport af skibstømrer Morten Müller. 1. júní 2015*.

Appendix I – Statement of Significance

Sigurfari is an 85,1 ton ketch-rigged fishing vessel built in the United Kingdom in 1885. Originally named Bacchante, she was fished out of Hull until 1897. That year the ship was sold to Iceland and three years later she was renamed Sigurfari. Sigurfari was used for trolling out of Iceland until 1919 when she was sold to the Faroe Islands. In 1974 Sigurfari was purchased for preservation at the Akranes Folk Museum.⁸

The ship is the first thing that meets the eye when arriving at the museum and it has even been described as iconic. Furthermore, the ship has an emotional value for the local population. This pertains to the history of Sigurfari coming to Akranes and the ship's setting as part of the museum's collection. Reverend Jón M. Guðjónsson, a pioneer in the museum's establishment, along with the local Kiwanis club Þyrill, lead the efforts of bringing Sigurfari back to Iceland hoping to preserve Iceland's maritime heritage. In the years of 1979-1985 extensive restoration of Sigurfari took place and in her centennial year the ship was opened for exhibition. Much of the restoration work was done by volunteers or for local donations.

Sigurfari is a typical example of the British trawlers built in the second half of the 19th Century. The ship's history represents the revolutionary changes taking place in the fishing industry at the time in Britain. As intensive trawling emerged in the 19th Century the design of the ships changed accordingly. Built for speed and strength, the number of trawlers increased rapidly. The trawlers revolutionised fishing in England, especially along the southeast coast. However, the time of the trawlers was short. It culminated in the 1880's but with the emergence of steam powered ships their popularity dwindled quickly and many were sold abroad.⁹

The fishing industry in Iceland also underwent changes in the 19th Century. Large fishing companies were established and the arrival of the decked vessels greatly improved the fleet. The Icelandic companies practiced line fishing instead of trawling, the latter method being controversial at the time in Iceland. 1897 is considered a turning point as that year Icelanders started buying fishing smacks from the United Kingdom at a large scale.¹⁰

Even though fishing smacks were once common, Sigurfari is the last one preserved in Iceland. She is also the only surviving ship from the shipyard John Wray & Son in Burton upon Stather.¹¹ Little is known about the fate of most of the ships that fished out of Iceland. One, however, has been preserved in the United Kingdom. The City of Edinboro' was built in 1894 in Hull by the shipwright William McCann. She was sold to Iceland the same year as Sigurfari and renamed Fríða. She kept that name until she was sold to the Faroe Islands. The ship is now in the care of the Excelsior Trust in the United Kingdom. Restoration commenced in 2000 but it has been suspended until funding has been secured.¹²

⁸ Haraldsson 1985, 6-13.

⁹ Guðmundsson 1977, 13-15; Haraldsson 1985, 5-6.

¹⁰ Guðmundsson 1977, 14; Haraldsson 1985, 10; Þorleifsson 1974, 9-30.

¹¹ Day 2012.

¹² National Historic Ships Register.

The structure of Sigurfari is typical for the sailing trawlers of the 19th Century. The characteristics of these vessels are a straight bowsprit and keel, square stern, rounded hull and a deep heel. Sigurfari is ketch rigged, distinguished by a taller mainmast and a lower after mast.¹³

When considering the significance of Sigurfari it needs to be noted that the ship has undergone extensive refurbishment and restoration throughout her time. When the ship was purchased from the Faroe Islands in 1974 it had been fitted with a motor and a steering house had been added. However, the hull retained its original shape. Work began in 1979 to restore the ship to its original state for exhibition. The work was quite extensive as Sigurfari was in a poor condition at the time of arrival at the Akranes Folk Museum. The deck, after mast, main rail and stern were renewed. A mainmast from Sigurfari's sister ship, Dasher built in 1883 at the same shipyard, was obtained and fitted on Sigurfari.¹⁴ In 2002 the rigging was renewed. This restoration work carried out means that much of the original timbers of Sigurfari have been lost. In a 2015 report by a shipwright it is stated that the ship is again in a very poor condition and much of the timbers needs to be replaced.¹⁵

National Historic Ships in the United Kingdom have published a series called *Understanding Historic Vessels*. In the publications they provide criteria for the evaluation of significance of historic ships.¹⁶ The Agency for Culture and Palaces in Denmark has also developed a method for evaluating historic buildings, called SAVE.¹⁷ This can be used with modification for historic ships. Through these methods and with referral to the statement above four key elements have been identified for Sigurfari's significance:

- Representative of changes in the fishing industry in the 19th Century
- Structure and hull shape
- Rarity
- Emotional value and aesthetics

¹³ Guðmundsson 1977, 15; Haraldsson 1985, 5; March 1970, 57-61.

¹⁴ Day 2012.

¹⁵ Müller 2015.

¹⁶ Kentley et al. 2007.

¹⁷ SAVE. Kortlægning og registrering af bymiljøers og bygningers bevaringsværdi 2011.

Bibliography

- Day, K. 2012. *'Sigurfari'. Burton's Last Ship*. Burton upon Stather Heritage Group. Viewed on June 30th 2016. Website: <http://burtonstatherheritage.org/shipping/164>
- Guðmundsson, G. 1977. *Skútuöldin. Fjórða bindi*. Önnur útgáfa. Örn og Örlygur, Reykjavík.
- Haraldsson, G. 1985. *Kúttur Sigurfari. Sjómannadagsblað Akraness 1985*. Sigurfarasjóður og Byggðasafnið í Görðum, Akranes.
- Kentley, E., Stephens, S. og Heighton, M. 2007. *Understanding Historic Vessels. Volume 1. Recording Historic Vessels*. National Historic Ships. Viewed on May 20th 2016. Website: <http://www.nationalhistoricships.org.uk/pages/advisory-papers.html>.
- March, E. J. 1970. *Sailing Trawlers*. Percival Marshall & Company, Devon.
- Müller, M. 2015. *"Sigurfari". Rapport af skibstømrer Morten Müller. 1. júní 2015*.
- National Historic Ships Register. *City of Edinboro'*. Viewed on June 30th 2016. Website: <http://www.nationalhistoricships.org.uk/register/503/city-of-edinboro>
- SAVE. Kortlægning og registrering af bymiljøers og bygningers bevaringsværdi. 2011. Morten Stenak (ritstj.). Kulturarvsyrelsen, Kaupmannahöfn.
- Þorleifsson, H. 1974. *Saga íslenzkrar togaraútgærðar fram til 1917*. Bókaútgáfa menningarsjóðs, Reykjavík.