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# PRESERVING A MAJOR OILFIELD ON THE NORWEGIAN CONTINENTAL SHELF – STATFJORD

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▪ Since 1971 hydrocarbons have been produced from deep under the Norwegian Continental Shelf (NCS). In order to receive and process the "black gold", huge structures have been built, transported and installed on the seabed in water depths ranging from 60 to 1.000 meters. In March 2000, when plans for abandonments were being introduced, the Norwegian Directorate for Cultural Heritage (NDCH) sent a letter to several museums with interests relating to the offshore activities. The NDCH raised a challenge: *"What cannot be preserved should be documented"*. This article describes how the Norwegian Petroleum Museum (NPM) has solved this challenge in several industrial heritage documentation projects. "Industrial Heritage Statfjord" is the third in a row of now five large documentation projects. The Statfjord field is still one of the largest producing fields on NCS, and is especially focused in this article. The article also explains the important cooperation between NPM and the National Archives and the National Library in Norway.

▪ Sinds 1971 zijn koolwaterstoffen geproduceerd van diep onder het Noors continentaal plat (NCS). Om het "zwarte goud" te ontvangen en verwerken werden enorme structuren gebouwd, vervoerd en geïnstalleerd op de zeebodem in waterdiepten variërend tussen 60 en 1000 meter. In maart 2000 - wanneer de plannen voor het verlaten ervan werden geïntroduceerd - stuurde het Noorse directoraat voor cultureel erfgoed (NDCH) een brief naar verscheidene musea met interesses gerelateerd aan de offshore activiteiten. Het NDCH stelde een uitdaging: *"Wat niet kan bewaard blijven, dient gedocumenteerd te worden"*. Dit artikel beschrijft hoe het Noors Petroleummuseum (NPM) deze uitdaging oploste in verschillende industriële erfgoeddocumentatieprojecten. "Industrieel erfgoed Statfjord" is het derde in de rij van de nu reeds vijf grote documentatieprojecten. Het Statfjord veld is nog steeds een van de ruimst producerende velden op het Noors continentaal plat en is vooral de focus in dit artikel. Het artikel legt ook de belangrijke samenwerking uit tussen het NPM en de Nationale archieven en de Nationale bibliotheek in Noorwegen.

▪ Depuis 1971, des hydrocarbures ont été extraits de profondément sous le plateau continental norvégien. Afin de recueillir et de traiter cet "or noir", de gigantesques structures ont été construites, transportées et installées sur le fond marin dans des profondeurs variant entre 60 et 1.000 mètres. En mars 2000, quand des plans de démantèlement de ces plates-formes pétrolières ont été introduits, la Direction du patrimoine culturel norvégienne a adressé une lettre à différents musées invitant à manifester leur intérêt pour ces activités "offshore". Elle lançait ainsi un défi : *"Ce qui ne peut être préservé doit être documenté"*. Cet article décrit comment le Musée norvégien du pétrole (NPM) a relevé le défi par différents projets documentaires relatifs à ce patrimoine industriel. "Industrial Heritage Statfjord" est le troisième en ordre de cinq grands projets documentaires actuels. Le champ pétrolifère de Statfjord est encore toujours un des plus grands champs en production du plateau continental, et est plus spécifiquement examiné dans cet article. L'article explique également l'importante collaboration entre le NPM, les Archives nationales et la Bibliothèque nationale de Norvège.

Since 1971, hydrocarbons have been produced from deep under the Norwegian Continental Shelf (NCS). In order to receive and process the "black gold", huge structures have been built, transported and installed on the seabed in water depths ranging from 60 to 1.000 meters. These giant platforms and subsea installations have made it possible for Norway to become a wealthy and prosperous nation.

Towards the end of the 20<sup>th</sup> century, some of the hydrocarbon reservoirs were becoming exhausted, and plans were made for the platforms to be decommissioned and removed. However, the installations which were going to be removed, had played an important role in modern Norwegian history. Oil revenues had helped create the Norwegian welfare state with good health, education,

sickness and retirements benefits. We should preserve the history of the oil fields and the installations in some way, but how could it be done? Given the size of the structures, it was not feasible to store them anywhere close enough for the public to visit (Fig. 1).

Instead, the Norwegian Petroleum Museum (NPM) has created documentation projects, establishing an archival solution for preserving sources, with the emphasis on drawings, photographs, films, publications, objects, interviews and other material. Digital databases represent the principal medium for storing these sources. So Norway's oil heritage is now captured online via dedicated websites, as a digital national memory.

## Background

In the early 1960's nobody in Norway really believed that oil could be found outside our coast since a letter from the Norwegian Geological Survey in 1958 stated that: *"The chances of finding coal, oil or sulphur on the continental shelf off the Norwegian coast can be discounted"*. However, interest was raised and several seismic investigations were made in the, at that time international, waters of the North Sea in the first half of the 1960's.

In 1965, the Norwegian Ministry of Industry put most of the blocks on the NCS south of the 62<sup>nd</sup> parallel on offer. On August 17<sup>th</sup>, nine different industrial groups – dominated by the international majors – were given licences to drill for hydrocarbons on 74 blocks, each about 500 square kilometres.

The real history began just before Christmas 1969 however: the Ekofisk field – which is a giant oil and gas field – was found by Phillips Petroleum Company Norway. A speedy development project resulted in oil production starting from the Norwegian continental shelf on June 9<sup>th</sup> 1971. Since then, nearly 100 fields have been developed on the NCS.

At the turn of the millennium, some of the oilfields were going to close down. Questions arose as to whether the platforms should be scrapped on decommissioning, or whether aspects should be kept intact and become museums to be symbols of Norway's early oil age. The environmental action plan for the petroleum sector produced by the Ministry of Petroleum and Energy in 1999 stated the necessity to ensure that important and historical structures were preserved and made accessible for future generations, as well as documenting the development of government administration.<sup>1</sup>

To scrap the platforms was the alternative preferred by the oil companies as it would be fast and relatively cheap, and was already factored into their plans. Historians and representatives from museums may have preferred the second alternative – preservation. However, the structures are so huge that there is no place to store them anywhere close enough for the public to visit. The maintenance would also be very expensive. The largest platform, Troll, is almost 500 meters tall and weighs more than one million metric tons. The deck areas of several of the platforms have the size of more than three football fields! Thus only one option remained – to document the platforms and the oil fields.



Fig. 1: Statfjord C was put into production in 1985. In the foreground, the loading buoy to the platform.

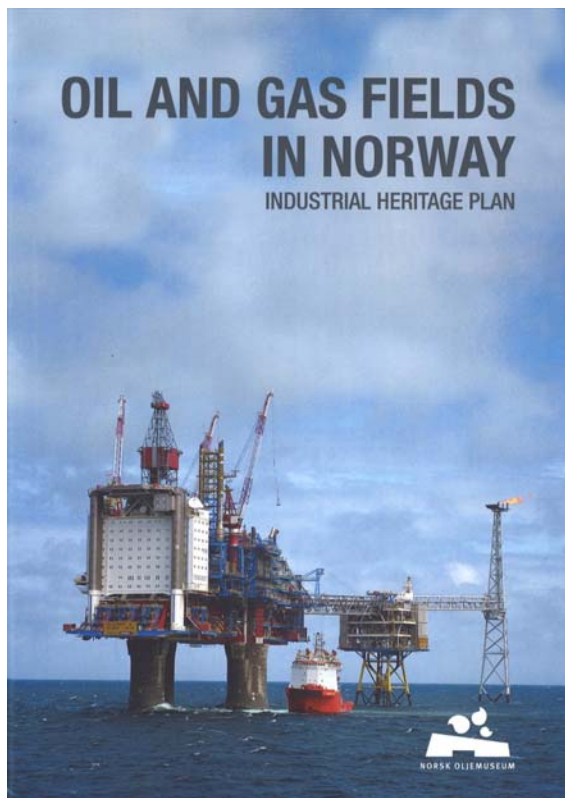
In a March 2000 letter to several museums with interests relating to the offshore activities, the Norwegian Directorate for Cultural Heritage (NDCH) raised a challenge: *"What cannot be preserved should be documented"*<sup>2</sup>.

This was the background for the NPM to start the first oil field documentation project in 2002 – The Ekofisk Industrial Heritage – completed in 2005<sup>3</sup>. Since then other fields have been documented and further projects are underway. The aim of the documentation projects has been two-fold: firstly, the collection of source material to be preserved for future generations, and secondly to create access to this material via Internet and books, making it easier to understand activities such as technical processes and working life and placing the historical material in context.

## Choosing sites for documentation: Beyond Ekofisk

How did NPM select which of the many fields to document? The first two, Ekofisk and Frigg, were the obvious candidates. Ekofisk was the very first oil-producing field on the Norwegian continental shelf. While Frigg was a major gas field on the border to Great Britain and an important supplier of natural gas to British homes, now totally decommissioned<sup>4</sup>. Since the Frigg field, operated by a French company, was part of both the UK and Norwegian continental shelves, it was of particular interest and allowed for collaboration with the University of Aberdeen on the documentation project<sup>5</sup>. The British archivists wanted to learn from the Norwegian experience in documenting the Ekofisk field, which was the first documentation project of its kind.

During these early stages, NPM suggested to the Ministry of Petroleum and Energy (MPE) and the Norwegian Oil Industry Association (NOIA) that there should be a national industrial heritage plan<sup>6</sup>. An estimated project of 2,8 million Norwegian kroner (about 350.000 Euro) was introduced



*Fig. 2: The Cultural Heritage Plan for the Norwegian Continental Shelf was published for the first time in 2010.*

with a suggested split between the two institutions<sup>7</sup>. In September 2004, the NPM was commissioned by the MPE, the Norwegian Petroleum Directorate (NPD) and the NOIA to draw up such a plan. A necessary starting point for conserving an industrial heritage is that the industry in question has a satisfactory overview of what it administers and how it is to be conserved. In 2010, this resulted in a book covering all the 92 fields that had been developed since 1971<sup>8</sup>. Both the project management and the production of the book were handled by the NPM (Fig. 2).

An important element in the production of the industrial heritage plan was the early introduction and forming of a steering and reference group consisting of ten people with outstanding experience from many different aspects of the oil industry and some with a professional museum/historical background<sup>9</sup>. The group's main task apart from ensuring quality in the final product was to establish the significant selection criteria for choosing facilities to be defined as industrial heritage monuments.

Their final criteria were:

- Installations representing different development eras
- The first, most important or most representative technology
- Illustrating the breadth in development solutions or platform types
- Special projects (i.e. CO<sub>2</sub> removal, sub surface production from satellite fields)
- Unique in a Norwegian or international context
- Economic significance
- Social significance
- Special historical incidents associated with the installations
- Political decisions and debate over the development

Based on these criteria, the project's steering and reference group conducted an integrated assessment of all potential fields. They came up with this list of priority areas (in alphabetical order):

A-list:

- Ekofisk area (project completed 2005)
- Frigg area (project completed 2008)
- Oseberg area
- Snøhvit
- Statfjord area (project completed 2012)
- Troll area
- Valhall area (project completed 2015)
- Åsgard area

B-list:

- Balder area
- Draugen (project ongoing)
- Grane
- Gullfaks area
- Ormen Lange
- Snorre area
- Ula area

Tab. 1: Available sources of information for use in a typical industrial heritage documentation project.

Source	Total amount	To be used
Archives (letters, reports etc.)	5.000 – 10.000 shelf meters	200 shelf meters
Technical drawings	200.000	500 – 1.000
Photographs	10.000 – 15.000	5.000
Films and videos	100 titles	100 titles
Audio files	100	100
Publications (books, pamphlets etc.)	5.000 pages	5.000 scanned pages
Illustrations (maps, artist impressions etc.)	1.000	350
Operating manuals	500	50
Interviews	-	30 – 50
Objects	-	> 100

In addition, the rest of the fields, which were producing at that time, were given either C or D priorities. Since the introduction of the Industrial Heritage Plan several fields have been developed and discovered and there are now more than 100 installations producing hydrocarbon from the sectors along the coast of Norway – the North Sea, the Norwegian Sea and the Barents Sea. How to update the priority list has not yet been decided, but the museum is cooperating with NPD to present an updated map of the operating fields – the map is also on display at the museums website.<sup>10</sup>

## Statfjord as a digital national memory

Statfjord is a large oil and gas field, which straddles the UK-Norwegian boundary in the North Sea, and currently divides 85.47 per cent to Norway and 14.53 per cent to Britain. The Norwegian share lies in blocks 33/12 and 9, and the UK portion in blocks 211/24 and 25. Located in roughly 150 meters of water, the Statfjord area embraces the Statfjord, Statfjord East, Statfjord North and Sygna fields.

The main field has been developed with three fully integrated production, drilling and quarters platforms. Statfjord A is situated centrally on the field, with the B installation to the south and Statfjord C to the north. Statfjord East, Statfjord North and Sygna have been developed with subsea templates tied back to the C platform for processing. The nearby Snorre field is also tied back to Statfjord A. Combining concrete platforms with oil storage capacity and the development of offshore loading into tankers was an important requirement for bringing the field on stream.

When the NPM started the Industrial Heritage Statfjord project, it used the methods for documentation cultivated through the Industrial Heritage Ekofisk and Frigg projects. The creation of a

documentation project means ensuring a responsible selection and disposal of historically valuable source material so that it is not lost for future generations. The documentation shall provide a comprehensive and nuanced picture of what once existed, and give future generations an opportunity to understand what was happening, and the impact it made for industrial and social development.

NPM has decided that documentation shall highlight the physical structure above the water and on the seabed including wells, exteriors, interiors, machinery and equipment and major modifications. It also includes descriptions of the work processes, work environment and effects on the economy, politics and society. The projects also include documentation of the characteristic features of the development of the field, such as technological development, special projects, historical events, negotiations and decisions that underlie the development decisions and choices of expandability option, political decisions and debates



Tab. 2: Items found in the three completed industrial heritage projects.

Items \ Projects	Ekofisk	Frigg	Statfjord
Produced articles	279	188	266
Photographs	4.037	4.604	5.222
Books	390	169	1.425
Films	104	52	93
Objects	291	308	68
Audio clippings	95	22	50
Magazines/Pamphlets	24	608	552

related to the development. The industrial heritage project can include an article about the geological structures containing the hydrocarbons forming the basis for the development of the fields. For the Statfjord field, which is still producing oil and gas, we used a more general and not a detailed description since it is sensitive information.

It was essential to collect source material that represented complementary ideas and opinions to the operating group. The project utilized many original sources and an extensive selection of these materials in order to present a comprehensible documentation of the Statfjord field.

The Statfjord Industrial Heritage and the other similar projects are organized in cooperation with the Archive, Library and Museum (ALM-project). Each of the partners does what it does best:

- National Archives of Stavanger and Norway take care of written archival material.
- The National Library (NL) is the depository institution for digital media. The NL unifies common database searches.
- The Norwegian Petroleum Museum is the project leader. The museum collects, records and preserves objects, photographs, films, radio clips, publications and does interviews. The researchers at the museum are writing editorial texts. Dissemination takes place via the Internet and exhibition.

The material for each documented field made available for the Petroleum Museum to use is very large (see Table 1). The middle column indicates the total number and the right hand column indicates how much is typically presented on the website. Table 2 shows a summarized content of the different available items for each documentation project.

## Archives

The National Archives of Stavanger (NAS) has made its own criteria for the selection of the companies' archive material from the field's history to document the development and operation offshore and parts of the land-based activities. Material not found elsewhere has been given priority, while information which is being taken care of by the NPD and the MPE, has not been selected. Basically, there have been several thousand shelf meters filed in the operators' company archives, but only a few hundred shelf meters have been selected for storage at the NAS archives for the documentation projects. Through organisation and registration duplication has been reduced. The catalogue to the archive is available online, and – perhaps a reflection of the transparency of Norwegian culture – the NAS has even been allowed to present some material that could be considered commercially sensitive on the web. For instance, original reports from board meetings at Mobile Oil Corporation in Houston USA from the 1970s, can be found regarding the Statfjord projects.



Fig. 3: The gas compressor Statfjord C dominates the museum entrance, and gives the audience a hands-on experience. Photo: Harald Pettersen/Statoil.

Drawings are a separate category within the archives. From the original thousands of drawings the National Archives have selected a few hundred. It has been important to save different types of drawings such as flow diagrams, artist's impressions, arrangement drawings, geological maps, well descriptions, etc.

## Objects

Through the documentation projects, several hundred physical objects have been gathered and stored at the NPM. Examples of such items are a large number of models, signs and posters from the platforms and control panels to mention a few. All the objects are described, photographed and registered in a special database.<sup>11</sup>

The exhibition uses many models to show how platform design has developed etc., but we also want to show real objects to give a feeling of the dimensions in the industry. The heaviest piece placed inside the exhibition is a compressor from one of the Statfjord platforms (weight abt. 10 tons). To be able to get the gas through the pipeline all the way to the westcoast of Norway, the gas coming from the wells must have a higher pressure. Several compressors were installed to achieve this. Today the Statfjord gas is shipped through pipelines to the UK, which do not need the same high pressure and the compressors are no longer needed. Before the compressor was taken to the museum, donated by the license group, it was cut open to make it possible to see the inside and make it easier to understand how a compressor works (Fig. 3).

## Bibliography

Documentation of an industrial plant means that consideration should also be paid to material that is not directly related to field development and operation. References to books, reports and newspaper articles set the development and operation in a wider historical context.

In order to secure access to published material about Statfjord, NPM has collected and forwarded a number of magazines, reports and published articles to the National Library for scanning and optical character recognition (OCR) to make them searchable. These publications are now available through the Internet. All the books related to the oilfield projects are registered and made searchable on the websites. Some of them can be read in full text. Articles from the project have also been published in the NPM's yearbook<sup>12</sup>.

## Audio-visuals

Much of the history is documented in the form of archival material, which is either already in digital form, or can be transferred to digital form, such as photographic and film material.

More than 5.000 photographs can be found at the website of Industrial Heritage Statfjord. They range from aspects of building sites, full views of platforms during installation, interiors, portraits and scenes from life on board the platforms both during work and leisure periods. The NPM's own photographers have been offshore to take pictures in addition to collecting pictures from the archives of the Statoil as well as private photographs taken by offshore employees (Fig. 4). The private pictures are especially interesting since they present a different aspect of life on board from the official photographs. Metadata for all of the pictures have been registered and can be searched from the



Fig. 4: A derrick man working above the drilling floor at Statfjord in the "old days". Photo: NPM.

website. The photos can also be found through the internet portal Europeana.eu<sup>13</sup>.

Film is an interesting source category with the ability to tell vivid stories. At the website, close to a hundred movies are available. The films have been digitalised and registered in a special database program by the National Library. The archives

of the Norwegian National Broadcasting company (NRK) provide another unique source that can convey the attitude to oilfield exploitation at different periods. The National Library has stored a large number of radio and film clips with relation to the history of the different oilfields, which can be found through the websites.

The documents in the collection are represented in a wide variety of media and formats. In many cases, it will be necessary to take special precautions to ensure that the documents, over time, are not damaged or become inaccessible. This would apply, for example for digital documents, photographs and original movies. Digitally stored material must be preserved in such a way that it can migrate into other formats as new storage media develops. The management of this diversified material therefore requires a thoughtful and robust document management solution. The National Library of Norway has adequate systems, procedures and strategies for managing documents and digital objects, as well as preservation and retrieval of these and has built up a digital repository for the physical protection of any digital object to be preserved in the long term<sup>14</sup>.

## Oral histories

NPM has made an attempt to preserve some immaterial heritage by interviewing a number of people with personal experience of working offshore. Historians at the NPM executed the interviews. All interviews have been recorded, printed and filed at the museum, but as they may contain sensitive information, only a resume is available at the cultural heritage web sites. Researchers, who want to study a whole interview, can do this by asking the museum. Through the interviews new unique source material is created.

To provide a broad picture of work on the oilfields we have selected individuals with a wide range of professional careers such as geology, drilling, well technology, production, communication, maintenance and offshore support services like safety, medicare and catering. For the Stat-

fjord project, people with experience from the engineering and construction of the platforms were also interviewed.

Lessons learned from the earlier projects have shown that it is crucial for the quality of the project to be completed while the fields are still in operation and while there are still people who have personal experience from the fields' pioneer periods. This ensures the finding of documentary sources and the gathering of first-hand testimony from people who have been central to the work of development and operation of the fields.

## Making the industrial heritage available

The histories about the fields, installations, work processes, daily life on board, economic and social effects on Norwegian society are presented in a well-organised and vivid manner on the dedicated website for the Industrial Heritage Statfjord<sup>15</sup>.

Presentation in the form of editorial texts is used as a gateway to understanding how field installations, workplaces, important historical events and the economic and social consequences for each field have developed. Around 200 articles have

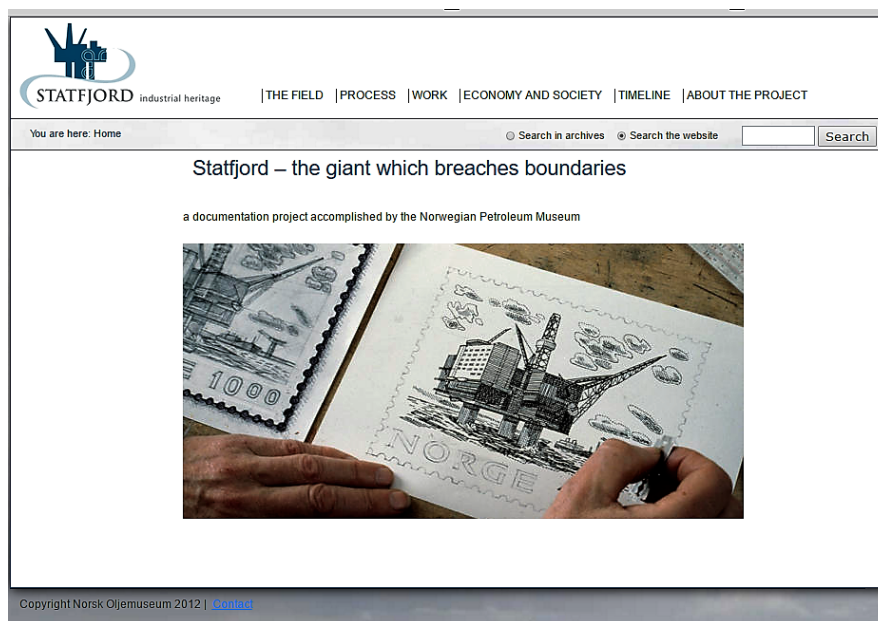


Fig. 5: The website of the Industrial Heritage Statfjord is the entrance to all the information collected in the documentation project.

been written, many accompanied by linked media elements (photography, film, drawings, etc.) drawing on the original source material in the databases. The majority of the articles were written by the researchers at the museum, although some were written by specially-commissioned external experts where special disciplines or technologies

beyond the scope of the NPM's expertise were required. All of the editorial presentations have been translated from Norwegian into English.

All of the Industrial Heritage project websites can be accessed from the NPM site<sup>16</sup>.

The Industrial Heritage Statfjord website (Fig. 5) is organized around six main themes:

- The field and installations
- The production process
- Work and leisure
- Timeline of key events
- Economy and Society
- Search function for the databases

None of the Industrial Heritage websites is alike, even though they have been formed in the same general pattern. The museum has tried to give each website a special focus: the Ekofisk focused on the technology, the jobs and the people that made the history, the Frigg projects focused more on the cooperation between the workers and the technology and the fact that the gas field was on the border between Norway and UK. For the Statfjord industrial heritage project, we looked more upon the fabrication of the installations and the Norwegian influence. Of course, the special geology of each field has given different challenges for the operating companies. The cultures of the operating companies are also looked at, the American (Ekofisk), the French (Elf/Total) and the Norwegian (Statoil) are given special attention in the projects.

In our roles as creators and distributors of knowledge about Norway's oil heritage, we regularly ask ourselves whether these projects are fulfilling their aims. We are aware of projects such as Historic American Buildings Survey/Historic American Engineering Record in the US<sup>17</sup> and Völklingen Ironworks in Germany<sup>18</sup>, but their focus is mainly on the visible buildings and artefacts.

The Norwegian Petroleum Museum's Industrial Heritage projects also focus on the intangible heritage and are already proving fruitful for both researchers and commoners and are more in line with the website of the Branobel History<sup>19</sup>.

The most important task is to select and preserve material concerning this important period of Norwegian history for future generations. In relation to this, we are confident that the projects are successful.

For the task of public dissemination of each specific oil field project, the website launch for Industrial Heritage Statfjord was accompanied by a temporary exhibition at the Museum. The exhibition

was popular, and visitor traffic to the website has been encouragingly high.

We know from inquiries that many journalists from both newspapers, television and radio have used the site. Students from universities, colleges and high schools have also approached the museum to find relevant information for theses of different kinds.

The NPM Industrial Heritage projects have been presented at several conferences for technology history: SHOT (Society for the History of Technology), TICCIH (The International Committee for the Conservation of the Industrial Heritage), Tekna (The Norwegian Society of Graduate Technical and Scientific Professionals), Norwegian Technical Museum, and Capturing the Energy (Scotland). In connection with the Frigg project, we collaborated with the University of Aberdeen, which has largely used our method, but on a smaller scale since they only documented one platform.

Thus the Norwegian Petroleum Museum's approach to collecting and presenting the heritage of the large oil and gas producing fields on the Norwegian continental shelf can be useful for others. Nevertheless, for everyone it will be a challenge to cope with the technology of the computing world. Systems and technology change very rapidly, and to be able to preserve the web sites it is important to find the most likely durable solutions for digitalization and presentation. This is of course also limiting the fanciest ways of presenting the available material. To find the best solutions is crucial. It makes it possible to have historical material visible on the Internet – (today many young people claim that what is not on the net, does not exist).

However, we have plans to continue producing industrial heritage projects for a long time to come. The outcomes of such projects, made accessible through the Internet, constitute important digital national memories of how the exploitation of "black gold" has shaped today's Norway.

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## Notes

- 1 Ministry of Petroleum and Energy "*Miljøhandlingsplan for olje- og energisektoren 1999*".
- 2 Letter dated March 20, 2000 from the Norwegian Directorate for Cultural Heritage "*Konsekvensutredning for utvikling og disponering av Ekofisk I*".
- 3 Kulturminne Ekofisk [Ekofisk Industrial Heritage]. [on line] <<http://www.kulturminne-ekofisk.no>> (consulted on 19-03-2016).
- 4 Kulturminne Frigg [Frigg Industrial Heritage]. [on line] <<http://www.kulturminne-frigg.no>> (consulted on 19-03-2016).
- 5 Frigg UK: 30 Years On. [on line] <<http://www.abdn.ac.uk/historic/energyarchive/>> (consulted on 19-03-2016).
- 6 Letter dated February 28, 2003 from the Norwegian Petroleum Museum and letter dated May 12, 2004 from the Norwegian Petroleum Museum "*Søknad om prosjekt: "Kulturminner i norsk petroleumsvirksomhet"*".
- 7 Letter dated May 12th, 2004 from the Norwegian Petroleum Museum "*Søknad om prosjekt: "Kulturminner i norsk petroleumsvirksomhet"*".
- 8 Tønnesen, Harald ; Hadland, Gunleiv. "*Oil and Gas fields in Norway – Industrial heritage plan*". Norwegian Petroleum Museum, 2010, 268 p. [on line] <[http://www.norskolje.museum.no/modules/module\\_123/proxy.asp?D=2&C=293&I=3467](http://www.norskolje.museum.no/modules/module_123/proxy.asp?D=2&C=293&I=3467)> (consulted on 19-03-2016).
- 9 The steering and reference group consisted of Rolf Wiborg, Norwegian Petroleum Directorate, Gustav Rossnes - Norwegian Directorate for Cultural Heritage, Maiken Ims - Norwegian Oil Industry Association, Finn E. Krogh - Norwegian Petroleum Museum, Sveinung Sletten, Petoro, Jorunn B. Eia - BP Norge AS, Oddveig Haga - A/S Norske Shell, Finn Roar Aamodt - Statoil, Dag Bergslien - ExxonMobil, and Dag Olaf Ringe - Total E&P Norge.
- 10 Petroleumskartet [Petroleum Map]. [on line] <<http://www.petroleumskartet.no>> (consulted on 19-03-2016).
- 11 DigitaltMuseum [search on Artefact x NOM x #Statfjord]. [on line] <[http://www.digitaltmuseum.no/search?name=%23Statfjord&rows=24&sort\\_by=&page=1&type\\_filter=Thing&owner\\_filter=NOM&js=1](http://www.digitaltmuseum.no/search?name=%23Statfjord&rows=24&sort_by=&page=1&type_filter=Thing&owner_filter=NOM&js=1)> (consulted on 19-03-2016).
- 12 Norwegian Petroleum Museum Yearbook 2004, p. 11-42; Norwegian Petroleum Museum Yearbook 2007, p. 7-85; Norwegian Petroleum Museum Yearbook 2012, p. 7-93.
- 13 Europeana Collections. [on line] <<http://www.europeana.eu/portal/>> (consulted on 19-03-2016).
- 14 Solbakk, Svein Arne. Digital Preservation at the National Library. Norwegian metacenter for computational science, *META magazine*, no. 3, 2013 p. 17-21, and National Library of Norway. Digitizing Policy. [on line] <<http://www.nb.no/English/The-Digital-Library/Digitizing-policy>> (consulted on 19-03-2016).
- 15 Kulturminne Statfjord [Statfjord industrial heritage]. [on line] <<http://www.kulturminne-statfjord.no>> (consulted on 19-03-2016).
- 16 Norwegian Petroleum Museum. [on line] <<http://www.norskolje.museum.no>> (consulted on 19-03-2016).
- 17 Library of Congress. Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey. [on line] <<http://www.loc.gov/pictures/collections/hh/>> (consulted on 19-03-2016).
- 18 Unesco. Völklingen Ironworks. [on line] <<http://whc.unesco.org/en/list/687>> (consulted on 19-03-2016).
- 19 The Branobel History. [on line] <<http://www.branobelhistory.com/>> (consulted on 19-03-2016).