ANNEXES
to the nomination material

Kujataa
– a subarctic farming landscape in Greenland
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January 2016
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*Kujataa – a subarctic farming landscape in Greenland*

January 2016

The Greenlandic Ministry of Education, Culture, Research and Church

Kujalleq Municipality in South Greenland

The Greenlandic Ministry of Industry, Labour and Trade

Greenland National Museum and Archives
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MANAGEMENT PLAN 2016–2020

Kujataa - a subarctic farming landscape in Greenland
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January 2016
Foreword
This management plan for *Kujataa – a subarctic farming landscape in Greenland* is intended to promote positive development in the nominated World Heritage property that will secure its cultural landscape values.

The plan has been formulated as a general steering tool for managing authorities to ensure that the property’s values are preserved and developed in a sensible balance between conservation and use of the area. The management plan lays down the framework for how we steward Kujataa sustainably and in accordance with the UNESCO World Heritage Convention.

Management of the property will develop progressively over time. Changes in the use of the area and experience gained from previous initiatives will be incorporated into annual assessments of the management of the property and used to make adjustments to the management plan. This first management plan represents a decisive step towards the targeted management of the nominated World Heritage property.

During the course of its preparation, elements of this draft management plan have been discussed with relevant parties, including the population of Kujalleq Municipality, which has been involved through public meetings and visits to selected sheep farms.

We hope that this plan can form the foundation for good working relationships aimed at preserving Greenland’s cultural heritage.

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*Nuuk, 9th of September 2015*

Nivi Olsen
Minister for Culture
Government of Greenland

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1 Introduction

In 1996, the Nordic Council of Ministers published the report “Verdensarv i Norden” – World Heritage in the Nordic Countries (NORD 1996:30), which proposed new Nordic properties that the nation states were recommended to nominate to UNESCO. The report contained three proposals for Greenlandic World Heritage properties, one of which encompassed the Hvalsey church ruin (Qaqortukulooq), the episcopal seat of Gardar (Igaliku) and Brattahlid (Qassiarsuk), the Norse/Inuit Greenlandic cultural landscape located in the former Narsaq and Qaqortoq Municipalities in South Greenland. In autumn 2002, Greenland called on the Danish Government to be party to nominating these three areas for inscription on UNESCO’s Tentative List.

Kujataa became an official candidate for the World Heritage List in February 2003. Since then, work has been ongoing to delimit, examine and describe the proposed World Heritage property, update legislation and rules and plan the management of the property’s values.

In 2006, the foundation Aage V. Jensens Fond granted funds to the Directorate (now Ministry) of Culture, Education, Research and Church for work on a World Heritage project in South Greenland. In the first phase of the project, information meetings were held about the plans for a future World Heritage area in South Greenland and within the Government of Greenland with the participation of a wide range of interested parties. A steering group was formed, which then travelled around in connection with the first meetings in Narsarsuaq, Qassiarsuk, Igaliku, Narsaq, Qaqortukulooq and Qaqortoq. The steering group agreed on a new storyline for the World Heritage project in South Greenland under the title “Kujataa – Arktisk bondekultur i 1000 år” (Kujataa – an Arctic farming culture through a millennium). In 2007, agreement was reached in the steering group on delimitation of the nominated World Heritage property; this comprises five component parts, which together constitute the core area of both the Norse and the more recent Greenlandic farming landscape.

In 2007, Aage V. Jensens Fond granted financial support for the second phase of the project. The consultant at the time, Peter Nielsen, undertook a fact-finding trip with representatives of the then Heritage Agency of Denmark and the Swedish international expert Birgitta Hoberg on World Heritage. The comments received were used to produce “Notat om det eventuelt kommende Verdensarvsområde i Sydgrønland” (Memorandum on a potential future World Heritage property in South Greenland) of 16th September 2008, subsequent to which some adjustments were made in relation to the delimitation of the component parts. In 2009, new maps were produced with revised boundaries for the nominated World Heritage property. These were subsequently approved by the Government of Greenland after negotiations with the Ministry of Mineral Resources.

In 2013, a new steering group was established, comprising members from the Ministry of Culture, the Greenland National Museum and Archives, Kujalleq Municipality and the Danish Agency for Culture and Palaces. This steering group has been leading the ongoing work on the third phase of the project, which has included an examination of the existing building stock. Conservation guidelines have been laid down for each individual building.

The Government of Greenland has, in conjunction with Kujalleq Municipality and the Greenland National Museum and Archives, taken a number of initiatives aimed at preserving the property’s values. Further measures are underway or planned for the coming years. This management plan contains both.
2 Outstanding Universal Value (OUV) of Kujataa

Kujataa is an outstanding example of human settlement, with a unique economic regime in a challenging environment, proposed under UNESCO criterion number (v).

Proposed statement of outstanding universal Value

Brief synthesis

Summary of factual information
*Kujataa – a subarctic farming landscape in Greenland* is located in the municipality of Kujalleq in South Greenland. The nominated property is made up of five component parts that together represent the demographic and administrative core of a farming community based on a combination of animal husbandry and marine mammal hunting established by Norse colonists in the 10th century AD and continued to this day by Inuit farmers.

Summary of qualities
The overall landscape of pastures, fields, ruins and present-day buildings is an outstanding example of a human settlement and land use in the Arctic, which is representative of a unique farming culture. Kujataa represents the first European settlement in the New World and the earliest introduction of farming into the Arctic. The resulting cultural landscape, shaped by grazing both in medieval and modern times, is composed of grassy slopes and willow copses and characterised by low settlement densities with isolated farmsteads surrounded by cultivated fields. The landscape of Kujataa represents an exceptionally comprehensive preservation of a medieval Northern European culture. The five component parts contain the full range of relics relating to Norse Greenlandic culture dating from the 10th to the 15th centuries AD, with complete examples of monumental architecture as well as key sites illustrative of the adaptation of the Inuit to a farming way of life from the 18th century onwards.

Justification of criterion
Situated between the cold desert of the Greenland ice cap and the cool outer coast of the Labrador Sea, Kujataa is an oasis with a relatively mild climate. Subsistence practices based on a combination of animal husbandry and sea mammal hunting represent unique adaptations in both Norse and Inuit cultural contexts and have resulted in a distinctive cultural landscape where cultivated fields and managed pastures contrast with the barren wastes of the Arctic. Kujataa is an extremely marginal landscape for farming, vulnerable to environmental change in the present as well as during the Middle Ages, illustrating both the fragility and resilience of cultural traditions.

Statement of integrity
The boundaries of the nominated property are clearly defined and encompass all of the elements necessary to express its outstanding universal value. A comprehensive range of farming landscape is represented, including fields, meadows and pastures and including introduced and naturalised plants. All of the known elements relating to Norse Greenlandic culture—including farms,
churches, cemeteries and outfield structures—are represented in large numbers and the full range of variation. The nominated property includes key sites relating to the reintroduction of farming in the 1780s and encompasses the core areas of contemporary farming. Thule Inuit culture is represented on the nominated property by graves, summer camps and other relics of seasonal exploitation.

Statement of authenticity
The nominated property has authenticity because the landscape retains the pastoral character introduced in the 10th century AD, exemplified by isolated farms surrounded by cultivated fields and interspersed by managed pastures set against a background of vast and untouched wilderness. The archaeological remains of the Norse Greenlandic settlements in Kujataa have retained the highest degree of authenticity. The form, design and material composition of houses and other relics of this culture are unquestionably European and Norse. The characteristics and distinguishing features of Greenland Norse and Thule Inuit material culture are clear and well known. This has been established through large scale excavations, extensive field surveys and intensive typological, art historical and environmental analyses stretching back into the 19th century. The historical view of the Norse Greenlandic settlements draws on contemporary written records from Iceland and Norway dating back to the 12th to 15th centuries AD. Conservation of architectural monuments has primarily taken place in the last 20 years based on the principle of ensuring structural stability rather than rebuilding. The majority of the Norse Greenlandic sites have suffered no anthropogenic modification since their abandonment. Modern sheep farms, located mostly on or adjacent to Norse Greenlandic farm sites, respect and reanimate the medieval settlement pattern, maintaining the landscape’s managed character. Detailed historical documentation and protected historic buildings in the farming settlements bear witness to the farming culture of modern Inuit.

Requirements for protection and management
A combination of effective legislation and well-organised municipal planning strategies—together with an up-to-date management plan—and a dedicated local community, contribute to the long-term protection and management of the nominated property and ensure the preservation of its outstanding universal value.

Following the inscription to the World Heritage List, the site will be governed and managed by a steering group with representation from the Government of Greenland, the Greenland National Museum and Archives, Kujalleq Municipality, village councils, sheep farmers, the Danish Agency for Culture and Palaces and the tourism industry. Day-to-day management will be carried out by a local secretariat headed by a site manager and a staff of site rangers in close collaboration with the authorities represented in the steering group.

All ancient monuments in the property are protected by the Greenland Parliament (Inatsisartut) Act on Cultural Heritage Protection and Conservation. This act ensures a protection zone of 20 metres around each ruin except for agricultural surface cultivation that may take place up to a distance of two metres from a monument. The ruin groups at Sissarluttoq (component part 3) and at the Qaortukuloq/Upernaviarusk (Hvalsey) site (component part 5) are further protected by their status as “cultural heritage areas”, including a much wider protection zone around the monuments, where no agricultural activities can take place with exception of pasture for sheep grazing during
summer. The important ruin groups in Qassiarsuk (component part 1) and Igaliku (component part 2) also have an additional protection zone through municipal planning.

The listed buildings in the property are protected by the same act as the ancient monuments, ensuring that demolition is prevented and that any alterations are carefully controlled. The Greenland National Museum and Archives is the responsible authority and offers advice and information on the maintenance of listed buildings. Furthermore, listed buildings are protected under the municipal planning.

These values are central to Kujataa’s status, and the management plan is particularly focussed on protecting and conserving these values.
3 The aim of this management plan

The overall aim of this management plan is to protect the values of universal significance that form the basis for the nomination of Kujataa for the World Heritage List in relation to other national and regional values, visions and codes of practice.

Here we have a cultural landscape that is one of the absolutely most marginal on earth in which to practise agriculture, both during the Middle Ages and in the present day. It is a landscape with the well preserved remains of a Northern European farming and hunting society that existed from the end of the 10th century until its enigmatic disappearance in the middle of the 15th century. Furthermore it is a settlement in South Greenland that involved cultural encounters between people from, respectively, "East" and "West", and which represented a milestone in the global spread of humankind since we migrated out of Africa.

The complete description of the nominated World Heritage property in Kujataa is contained in the nomination material for inscription of the area on UNESCOs World Heritage List.

This management plan is a practical administrative tool intended to safeguard the property’s universal values.

This management plan has the following aims:

- Protect cultural heritage values and agriculture
- Safeguard buildings
- Develop use of the area
- Spread knowledge of the World Heritage area
- Ensure that all users have an understanding of the World Heritage area and its unique value and promote the local population’s pride, interest and respect in relation to it
- Give all users the opportunity for safe, enriching and informative experiences
- Ensure that tourism develops on a sustainable foundation
- Create a sound and sustainable balance between the various uses and interests associated with the area
- Support research and ensure recording and communication of findings to the local population and for the benefit of other researchers and interested parties

For a more detailed description of the World Heritage, reference is made to the nomination documents.

The management plan comprises a toolbox of measures that must be implemented and adjusted over time as the area develops, and it therefore encompasses ongoing initiatives and both short and long-term visions.
4 Responsibility for the World Heritage area

UNESCO manages the international World Heritage Programme, which builds on the “Convention Concerning the Protection of the World Cultural and Natural Heritage” of 1972, which has the goal of preserving the world’s unique natural and cultural heritage for future generations.

The Danish Agency for Culture and Palaces assumes, on behalf of the Danish Realm, overall responsibility for the nominated World Heritage area in relation to UNESCO.

In relation to the authorities of the Danish Realm, the Greenland Government assumes overall responsibility for World Heritage areas in Greenland. As the Kujataa area has been nominated as a cultural heritage area, the responsibility within the Government of Greenland lies with the Ministry of Culture, which is responsible for historic assets deemed worthy of conservation and protection.

Responsibility for the general supervision and administration of historic assets lies with Greenland National Museum and Archives, in accordance with current legislation.

Kujalleq Municipality is responsible for activities in the local area as such, in accordance with the rules applicable to Greenlandic municipalities.

Fig.1. Responsibilities for the nominated World Heritage area of Kujataa:

The responsibility for the nominated World Heritage area is divided between the Government of Greenland, the Greenland National Museum and Archives and Kujalleq Municipality. This division of tasks is based on the distribution of tasks set out in national legislation (see Chapter 5).

4.1 Organisation

The steering group

In preparation for the nomination to the UNESCO World Heritage List, a steering group was set up, which reports directly to the Mayor of Kujalleq Municipality and the Minister of Culture.
The steering group comprises representatives of the four main parties involved: the Danish Agency for Culture and Palaces, the Government of Greenland, Kujalleq Municipality and the Greenland National Museum and Archives.

The steering group primarily handles the project’s relations with the four above-mentioned parties and with the UNESCO system. The steering group also has overall responsibility with regard to organisation and finances.

The current steering group shall function until such time as the area may be inscribed on the World Heritage List. If the area is inscribed on the World Heritage List, a permanent steering group shall be established to manage the future World Heritage area. This steering group shall have the following members:

- Kujalleq Municipality shall nominate two representatives:
  - One from the central municipal administration (chair), and
  - One from the joint settlement council for Igaliku, Qassiarsuk and Narsarsuaq.
- The Danish Agency for Culture and Palaces shall nominate one representative
- The Government of Greenland shall nominate two representatives:
  - One from the Ministry of Culture
  - One from the Ministry of Industry, Labour and Trade
- The Greenland National Museum and Archives shall appoint two representatives
  - One for the cultural heritage in general
  - One for historic buildings

Organisational diagram of the steering group
The site manager (project manager) for the area shall act as secretary for the steering group. The members shall meet once a year in the nominated World Heritage area. Due to the significant geographical distances involved, further contact shall take place between the members of the steering group via electronic means of communication.

The tasks and competencies of the steering group

The steering group shall consider and take decisions concerning the overall management of the area in Kujataa and maintain contact with UNESCO. Final decisions shall be made in accordance with the allocation of responsibilities described above.

The steering group shall consider among other things:

- General guidelines for activities at sea, on land and in the air
- How business, recreational, tourism and research activities can take place in the area, with due consideration of its status as a World Heritage Site.
- The overall framework for regular reporting to UNESCO
- Evaluation and updating of the management plan
- Evaluation and updating of the monitoring plan
- Various initiatives in the World Heritage area which can optimise the area’s assets
- How such initiatives can be financed

4.2 Project groups

Management group

Day-to-day activities, monitoring and division into sub-projects in the area shall be undertaken by a site manager in cooperation with a park ranger (attendant) and the management group for the World Heritage area in Kujataa. The management group shall consist of expert representatives from the Greenland National Museum and Archives, Kujalleq Municipality and the local area. The composition of the group is proposed as follows:

1. One Greenland National Museum representative for archaeological matters
2. One Greenland National Museum representative for historic buildings
3. One Kujalleq Municipality representative for the local museums in the municipality
4. One Kujalleq Municipality representative from the business/tourism sector
5. One Kujalleq Municipality representative for public works and the environment
6. One member from the cooperative Sheep Farmers’ Association SPS, representing local sheep farmers
7. One representative from the joint settlement council/office in Igaliku
8. One representative from the joint settlement council/office in Qassiarsuk
9. One representative from the joint settlement council/office in Narsarsuaq
10. Site manager

Organisational diagram of the management group
The group shall hold quarterly (telephone) meetings on the status of the area and coordinate new initiatives.

**Description of the tasks of the management group:**

- Oversee the running and monitoring of the World Heritage area and implement new initiatives
- Identify the need for and propose revision of the management plan and monitoring plan to the steering group
- Establish and maintain risk contingency facilities
- Report regularly to UNESCO
- Coordinate the execution of tasks in the area.

**Local Interest Groups**

The establishment of a local group with a particular interest in the status of the nominated area as a World Heritage area is under consideration. During the nomination process, this group shall comprise the three members of the joint settlement council, who communicate with interested citizens in the area via their network. Later, a special contact group with a broader membership may be established explicitly in relation to the World Heritage project. The main purpose of this group is to involve the local population in the work, keep interested parties informed of developments and make it possible to provide input for further work. The group shall, when nomination of the World Heritage area has taken place, consist of citizens with a special interest in being involved in the development of the future World Heritage area, such as sheep farmers, tradesmen (carpenters, plumbers, electricians etc.) and tourism businesses. Communication shall take place primarily through meetings in the local area as well as through (electronic) newsletters and other means of online communication.
Local network
Local authorities, institutions, businesses and associations shall be informed and consulted in relevant cases.

4.3 Site management

A site management office shall be established in Kujalleq Municipality that shall be responsible for the daily running, maintenance, marketing/communication and development of the area.

Organisation
An independent tourism institution called Destination South Greenland has been established by stakeholders within the tourist trade and is financed by a service contract with the municipality. This organisation will share an office and closely cooperate with the site manager, who shall lead and manage projects in the nominated World Heritage area as well as other sites in South Greenland, including Uunartoq and Herjolfsnaes. The site management office shall be established as a self-governing institution financed by grants from the municipality, the Government of Greenland, foundations and other sources of income.

A tourism consultant/site manager shall be appointed to manage this organisation. Further, one park ranger (or possibly two) shall be appointed to look after the area.

The obligations of the municipality, the Government of Greenland and the Greenland National Museum and Archives with regard to the area shall be executed and handled by the relevant authorities, but in cooperation with and under the coordination of the site manager. The site manager may also purchase services from the settlement offices—such as dissemination of informational materials, service in information centres, supervision etc.—and can apply for project funding from foundations. The site manager acts as a chair in the above-mentioned management group.

The tasks of the site manager:

- Implementation of the management plan (including follow-up activities, conducting annual evaluations and altering daily management routines as required)
- Project fundraising (obtaining funds for various initiatives, drawing up budgets, keeping accounts and writing reports)
- Management and/or consultation services for projects within the area
- Contact with the local population
- Information and communication about the World Heritage nomination project
- Monitoring, preparing and reporting on developments in the nominated World Heritage area
- Procurement of permits in connection with the execution of projects
- Membership in working group(s)
- Financial management
- Management of official visits in relation to the nominated World Heritage area (presentations, meetings and tours, possibly in cooperation with the park ranger)
- Serve as secretary for the steering group
- Chair the local management group
- Cooperate with site managers in other World Heritage areas.
The site manager shall be employed by and report to Kujalleq Municipality. Management of the World Heritage area shall be undertaken in cooperation with the Ministry of Culture in accordance with the stipulated distribution of responsibilities. The site manager appoints and manages the park ranger.

4.4 Park ranger

From 2017, a park ranger shall be hired (with the possibly of appointing a second park ranger at a later date). The tasks assigned to the park ranger may be delegated to several individuals who already undertake similar functions in the five component parts.

Tasks

- Inspect natural and cultural assets in the area
- Be alert to development trends in the area
- Advise and inform users and visitors
- Help the site manager with various mainly administrative tasks during the winter season
- Check, report on and react to breaches of the law and of the risk contingency measures
- Cleaning/waste management in the area

Qualifications

The park ranger shall be out-going, authoritative and proficient in Greenlandic, Danish and English. The park ranger shall also possess the required practical skills, such as a driving licence, knowledge of first aid and of the guidelines for navigation.
5 National legislation
This chapter explains the national legislation and the draft statutory instrument relating to the area subject to this World Heritage nomination.

5.1 The Heritage Protection Act
Greenland has statutory protection (designation) of historic assets, i.e. scheduling, listing and other cultural heritage conservation management measures, specified in dedicated legislation. This was achieved through Greenland Parliament (Inatsisartut) Act no. 11 of 19 May 2010 on Cultural Heritage Protection and Conservation (The Heritage Protection Act). The Act came into force on 1 July 2010.

The introduction to the Heritage Protection Act identifies the aims of the legislation. It states that the Act forms part of the national responsibility to protect historic assets as a cultural resource, as scientific source material and as an enduring basis for the perception, self-understanding, well-being and activities of present and future generations. The Act also acknowledges that Greenland’s cultural heritage is an important part of world history and of the history of humanity and that Greenland, through active protection of the cultural heritage in the form of designation (scheduling, listing) and other cultural heritage conservation management measures plays its part in safeguarding the global cultural heritage.

The Act allows for the Government of Greenland (Naalakkersuisut), in extraordinary cases, and with substantiated reference to general considerations for the development of society, to set aside contemplated designation, i.e. scheduling, listing and other cultural heritage conservation management measures, or to change or annul existing scheduling, listing or other cultural heritage conservation management measures.

In the event of the Government of Greenland making a decision with reference to general considerations for the development of society, it must, in conjunction with this, make a decision with respect to how to ensure responsible and proper recording of the historic asset in question, and the insight and information it contains.

The Heritage Protection Act also defines what is meant by the term historic assets, namely ancient monuments, historic buildings and historical areas, and what is understood by each of these individual components. The Act contains separate regulations for ancient monuments, historic buildings and historic areas.

Historic areas
Historic areas are defined as areas possessing a historic value.

The sub-areas that are encompassed by, and collectively constitute, the nominated World Heritage area possess a historic value and as such, under the terms of the Heritage Protection Act, can be considered as areas that can be protected with reference to the Act.

An historic area can, under the terms of the Heritage Protection Act, be protected by scheduling or other cultural heritage conservation management measures, if the conservation or protection of this
The Greenland National Museum and Archives is responsible for making the decision, subject to prior notification and consultation. This consultation must encompass the public, the owner, users with an “areal allocation” (for more on the Greenlandic concept of land allotment, also known as an “areal allocation”, see section 5.4 on the Planning Act below) or other rights of use to the area and the municipality in which the historic area is located, the Government of Greenland and other relevant parties. Furthermore, the Cultural Heritage Board, established under the Act, must be consulted separately.

Scheduling or other forms of cultural heritage conservation management of historic areas encompass the relations that exist between several historic assets or an area with which particular events are associated.

Scheduling and other cultural heritage conservation management measures have juridical consequences, some of which are common, while others differ. Scheduling and other heritage conservation management measures must be respected by all those with right of use of the historic area, regardless of when this right was established. This is a common consequence.

Scheduling means that no activities whatsoever may take place within the area apart from public access. The Greenland National Museum and Archives can grant exemption to this under very special circumstances.

Other cultural heritage conservation management means that no activities are permitted within the area that may disfigure or damage parts of the area or the area as a whole. The Greenland National Museum and Archives can grant exemption to this under very special circumstances.

The Heritage Protection Act operates accordingly with two levels of cultural heritage protection, whereby scheduling is the stronger and other cultural heritage conservation management is the weaker, in relation to the restrictions imposed on the use of the area consequent on the implemented protection.

The Government of Greenland can, on the recommendation of the Greenland National Museum and Archives, specify provisions with regard to the scheduling or other cultural heritage conservation management of historical areas, including the demarcation and use of the area, its management and access to it, with or without payment of a fee. An executive order has been created for the area in question (see section 5.2 below for more details).

The Greenland National Museum and Archives publishes decisions made with respect to scheduling or other cultural heritage conservation management, and alterations to or annulment of such measures, within 14 days of such decisions being made. At the same time, owners, users with a land allotment (areal allocation) or other rights of use of the area and the municipality in which the historical area is located, as well as other interested parties, are informed directly.

The Greenland National Museum and Archives is obliged to keep a record of historic areas that are scheduled or subject to other cultural heritage conservation management, including a statement of the provisions attached to this scheduling or other cultural heritage conservation management.

The Greenland National Museum and Archives is also obliged to monitor historic areas that are subject to scheduling or other cultural heritage conservation management, and must also carry out
maintenance of such areas within the constraints of the financial limits laid down in the national budget.

Ancient monuments
The Heritage Protection Act also contains separate chapters on the designation of ancient monuments and historic buildings. Unlike historic areas, these are only subject to either scheduling, in the case of ancient monuments, or listing, in the case of historic buildings.

Ancient monuments are understood as the physical traces of past human activity and the context in which they occurred.

Some ancient monuments are automatically protected under the Act. This applies to all ancient monuments pre-dating AD 1900, including ruins, settlements, graves and burial grounds. Isolated graves from AD 1900 or after are also automatically protected.

In addition to these automatically protected (scheduled) ancient monuments, the Greenland National Museum and Archives can, following consultation, make a decision on the scheduling of structures from 1900 or after, such as disused churchyards, cairns, fields and the stone walls associated with them, the protection of which is of significant importance due to them having a historic value.

The Government of Greenland can, on the recommendation of the Greenland National Museum and Archives, specify provisions relating to the scheduling of ancient monuments, including the criteria relating to this protection.

Scheduling means that the protected ancient monuments may not be damaged, altered or moved, either totally or in part. No activities may take place within 2 metres of ancient monuments and activities within 2–20 metres are restricted to agricultural practices and the construction of paths leading to the ancient monuments. Agricultural practices encompass superficial preparation of the soil, by harrowing to a depth of 15 cm, manuring, planting and the use of the area for grazing. The Greenland National Museum and Archives can grant consent for other agricultural practices, such as the removal of stones and the erection of information boards, installation of rubbish bins and similar equipment appropriate to public access to the ancient monuments. The Greenland National Museum and Archives can grant exemption from these provisions on the basis of special grounds.

The scheduling must be respected by all rights of use holders for the area in which the ancient monument is located, regardless of when this right was established.

As in the case of the historical areas, scheduling, alterations to scheduling and de-scheduling are all published.

As in the case of the historic areas, the Greenland National Museum and Archives is obliged to keep a record of all known scheduled ancient monuments, including details of the provisions attached to the scheduling. The Greenland National Museum and Archives is also obliged to monitor the status of scheduled ancient monuments and must also carry out maintenance of important scheduled ancient monuments within the constraints of the financial limits laid down in the national budget.

The Heritage Protection Act also contains provisions with respect to the protection of ancient monuments in conjunction with the physical planning process and preparations in advance of
earthworks. These provisions oblige the Greenland National Museum and Archives to cooperate with the planning and mineral resources authorities and other parties involved in the exploitation of the nation’s resources such that ancient monuments—and the insights and information that they contain—are secured for posterity.

Similarly, the planning and mineral resources authorities and other parties involved in the exploitation of the nation’s resources are obliged to consult the Greenland National Museum and Archives in relation to the preparation of planning material and the processing of permits that can have consequences for ancient monuments.

The planning and mineral resources authorities and other parties involved in the exploitation of the nation’s resources are obliged, in connection with the processing of permits that can have consequences for ancient monuments, to inform applicants of the contents of relevant provisions under the Heritage Protection Act.

The Heritage Protection Act also requires developers involved in major earthworks to involve the Greenland National Museum and Archives in the planning process relating to these.

In this respect, the Heritage Protection Act also contains provisions referring to archaeological inspections and investigations, including the stipulated timeframe for these and who should cover the costs.

The Greenland National Museum and Archives decides whether earthworks can be carried out to the extent that they do not affect ancient monuments, an archaeological inspection or an archaeological investigation. In making this decision, emphasis is placed on protecting ancient monuments, securing the execution of an archaeological inspection or archaeological investigation and the possibility of initiating the earthworks.

Should ancient monuments be encountered during earthworks, the developer must immediately report the discovery to the Greenland National Museum and Archives and work must be halted insofar as it affects the ancient monument. The Greenland National Museum and Archives decides whether an archaeological study should be conducted and/or whether scheduling should be initiated.

The Greenland National Museum and Archives can grant permission to other institutions and academic organisations for the excavation of ancient monuments and archaeological sites and specify the conditions for these permits.

Historic buildings
Historic buildings are understood as entire buildings, building exteriors, individual building elements and the immediate surroundings of the building to the extent that these constitute a part of the entity worthy of conservation and protection.

Buildings can only be listed according to a decision made by the Greenland National Museum and Archives following a prior hearing (consultation). The buildings in question must, by virtue of their historic or architectonic value, be of particular significance.

The Government of Greenland can, on the advice of the Greenland National Museum and Archives, specify provisions with respect to the listing of buildings, including the criteria for listing.
The listing must be respected by all holders of rights to the building, regardless of when these rights were established.

The listing of buildings implies particular obligations with regard to maintenance of the buildings and limitations with regard to the carrying out of building works with respect to the building. Accordingly, owners are obliged to maintain a listed building in a sound state in accordance with the listing. General maintenance must be carried out using the same materials, methods and colours as employed to date, and in accordance with state of preservation and appearance of the listed building at the time of listing. The Greenland National Museum and Archives can, subject to the existence of special grounds, grant an exemption in relation to the use of the same materials, methods and colours as those employed to date.

All building works relating to listed buildings require consent from the Greenland National Museum and Archives if these building works affect elements of the building subject to the listing and if the work extends beyond general maintenance. The Greenland National Museum and Archives can attach provisions to the consent.

The Greenland National Museum and Archives can, subject to an application, decide that the cost of maintenance or building work on a listed building be covered entirely or in part by the allocation specified for this purpose in the national budget.

The Greenland National Museum and Archives publishes listings, alterations to listings and de-listings within 14 days of the decision being reached. Owners, users with an areal allocation or other right of use of the building and the municipality in which the building is located, as well as other interested parties, are informed directly.

Decisions relating to listings are recorded by the Court of Greenland at the request of the Greenland National Museum and Archives. The Court of Greenland is obliged to give the Greenland National Museum and Archives notice of change of ownership.

The Greenland National Museum and Archives keeps a record of buildings that are listed, including a statement of the provisions attached to the listing.

The Greenland National Museum and Archives monitors listed buildings.

5.2. Executive order on cultural heritage protection
The executive order on cultural heritage protection for a historic area in South Greenland—which contains five areas around Qassiarsuk, Igaliku, Sissarluttoq, Qeqertaasaq, Arpatsivik and Qaqortukuloq-Upernaviaq—issu ed in pursuance of the Heritage Protection Act and upon the recommendation of the Greenland National Museum and Archives. The executive order enters into force during 2016.

The executive order defines the limits of the area. This is done through a general description in the statutory instrument and a map with coordinates annexed to it.

Further to this, the executive order also contains provisions relating to access to the area as a whole and to the individual component sub-areas and the use of these. The provisions establish public access to the area according to the restrictions laid down in the executive order, and stipulate that access to a specific area or areas may be conditional upon payment of a fee, which has the purpose
of either fully or partially covering the costs associated with establishing, running and maintaining structures erected in connection with providing access to the areas in question.

The provisions laid down in the statutory instrument are partly a repetition of the general provisions laid down in the Heritage Protection Act and partly a specification that access and use must be in accordance with the rules relating to scheduled ancient monuments and listed buildings and other cultural heritage conservation management of historical areas. Finally, it is specified that access to and use of the historical area must take place in accordance with the management plan formulated for the area.

The executive order also includes provisions relating to bans on polluting activities and a framework for the use of the vegetation and the terrain. These specify that activities connected with commercial activities, sheep farming and other forms of agriculture may continue, but must be in accordance with the aims of the statutory instrument and the general rules relating to use of the area. Further to these are provisions relating to camping, the use of open fires and anchoring, landing and periodic limitation of traffic. With respect to the latter, it is stated that rules can be specified by the municipal council in Kujalleq Municipality.

The executive order also includes provisions relating to management and monitoring. These specify that the Greenland National Museum and Archives, in consultation with the municipal council in Kujalleq Municipality, and subject to the involvement of interested parties, is to formulate a management plan for the historical area and that this plan should be regularly updated. The executive order identifies the minimum aims of the management plan and what its contents should be. This clearly delineates the plan as a management tool employed by the managing authorities to ensure that the cultural heritage values of the historical area are preserved and protected while guaranteeing public access to the area and its continued use and development.

It is also specified in the executive order that the municipal council in Kujalleq Municipality is responsible for ensuring that the order is observed.

Finally, provisions are specified with respect to sanctions in the event of contravention of the executive order and guidelines are set out in pursuance of it.

5.3 The Museum Act

The Museum Act has the aim of safeguarding Greenland's material and immaterial cultural heritage and promoting the work and cooperation of the Greenlandic museum service.

The Act defines what is understood by material and immaterial cultural heritage. Material cultural heritage comprises portable artefacts, buildings and cultural environments that provide evidence relating to particular epochs or elements in the development of society. The immaterial cultural heritage comprises practices, perceptions, expressions, knowledge and skills, as well as the tools, artefacts and cultural space associated with these, that society, groups and, in some cases, individuals identify as part of their cultural heritage.

The museum service has, in accordance with the Act, through recording, collecting, conserving, research and communication, the task of safeguarding Greenland’s cultural heritage and illuminating Greenlandic cultural and natural history, making collections accessible to the public and available for research, and disseminating the results of this research.
The Greenland National Museum and Archives has nationwide responsibility for the tasks incumbent upon the museum service. The Act specifies more detailed rules relating to the museum’s responsibilities with respect to the recording, collecting, establishing and maintaining of representative collections, historical research, communication etc.

The Museum Act also specifies rules with respect to the protection of archaeological/historic remains. It defines what is understood by national cultural and natural remains. The Act also specifies that the Greenland National Museum and Archives is permitted to classify artefacts that are not considered as national cultural or natural remains as being of particular value if these artefacts shed light on significant aspects of Greenland’s cultural history.

National cultural and natural remains belong to the Government of Greenland, while classified artefacts belong to their owner.

The Museum Act also specifies rules regarding the duty to report the discovery or acquisition of remains from the past and how these remains should be treated, including storage and submission to the authorities.

The Act also specifies rules regarding the acquisition and export of artefacts.

5.4. The Planning Act

The Planning Act (Greenland Parliament (Inatsisartut) Act no. 17 of 17 November 2010 on Planning and Land Use) regulates land use in Greenland and is therefore of major relevance for the protection and development of a World Heritage area.

The aim of the Planning Act:

§ 1. The Parliament Act has the aim of ensuring that land use takes place according to the interests of society as a whole. This aim is to be achieved by the following:

1) Protection of nature
2) A socially appropriate ratio between open land and the built environment
3) Land use that, in planning terms, promotes commercially, socially and environmentally favourable development
4) Involvement of the public in the planning of land use
5) Harmonisation of points 1–4 in decisions made within the framework of physical and economic planning

The responsibility for planning lies with the municipalities, although the Government of Greenland remains the regulatory authority and can issue national planning directives or require municipalities to formulate a specific plan. Municipal planning will, in a number of cases, be bound by other legislative or administrative provisions in pursuance of this. Of particular relevance are the Heritage Protection Act and Greenland Home Rule Executive Order no. 31 of 30 October 1991 on conservation and preservation in municipal planning.

Municipal plans are passed by the municipal council after at least six weeks of public consultation. The plans contain a primary structure and general provisions that can only be altered by the
adoption of a new amendment to the municipal plan and detailed provisions to which the municipal council can grant exemption.

Designation of a UNESCO World Heritage area can, in terms of the Planning Act, be a general provision on a municipal plan and be incorporated once nomination has taken place.

A characteristic aspect of planning in Greenland is that no one is permitted to own land and, in essence, all land is public land. A specific right of use can be granted for an area, but it is not permitted to mortgage or sell this right of use, only whatever there may be in the form of real estate on the area in question (i.e. buildings, structures and other improvements). The right of use extends only as far as is necessary to accommodate the aim of a land allotment, also known as an areal allocation. A situation can therefore arise where there are several holders of rights to the same area. For example, an area might be designated for grazing by sheep or reindeer, yet also have a small number of holiday cabins. In so far as these purposes are not mutually exclusive, for example, if the number of cabins has not risen to the point that it precludes grazing, several coexisting rights of use are unproblematic according to the Planning Act.

Areal allocations are not made for a demarcated area, but rather for the positioning of a building or other structure within a delimited plot or as close as possible to a particular geographical position. For example, should a woman wish to erect a fence around her house, this would require a separate areal allocation, regardless of whether or not the fence lies within the plot for her house. Areal allocations are only required in cases where an area is withdrawn from common usage for more than two months. A holiday cabin requires an areal allocation, while an anchor buoy beside the same cabin does not.

5.5 Other legislation

In addition to the acts mentioned above, there is further legislation and regulation relating for instance to farming and commercial activities, the environment and the fauna and flora.

This includes “Greenland Parliament (Inatsisartut) Act no. 11 of 12 November 1980 on Nature Conservation in Greenland”.

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6 The property’s values

The values in the nominated property are described below:

In the nomination, Kujataa is described as follows:

*Kujataa – a subarctic farming landscape in Greenland is located in the Kujalleq Municipality in South Greenland. The nominated property is made up of five component parts which together represent the demographic and administrative core of a farming community based on a combination of animal husbandry and marine mammal hunting established by Norse colonists in the 10th century AD and continued to this day by Inuit farmers.*

The overall landscape of pastures, fields, ruins and present-day buildings is an outstanding example of human settlement and land use in the Arctic, which is representative of a unique farming culture. Kujataa constitutes the first European settlement in the New World and the earliest introduction of farming to the Arctic. The resulting cultural landscape, shaped by grazing both in medieval and modern times, is composed of grassy slopes and willow copses and characterised by a low settlement density with isolated farmsteads surrounded by cultivated fields. The landscape of Kujataa represents exceptionally comprehensive preservation of a Northern European medieval culture. The five component parts contain the full range of remains relating to Norse Greenlandic culture dating from the 10th to the 15th century AD, with complete examples of monumental architecture as well as key sites illustrative of the adaptation of Inuit to a farming way of life from the 18th century onwards.

Values and goals

The identified values associated with the nominated property and the goals (aims and objectives) associated with these are outlined in the following table:
<table>
<thead>
<tr>
<th>Assets</th>
<th>Component elements relative to Kujataa as a World Heritage property</th>
<th>Aims and objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape values</td>
<td>Subarctic agriculture of both Norse and Inuit</td>
<td>Protect and develop farming with respect for the area’s unique character and historical significance</td>
</tr>
<tr>
<td></td>
<td>Ancient monuments</td>
<td>Present knowledge of the Norse ruins, Inuit settlements and modern farming to visitors and local users</td>
</tr>
<tr>
<td>Cultural values</td>
<td>Archaeological/historical settlements of both Norse and Inuit</td>
<td>Protection of the area’s cultural and historical values</td>
</tr>
<tr>
<td></td>
<td>Buildings</td>
<td>Safeguarding and maintenance of buildings</td>
</tr>
<tr>
<td></td>
<td>Modern farming</td>
<td>Conserve and develop modern farming culture</td>
</tr>
<tr>
<td></td>
<td>Recreational use</td>
<td>Regulation of tourist behaviour and movement in the area</td>
</tr>
<tr>
<td>Biodiversity values</td>
<td>The area’s fauna and flora</td>
<td>Safeguarding in relation to overload/overuse and climate change</td>
</tr>
<tr>
<td>Economic values</td>
<td>Modern farming</td>
<td>Ensure continued development of farming and possible new business potential</td>
</tr>
<tr>
<td></td>
<td>Tourist destination</td>
<td>Disseminate knowledge of the nominated World Heritage property both inside and outside Greenland</td>
</tr>
<tr>
<td></td>
<td>Hunting and fishing</td>
<td>Increase earnings and income in the local area in order to secure the future preservation and communication/presentation of the area</td>
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<tr>
<td></td>
<td></td>
<td>Ensure sustainable tourism, including regulation of tourist behaviour and movement in the area</td>
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<td></td>
<td></td>
<td>Inform about the World Heritage area by setting up of information points, followed by a visitor centre in Kujalleq Municipality</td>
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<tr>
<td></td>
<td></td>
<td>Sustainable development of economically beneficial activities associated with the area</td>
</tr>
<tr>
<td>Research and education values</td>
<td>Important archaeological/historical settlements</td>
<td>Ensure research opportunities in the area for both national and international benefit</td>
</tr>
<tr>
<td></td>
<td>Special living conditions</td>
<td>Communication of research findings to the local community, visitors and other interested parties</td>
</tr>
<tr>
<td></td>
<td>Agricultural research and development</td>
<td>Support the agricultural research and development at the Upernaviarsuk Agricultural Research Station</td>
</tr>
<tr>
<td></td>
<td>Climate change</td>
<td>Monitor and inform about climate changes in the area.</td>
</tr>
<tr>
<td>Other social values</td>
<td>Pride</td>
<td>Ensure that all users have an understanding of the property and its unique values and promote the population’s pride and potential with respect to the nominated World Heritage property</td>
</tr>
<tr>
<td></td>
<td>Development of the local area</td>
<td></td>
</tr>
</tbody>
</table>
7 Threats and management measures in relation to the property’s values

This chapter identifies the most significant threats considered (in September 2015) to be of possible consequence for the nominated World Heritage property. In this context, a threat is understood as a challenge that already has had, or is expected to have, consequences for the property.

The table aims to provide an overview of these threats, and the measures to counter them. Identification of the most significant threats and countermeasures has been undertaken in conjunction with the various parties involved.

<table>
<thead>
<tr>
<th>Subject:</th>
<th>Reason/threat:</th>
<th>Requires protection of these values:</th>
<th>Management measures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient monuments</td>
<td><strong>Reason</strong>: Activities associated with farming, settlement development and tourism <strong>Threat</strong>: New machinery and expansion of the cultivated area can result in damage to both excavated and unexcavated ancient monuments Inappropriate behaviour by tourists could damage the ancient monuments <strong>Reason</strong>: Climate change <strong>Threat</strong>: Warmer climate and temperature fluctuations, increased rainfall and rising sea level can cause decay of organic material, landslides and flooding that could damage the ancient monuments <strong>Reason</strong>: Possible mining in the neighbouring areas <strong>Threat</strong>: Disturbance of the farming culture</td>
<td>Cultural landscape and Norse and Inuit ruins Potentially disfiguring relative to cultural values in the nominated property</td>
<td>Regular updates on the protection (scheduling/listing) legislation etc., ground marking and legal action/prosecution in the event of transgressions See annexe: Action plan for the management of the ruins at key sites Information for sheep farmers on the subject and dialogue in advance of new initiatives The steering group for the nominated property will continually monitor developments in mining and other commercial activities, in neighbouring areas, and act as the consultative body for future prospecting licences etc.</td>
</tr>
<tr>
<td>Building listing and other cultural heritage protection</td>
<td><strong>Reason</strong>: Renovation and possible extensions <strong>Threat</strong>: Deterioration of architectural or cultural and historical values <strong>Reason</strong>: Climate change <strong>Threat</strong>: Warmer climate and temperature fluctuations, increased rainfall and rising sea level can cause decay of organic material, landslides and flooding that could damage the buildings</td>
<td>Building traditions and working methods Stone house tradition</td>
<td>Information to owners on maintenance and rules relating to building styles/traditions Municipal inspection and prosecution Monitor and inform about the climate changes in the area</td>
</tr>
</tbody>
</table>

Subject: | Reason/threat: | Requires | Management measures: |
|----------|----------------|---------|---------------------|

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<table>
<thead>
<tr>
<th>Category</th>
<th>Reason</th>
<th>Threat</th>
<th>Protection of these values</th>
</tr>
</thead>
</table>
| Farming                          | **Reason:** Increased activity  
**Threat:** Damage to and erosion of the cultural landscape  
Disturbance of the farming culture  
**Reason:** Possible mining in the neighbouring areas  
**Threat:** Disturbance of the farming culture | The modern farming  
The steering group for the nominated property will continually monitor developments in mining and other commercial activities in neighbouring areas and act as the consultative body for future prospecting licences etc. | |
| Tourism                          | **Reason:** Movement/traffic close to the ruins  
**Threat:** Damage to the ruins  
Wear and tear on vegetation  
Change of values, lack of capacity and accessibility to the five areas  
**Reason:** Existing refuse problem and increased quantities of waste due to growing influx of tourists  
**Threat:** Visible waste/refuse will deface the cultural landscape. | The cultural landscape and Norse and Inuit ruins  
Path and harbour construction and rules for movement/traffic relating to the activities in the area  
Monitoring of tourism and ongoing evaluation of the need for further regulatory initiatives etc.  
Analysis of tourist movement/traffic in the nominated property, expansion of facilities and formulation of movement/traffic plans based on the findings  
Preparation of municipally waste management plan for the two settlements and land areas | |
| Other commercial/industrial activities | **Reason:** Possible building construction associated with the development of other business activities  
**Threat:** Possible disturbance of the farming culture and overall impression | Potentially disfiguring relative to the cultural values in the nominated property | Future revision of the municipal plan in relation to the accommodation of new businesses in the component parts |
| Infrastructure                   | **Reason:** Increased motorised traffic  
Possible construction of road from Igaliku Kujalleq to the dam at Qorlortorsuaq  
**Threat:** Noise and pollution | Effects on the ancient monuments  
Disturbance of the general impression of the cultural landscape | Current improvement of transport infrastructure in the area, including progressive improvements of roads, paths, and landing facilities  
Due to increased motorised traffic on land, special restrictions near ancient monuments to be considered  
Increased traffic from the sea can be regulated by rules for navigation and the establishment or maintenance of mooring facilities/berths, enabling nuisance effect of motorboats to be minimised  
Ground marking of helipads in the |
<table>
<thead>
<tr>
<th>Subject:</th>
<th>Reason/threat:</th>
<th>Requires protection of these values:</th>
<th>Management measures:</th>
</tr>
</thead>
</table>
| **Recreational activities** | **Reason:** Increase in number of people in the area  
Use of open fires | The cultural landscape and Norse and Inuit ruins, as well as modern farming | Ground marking of camp sites in Igaliku, Qassiarsuk and Qanisartuut to improve the facilities  
Establishment of paths and ground marking of hiking routes  
Guidance of outdoor activities |
| **Settlement development** | **Reason:** Increased activities in the settlements and in relation to tourism and use of holiday homes  
Need to strengthen and reinforce the functions of the service sites (land use etc.) | The cultural landscape and the general impression of settlement life in Igaliku and Qassiarsuk | Regular updates on regulations in the nominated property and hearings in conjunction with these  
Improvement of facilities and infrastructure |
| **Health and safety measures** | **Reason:** Increased tourism in the nominated property may make it necessary to upgrade capacity and contingency | The well-being and state of health of the population and of tourists  
Protection of the environment | Possible upgrading of capacity and contingency in connection with increased number of visitors to the component parts |
| **Research activities** | **Reason:** Possible increased activities in the area  
**Threat:** Possible disturbance of the overall impression | The cultural landscape and Norse and Inuit ruins  
The general impression of settlement life in Igaliku and Qassiarsuk | A need for increased facilities, information and restrictions/regulation in the case of a major increase in activity |

### 7.1 Management measures
On the basis of the above table, the threats and management measures and initiatives mentioned are described in more detail below.

#### 7.1.1 Ancient monuments
The majority of the ancient Norse cultural landscape in the nominated property is also used today for farming. There are a total of 22 farms that are almost exclusively based on sheep husbandry.
The modern farms are distributed across the same limited areas of cultivable land that were exploited by Norse agriculture. Consequently, there is almost always a Norse ruin group in the vicinity of a modern farm.

Developments in agriculture mean that the immediate surroundings (including old homefields) of some of the Norse ruin groups are being swallowed up by field expansion and that “pressure” on the ruins and the ancient structures is generally on the increase. The problem is not, however, so great as to be insoluble in light of (Inatsisartut) Act no. 11 of 19 May 2010 on Conservation and Other Cultural Heritage Protection of Ancient Monuments (The Heritage Protection Act) and the fact that the Greenland National Museum and Archives routinely consults in connection with applications relating to cases of field expansion, extension of farm buildings (sheepcotes), construction or rerouting of roads and wheel tracks etc. The same applies to planned drainage projects in relation to bogs and wet fields with the aim of bringing these into cultivation. There are several examples of how wetland areas such as these can contain important remnants of well preserved Norse cultural remains—even without them necessarily being located in the immediate vicinity of a former Norse farm.

**Objectives**

The aim is to maintain the continued existence of ancient monuments so they can convey the story that the landscape has to tell us. In order to do this optimally, it is necessary to preserve and render visible selected ruin groups. When selecting a limited number of individual key sites, it is important to bear in mind that other—perhaps less significant—ruin groups are not forgotten. Recording and documenting all ancient monuments, large and small, is a goal in itself. The aim then becomes to provide easier access to information on each individual monument for both the local population and visiting tourists. There is already evidence that forgotten ancient monuments will languish and degenerate over the years, and receive no attention from locals, tourists or researchers.

**Possibilities and threats**

Despite the conflicting interests between conservation issues and the wish to exploit an agricultural area optimally, it is the heritage authority’s impression that there is a well founded respect for the Norse ruins among the sheep farmers of South Greenland. There are, however, examples of negligence and a lack of knowledge that have led to the legally determined distance from a ruin not being maintained during field cultivation or other activities, and that damage has occurred to the ruin as a result. It should also be added that even though all the known ruins are marked on the settlement maps for example, some of them are in such a state that only a trained eye is able to identify them in the terrain. For this reason, further ground marking of the ruins will be included in the coming action plan.

Increased pressure from tourists may have a harmful effect on a number of ancient monuments. In order to manage tourist movements optimally, specific guidelines will be formulated for the individual ruin complexes.

**Regulation of ancient monuments**

The aforementioned Heritage Protection Act offers sufficient protection to the ancient monuments.
Status for regulation

The archaeological surveys of recent years have shown that, despite a full century of archaeological activity, there are still new discoveries to be made. Each summer, archaeologists from Greenland and abroad map new ancient monuments from both the Norse and Inuit cultures. Norse ruins are, however, most prominent among the new discoveries as these are now often found in inland areas that are only rarely visited.

The utility company Nukissiorfiit is currently preparing to upgrade the hydroelectric plant at Qorlortorsuaq. The construction works will primarily take place outside the nominated property but, in one instance, transport during the construction phase will cross the component part around Igaliku Kujalleq. In 2014, the Greenland National Museum and Archives carried out a survey, and in 2015 it undertook an excavation of Norse localities for Nukissiorfiit in connection with the construction works. These excavations took place outside the nominated property and a survey within the nominated property has shown that if the existing wheel track is used, there will be no conflict between the construction work and the Heritage Protection Act. Nukissiorfiit and the Greenland National Museum and Archives are engaged in a productive dialogue with respect to this project.

Future measures (Special initiatives)

For a number of years, the Greenland National Museum and Archives has given special focus to key sites in Kujataa. For instance, the church ruin at Qaortukuloq has been carefully restored over the course of several years, and work has been carried out on the stone masonry to secure its future stability. Similarly, at Igaliku, a series of archaeological studies have been undertaken in the infield, along with a project aimed at rendering the ruins of the Norse cathedral more visible. In order to do this, the grass has been cut each year and a solution has now being devised whereby a number of sheep will be permitted to graze the area around the ruins, thereby holding the vegetation in check. In preparation for this, a fence has been erected around the ruins.

7.1.2 Listing of buildings and other cultural heritage protection

It is not permitted for old buildings, unlike other buildings, to be altered using materials of all kinds. These old structures provide evidence of the building traditions and working methods of former times. It is therefore important that all the building data from the building’s construction are preserved. Photographs and records constitute important documentation and unique sources of information and provide an indispensable foundation for future research and conservation.

It is important that the owner of a listed house or a house subject to other form of cultural heritage protection is very careful not to diminish the architectural or cultural and historical values of the building. In cases where repairs involve the replacement of one or more parts of the building, use should be made of the same materials and construction techniques as employed in the original if this contributes to maintaining the building’s authenticity and integrity. Major works on listed buildings, or buildings subject to other cultural heritage protection, should be carried out by qualified persons, and it is important to observe and record historical architectural traces.

If there is any doubt—for example, if the roof or windows are to be replaced or a partition wall is to be moved, signs mounted on the façade, painting work carried out, etc.—it is always possible to contact a building consultant/expert at the Greenland National Museum and Archives to receive
guidance in identifying the right solution. Lack of knowledge about the details of execution can lead to solutions that may be satisfactory in technical and trade terms, but which often constitute a breach with traditional solutions that are an important part of the building’s history.

Building alterations employing the wrong materials and the wrong methods and techniques can, for example, lead to the building losing value and the distinctive character that made it worthy of listing or led to it being identified as a building subject to other cultural heritage protection.

The distinctive building tradition evident in Igaliku overlaps to some degree with the general stone house construction tradition in Greenland, and the unusually large number of preserved buildings constitutes in itself a characteristic, homogeneous and valuable historical architectural entity.

Objectives
The aim is for methods, building styles, materials etc. to be preserved in the selected buildings in order to make it possible to document the construction customs and traditions of former times.

Possibilities and threats
The expected increase in the number of visitors to Igaliku will also consolidate professional service facilities in the form of more shops and places offering overnight accommodation.

An increase in visitor numbers will result in:

- Damage to and erosion of the settlement and its buildings
- Increased risk of vandalism or fires and the like
- Changes to the settlement occupants’ cultural and daily life

Furthermore, a desire for modernisations, extensions and new functions could result in increased pressure on the original building culture.

Regulation of building listing and other forms of cultural heritage protection
Both large and small changes require consent from the Greenland National Museum and Archives according to Greenland Parliament (Inatsisartut) Act no. 11 of 19 May 2010, Chapter 3, Article 22 sections 1 and 2.

Regulatory status
Igaliku currently has 57 houses that are subject to cultural heritage protection. Most of these are documented in reports in which previous use, actual use, building history and architecture are all recorded. A large part of the houses are constructed of the distinctive reddish sandstone that was used for the buildings from Norse times, and many of the houses have indications that they were built using the remains of even older buildings. The buildings in the central part of Igaliku show the historical development of architecture from the early stone house buildings to newer standard homes.

Furthermore, the central part of Igaliku is protected by the provisions of the municipal plan and the area must, in principle, be exempted from new construction. Alterations and extensions must be carried out according to special rules described in Municipal Plan Appendix no. 3, 302-D1.1 under the heading: Detailed provisions.

Future measures (special initiatives)
Development plans should be formulated for the settlements:
7.1.3 Farming

Farming is today the primary commercial activity in the component parts defined within the nominated area. Currently, this mainly comprises sheep husbandry, but there are also a few horses, small cattle herds and arable agriculture/fodder production associated with livestock rearing. The composition of the livestock has undergone changes over time. For example, the Norse Greenlanders had a greater proportion of cattle than is seen today and, taking into account climate change, new marketing forms and general developments in the farming sector, focus must constantly be maintained on relations between livestock farming and other interests in the area.

Agriculture consists primarily of hay production, for animal fodder, and a parallel cultivation of vegetables, particularly potatoes. To some extent, hay is produced on the same fields as those laid out by the Norse settlers, but field expansion has continually taken place. Work in the fields is predominantly carried out using large modern machinery.

Opportunities

Given the World Heritage nomination’s focus on the continued possibility for commercial development in the nominated property, while also protecting the cultural heritage, there are good opportunities for further development of livestock farming. The World Heritage nomination will give the area a general “lift”, both in terms of recognition from the outside world and in the minds of the local population. Likewise, for those involved in livestock farming, a number of supplementary business opportunities will emerge in the form of increased tourism (overnight accommodation, transport, catering, handicrafts etc.), increased research activities and other spin-offs.

Threats

Farming can, however, take its toll on the landscape and directly affect the historic values that should be protected within the nominated property.

Farming affects the landscape in various ways, depending on its form. The most pronounced influence is evident in the extensive grazing areas, while a more intense impact is seen on the “infield”, where hay is made and where the sheep graze more heavily during some periods. The most affected areas are those where the sheep are gathered (for lambing or slaughter). Finally, there are the fields used for growing vegetables, where the soil is under continual tillage (ploughing, harrowing and planting).

Extensive grazing areas: The primary influence on the landscape in the extensive grazing areas is generally grazing impact and animal tracks. These areas have ruins that have not yet been excavated, where special protection is required. There is a relatively large concentration of Viking Age remains, which are protected according to the Heritage Protection Act, but where extensive
grazing is not considered to be a threat to the historic buildings and areas and therefore does not require special regulation or management.

Infields: These are actual fields, most often fenced, where intensive use can conflict with conservation interests associated with the ancient monuments unless some form of regulation is applied. Particularly exposed, i.e. vulnerable, ancient monuments must be fenced in so as not to be damaged by the animals. The Greenland National Museum and Archives will regularly assess whether there are such particularly exposed ancient monuments that should be fenced in. Most ancient monuments are, however, robust in the face of animal grazing and it is implicitly understood that the individual sheep farmer with the right to use the area will minimise the risk of wear or damage to the ancient monuments during day-to-day farming activities.

Gathering areas: The areas where the animals are gathered (for lambing or slaughter) are exposed to considerable wear and erosion and should therefore not contain scheduled ancient monuments. In its areal administration (land allocation), Kujalleq Municipality will ensure that a provision is included to the effect that such an area must be delimited with respect to scheduled ancient monuments.

Vegetable fields: In areas where vegetables are grown, the soil is tilled annually, which carries the risk that any ancient monuments present may be affected. The relevant legislation on ancient monuments therefore requires that the Greenland National Museum and Archives be informed should any such ancient monuments be encountered. In the case of significant ancient monuments, these will be scheduled and cultivation of the soil will not be permitted within a 2 metre wide zone surrounding them.

Special measures
The Upernaviarsuk Agricultural Research Station is situated in World Heritage component part 5. In its teaching of agriculture students, the research station will focus on good farming practices in relation to cultivation in a World Heritage area. This can be achieved by giving the students an insight into, and understanding of, the cultural heritage of the area, and by teaching them how to safeguard this while, at the same time, farming in a sustainable manner.

Objectives
Many farmers in South Greenland already have competencies in food production. It is Kujalleq Municipality’s goal to develop these further and expand livestock farming through animal breeding and innovation.

The municipality has formulated the following objectives in its municipal plan:

- To make South Greenland Greenland’s “breadbasket” by making Narsaq the centre of food production, with INUILI (a college for nutrition, food preparation and catering in Narsaq) as the focal point
- To build a multi-slaughterhouse/food production/processing centre in Narsaq
- To develop the food production sector by supporting initiatives that encourages self-sufficiency and the use of Greenlandic products.

In relation to the nominated World Heritage property, the aim is to ensure protection of the area’s historic values, concurrent with continued development opportunities for livestock farming in the
area—today primarily sheep rearing, but with time increasingly relying on other livestock activities, such as dairy and beef farming.

**Regulation of farming**
Farming today is regulated partly through legislation relating to commercial aspects, and partly through legislation relating to land use and to building and construction (see chapter 5 on legislation).

When a field expansion is planned, a hearing must be held by the Greenland National Museum and Archives in accordance with Greenland Parliament (Inatsisartut) Act no. 11 of 19 May 2010 on Conservation and Heritage Protection of Ancient Monuments. This also applies to planned drainage projects in bogs, marshes and wet field areas where the aim is to incorporate these areas into future cultivation. There are several examples of wetland areas such as these containing important surviving pockets of well preserved Norse culture layers—even though they may not necessarily be located directly adjacent to the ruins of a Norse farm.

In principle, the Heritage Protection Act allows for a scheduled Norse monument to be de-scheduled if it causes considerable inconvenience to farming activities or stands in the way of construction/development work. However, the Greenland National Museum and Archives will only be inclined to look favourably upon such an application in cases where the ruin is poorly preserved and considered to be of inferior historic significance, and then only on condition that the ruin is studied prior to de-scheduling.

**Regulatory status (measures that are already implemented)**
As a consequence of many years of coexistence between farming and ancient monument protection, a high degree of consideration for the agricultural community has been incorporated into the protection of the cultural heritage. The most significant ruins have been fenced in so they are not exposed to unnecessary pressure from grazing animals. This is true of Igaliku (Gardar) and Qaqortukuloq (Hvalsey), which have both been enclosed with sheep fencing. It has also become established practice in farming that cultivation must take place at an appropriate distance from scheduled ruins.

**Future measures**
There are still a number of ruins with no clear demarcation between the protected monument and agriculture. In future work on the development of the nominated World Heritage property, it will be considered, in a close dialogue between sheep farmers and museum representatives, where clearer demarcation would be beneficial to both sheep farmers and visitors to the cultural heritage sites. This could take the form of fences, paths or other markers for the places that require special consideration—with respect to farming and the cultural heritage.

**7.1.4 Tourism**
There has been considerable tourism in South Greenland since the 1960s, based on the Norse era and the known ruin complexes, combined with the other cultural and natural attractions in the area. Tourists have arrived by plane from Narsarsuaq and on cruise ships with one or more ports of call in Greenland. Tourist information other services for tourists have been established and a number of
local tourism companies (Blue Ice, Taspermiut, Greenland Adventure and others) have been founded. These firms arrange tours, transport, overnight accommodation and other services. In 2015, the organisation Destination South Greenland was established, which has among its priorities the marketing and development of the World Heritage area as an attractive tourist area. Local involvement in tourism services has also developed over a number of years, primarily via sheep farmers who, from a base on their sheep farms, offer accommodation and catering and an insight into local everyday life.

**Objectives**

In its municipal plan of 2011, Kujalleq Municipality has set out the following objectives for the tourism sector in relation to the nominated World Heritage property:

Kujalleq Municipality aims to:

- Promote tourism as a commercial activity, perceived in relation to the municipality as a whole
- Promote tourism through a common branding of the unique experiences offered by our region, for example Norse history, Erik the Red, the Greenland ice sheet and the island of Uunartoq
- Preserve and render visible historic buildings and areas from both the Norse and the Inuit cultures and, within this context, apply for inscription on the UNESCO World Heritage List
- Advance the tourism concept with local food product development, in combination with tourism

Most recently, in 2015, Kujalleq Municipality developed a “Strategy for the Development of Tourism in Kujalleq Municipality 2015–2020”, which also forms the basis for the activities of Destination South Greenland. This identifies some of the tourist categories on which development will concentrate: the Ethnophile, the Authenticity Seeker, the Culture Buff and the Special Interest Enthusiast. All of these people will have a considerable interest in visiting the nominated World Heritage property in South Greenland.

The strategy emphasises the following potential elements relative to branding of the area:

- “The Arctic Vikings”: The history of the Norsemen, centred on the future UNESCO sites
- “The Inuit farmers”: Arctic farming—the only area in the Inuit culture where the land is cultivated; farm tourism and walks between farms
- “The Full Circle”: The area where humans met again after their migrating from Africa—the Inuit arriving from the northwest and the Vikings from the east.

Finally, the strategy defines two significant projects that directly relate to the nominated World Heritage property:

1. The establishment of points of information
2. The production of information boards for the nominated component parts

**Opportunities and threats**

The potential for development of tourism, based on the attractions in the nominated property, is significant. Accessibility and information can, however, be developed to attract many more tourists.
to the area. Actual tourist facilities, such as overnight accommodation (in addition to that provided by the sheep farms), places to eat and other tourist activities, which cannot be fitted into the nominated area, can fairly easily be located in neighbouring areas, such as Narsarsuaq, Narsaq or Qaqortoq, where there is a planning basis for such activities.

Increased tourism in the area can, if not regulated, have negative consequences for the very cultural heritage that must be protected. There is an inherent danger that damage can be caused by traffic and tourist movements too close to or within the ruins, erosion of the vegetation and disturbance of the farming activities, which also constitute part of the World Heritage. Moreover, increased tourism will create increased traffic (noise and pollution), as well as greater quantities of refuse within the component parts. These threats will be addressed through management initiatives.

**Regulation of tourism**

**Regulatory status (measures that are already implemented)**
The behaviour of the tourists today is mainly regulated through provisions in the legislation relating to the scheduling of ancient monuments and the general rules for activities and traffic in the natural and built environments.

**Future initiatives (special measures)**
The regulation of tourism can be divided into two phases:

1) Actual regulation of the behaviour of tourists within the nominated area today and at the time of nomination
2) Regulation prompted by subsequent increased tourism in the area

*Phase 1:* Analyses will be undertaken of the actual tourist traffic in the area and, on the basis of these and the protection requirements, general “traffic plans” will be formulated for tourists in the five component parts. These plans will be implemented via signs, information and possibly fencing. These physical measures will be carefully harmonised with conservation interests and the general appearance of the area.

*Phase 2:* Tourism in the area will be monitored and regular assessments undertaken of the need for further regulation measures or initiatives with regard to directing tourism in a particular direction in relation to the development in the World Heritage property.

**7.1.5 Mining**
Greenland has a geology that offers a wide range of valuable raw materials. South Greenland in particular contains material resources of great interest to the mining industry. In the past there have been copper mines, graphite mines, a cryolite mine and, most recently, a gold mine at Nalunaq, near Nanortalik. Currently, many prospecting licences have been issued, which could lead to mining at a number of locations in the municipality. Of these, two projects in particular are at a stage of development where, over the course of a few years, they could be realised in the form of active mines. These are at Narsaq – Kuannersuit (Kvanefjeld), and at Qaqortoq – Killavaat Alannguat.
Both projects involve the extraction of rare earth elements (REE), and also zinc and uranium at Kuannersuit.

No prospecting licences have been issued within the nominated World Heritage property.

Objectives
In 2014, Kujalleq Municipality formulated a mineral resources strategy, which states that:
- Kujalleq Municipality will be the leading municipality for the development of frameworks for the mineral resources sector as a new growth industry. Mineral resources activities must not only support the present, existing need for development, but also the future basis for development and expansion. Exploitation of non-renewable resources must contribute to a general upgrading of the qualifications of the municipality’s citizens. The requirement for a sustainable exploitation of the non-renewable resources is to ensure that the cumulative result of the mineral resources activities leaves the local area in a positive position, where economic growth continues in spite of the cessation of mineral-related activities.

Possibilities and threats
Mining is not possible within the nominated World Heritage property. The delimitation of the area has been undertaken in such a way that potential mining outside the area is unlikely to be visible from within the component parts, neither will it affect the area through pollution. Consequently, buffer zones have been incorporated in the nominated property. For example, the mountainside of Illerfissavik (Burfjell), towards Igaliku, is included within the property in order to ensure that it cannot be exploited for mining or other activities that can be unsightly relative to the cultural heritage values in Igaliku.

The two nearest projects, at Kuannersuit and at Killavaat Alannguat, are located 35 and 17 km, respectively, from the nearest component parts (1 and 3) and will not be visible from these. Environmental Impact Assessments (EIA) will be carried for both of these projects, which will document their impact on the environment. Preliminary dust diagrams for the two projects show that significant dust deposition will not be detectable within the World Heritage property.

Regulation of mining

Regulatory status (measures that are already implemented)
In Greenland, regulation of mining is laid down in the Mineral Resources Act (Greenland Parliament (Inatsisartut) Act no. 7 of 7 December 2009 on Mineral Resources and Mineral Resource Activities, and Greenland Parliament (Inatsisartut) Act no. 16 of 3 June 2015 on Revisions to Greenland Parliament Act no. 7). The act covers two main activities: prospection and extraction. In order to obtain an extraction licence, it is first necessary to undertake prospection, which also requires permission from the Ministry of Mineral Resources. In connection with the formulation of the nomination documents for this World Heritage property, a binding agreement has been entered into with the Ministry of Mineral Resources such that no prospecting licences will be granted within the nominated property and that, accordingly, mining activities cannot be initiated within the component parts.
Future initiatives (special measures)
The steering group for the nominated World Heritage property will routinely monitor developments in mining in the neighbouring areas and be involved in hearings relating to possible prospecting licences and will, in this way, ensure that the interaction between future mineral resources activities in South Greenland and the nominated World Heritage property will be able to proceed smoothly.

7.1.6 Other commercial activities
Sheep farming is the predominant commercial activity within the nominated World Heritage property, augmented in recent times by tourism. There are, however, also other business opportunities in the area. Fishing from dinghies has been practised to a minor extent—not in the form of actual commercial fishery, but for local consumption. Ammassat (capelin), which is a local delicacy, has also been fished, for use (dried) as animal fodder.

A few years ago, mussel farming was practiced in the fjord close to Qaortukulooq (Hvalsey), with the mussels being cultivated on ropes suspended in the water. There were no facilities on land associated with this production, which was landed in Qaqortoq. Work has also been undertaken in several places in South Greenland to establish manufacturing of seaweed products by gathering seaweed and drying or processing it prior to resale.

Minor cottage industries, such as the production of handicrafts, are practised on the sheep farms and the products sold primarily to tourists.

Finally, there are a number of possible production forms associated with agriculture and horticulture, such as vegetable production in glasshouses, home slaughterhouses, energy production (mini hydroelectric power stations, windmills) etc.

Objectives
In its 2011 municipal plan, Kujalleq Municipality included the following aims for business development:

Kujalleq Municipality aims to:
- Develop the food production sector by supporting initiatives that promote self-sufficiency and the use of Greenlandic products
- To support the frameworks for sustainable fishery and promote experimental fishery for new species

Possibilities and threats
There is the potential for the development of small-scale production in the settlements of Qassiarsuk and Igaliku. This potential is greatest, however, for start-ups in conjunction with existing farms. Production could take the form of greenhouse products, home slaughterhouses and a wide range of local food products. Similarly, there will be a market for products that can be sold to tourists and other visitors.

The threat in relation to the World Heritage property is that some of this production will require the construction of new buildings which, if granted an inappropriate location, could be unsightly in relation to the cultural values that must be protected.
Regulation of other commercial activities

Regulatory status (measures that are already implemented)
The physical location of new businesses in the World Heritage area can only be approved if this is provided for in the planning foundation contained in the municipal plan. The municipal plan has been formulated with respect to the nominated property such that new businesses cannot be sited in component parts that, on conservation grounds, must be exempted. In the other component parts, the establishment of new businesses must be undertaken such that this is not detrimental to cultural values.

Future measures (special initiatives)
The question of accommodating new businesses in the nominated World Heritage property will be addressed in conjunction with future revisions of the municipal plan. The next four-yearly (quadrennial) revision of the municipal plan will take place in 2016.

7.1.7 Waste management
The Public Works Department of Kujalleq Municipality is responsible for waste management in the nominated World Heritage property. In the settlements of Qassiarsuk and Igaliku there is weekly collection of household waste from individual households. Part of this is combusted at a small incineration plant and the remainder is deposited in an enclosed area. Hazardous waste and scrap iron are collected in depots before being subsequently shipped out.

Outside the settlements, sheep farmers are responsible for waste management on their individual farms. Household waste that can be composted or incinerated is dealt with locally. Hazardous waste and scrap iron are delivered to a municipal waste and recycling station, for example by shipping this waste from the individual sheep farm to one of the settlements or a larger town.

At locations within the area with many visitors (road junctions, shops and attractions) there are waste bins, which are emptied as necessary by municipal employees.

Opportunities
The World Heritage nomination will give a general “lift”, both in terms of recognition from the outside world and the local population’s awareness of the area’s values and will, as a consequence, place a greater emphasis on how the area is kept clean and waste management is undertaken.

Threats
The increased influx of tourists that is to be expected due to the World Heritage nomination will lead to greater quantities of waste in the area, which must be dealt with on a regular basis.

Objectives
Kujalleq Municipality aims to be green and sustainable. It therefore has a special focus on waste management and the municipality has formulated the following objectives in its municipal plan:

Kujalleq Municipality will strive to:
• Improve the sorting of waste—primarily at source and secondly at waste-handling stations
• Establish differentiated waste treatment through:
  a) Recycling of waste  
  b) Composting of “green” waste  
  c) Export of hazardous and “valuable” waste  
  d) Incineration of combustible waste  
  e) Deposition under controlled conditions of waste not containing substances that are harmful to the environment

In 2015, measures were taken to develop a waste plan for Kujalleq Municipality, which will address the issue of waste management for the two settlements (Qassiarsuk and Igaliku), the sheep farms and within the nominated property as a whole.

Regulation of waste management

Regulatory status (measures that are already implemented)
The Government of Greenland is responsible for general planning in the waste sector. Together with the municipalities, the government works to optimise solutions for incineration, disposal, sorting and recycling of waste. For a number of years, the government has been developing a general “waste management plan” to target its efforts. Recently, in 2014, the Government of Greenland formulated a waste management plan for the building and construction sector entitled “Anlægssektorplan for Affaldsområdet”.

The management of waste is, however, a municipal responsibility and the municipalities decide independently how to organise their own waste management systems.

The municipality develops new waste regulations as required, which includes rules for waste management and fees for users, both private citizens and businesses. The most recent waste regulations came into force on 1 January 2015.

Future initiatives
Waste management in the two settlements (Qassiarsuk and Igaliku) will be re-assessed in connection with the preparation of the municipal waste management plan in 2015–2016. The two incineration plants are old and worn out, and environmental requirements mean that a better solution for the disposal of household waste must be found. The possibility of transporting waste to a central waste incineration plant is under consideration. The layout and management of the landfill site will also be considered with a view to environmental and aesthetic improvements of conditions. It is also planned to collect scrap iron within the two areas (Qassiarsuk and Igaliku) and ship it out. Finally, a more systematic approach to the management of waste from the sheep farms will be sought.

With an increased tourist influx into the area there will be a need to install waste bins in the most popular locations. Guidelines will therefore be formulated for their design, placing and emptying, in order to avoid defacing the area.
7.1.8 Infrastructure
The nominated World Heritage property is part of a modern society in which a number of activities are dependent on traffic, and there are therefore various forms of motorised transport in operation. In and around the two settlements there is, at least by Greenlandic standards, a fairly well developed road system. Transport here is primarily by car, tractor/lorry or quad bike. In winter, weather permitting, there is also a certain amount of transport by snowmobile.

In areas with no roads, the dominant form of transport between the isolated sheep farms is by sea in dinghies and small motorboats. Mooring facilities are a precondition for this transport by water and today there are jetties, pontoons and/or tidal steps at Igaliku, Itilleq, Qassiarsuk, Upernaviarsuk and Qaqortukulooq. There are no mooring facilities at Sissarluttoq.

In addition, there are helicopter links from the two settlements to Narsarsuaq, and helicopters are also used by the health authorities for evacuation in case of accidents and serious illness. Finally, there are private and charter helicopters, and this is a mode of transport that is on the increase.

In summer, Qassiarsuk, Igaliku and Itilleq are serviced by boats connecting Narsaq and Qaqortoq with Narsarsuaq Airport. There are frequent boat connections to Qassiarsuk on a charter basis.

In the event of a greater influx of tourists, it would be necessary to establish regular ferry services.

Opportunities
Motorised transport forms are to some extent used to carry tourists, thereby providing a supplementary income for the local population. Quad bikes are hired out, sometimes with a local driver. Dinghies and boats are chartered by tourists for transport between the five component parts of the World Heritage property. Dinghies and boats require approval for passenger transport from the Maritime Authority, i.e. “p-approval”, for them to carry fee-paying passengers. The number of p-approved boats today is small, but increased tourism will provide a basis for more of these. Given increased tourism, and a consequent increase in the number of passengers, there could be the potential for regular ferry links of greater frequency and capacity than today.

Threats
The increased motorised traffic could, if it develops significantly, affect the ancient monuments directly in a physical manner and also disturb the general appearance and atmosphere of the nominated area with noise and air pollution.

Objectives
In its 2011 municipal plan, Kujalleq Municipality has the following objectives in the transport sector, relative to the World Heritage property:

Kujalleq Municipality aims to:

- Support regular boat links in the area for both passengers and goods—preferably in combination
- Maintain and develop harbour facilities in towns as well as settlements to serve fishing, freight, passenger transport and tourism
• Develop a road system so that Narsaq, Qaqortoq and Narsarsuaq Airport will, in due course, be connected
• Develop roads and tracks so that settlements and sheep farms, where possible, will be linked.

Regulation of infrastructure
Kujalleq Municipality issued a bylaw in 2014, which contains provisions regulating motorised traffic in open country. In principle, motorised traffic can use public roads according to the normal traffic regulations. Off-road transport by snowmobile and similar vehicles is only permitted in winters with sufficient snow cover, and along specially made tracks, as defined in the bylaw’s map annex. In summer, off-road use of motorised vehicles is not permitted. Sheep farmers are exempt from these provisions and can, in connection with their work, drive in open country, both off-road and off-track, but they still have to respect ancient monuments, drinking water resources etc.

Transport at sea is subject to normal shipping regulations. Passenger transport is regulated by the Maritime Authority by p-approval of boats and masters.

Helicopter transport takes place to and from helicopter landing sites (helistops) in the two settlements (Qassiarsuk and Igaliku) and, in emergencies, wherever necessary in open country.

Regulatory status (measures that are already implemented)
The provisions for motorised transport in open country came into force on 1 November 2014 and these keep motorised transport out of areas with ruins.

Future initiatives
The transport structure in the area is under continuous development and a long-term goal in the municipal plan is to connect Qassiarsuk by road (and bridge) to Narsarsuaq and Narsaq. The link to Narsarsuaq is expected to be established within the 12-year planning period, whereas establishing a road connection to Narsaq will be a considerably more difficult and extensive task. Igaliku can probably not be connected by road to Narsarsuaq, but a road connection to Qaqortoq, which could also service the area at Qaqortukuloq (Hvalsey), is a possibility that is included in the municipal plan.

Ongoing improvements are also being undertaken to mooring facilities for boats in the area. For example, an extension of the breakwater in Qassiarsuk is planned, which will provide better shelter in the harbour. At Itilleq and Igaliku there are plans to improve the tidal stairs and pontoons. At Sissarluttoq a mooring facility is to be established to enable visitors to come ashore. At Upernaviarsuk the jetty is to be upgraded with tidal stairs/a pontoon to improve access.

In Tasikuluulik (Vatnahverfi) there are good mooring facilities at Qanisartuut, but none in the northernmost part of the area at Igaliku Kujalleq. It is planned to establish mooring facilities in conjunction with the expansion of the hydroelectric power station at Qorlortorsuaq. These plans also include considerations about building a road from Igaliku Kujalleq to the dam at Qorlortorsuaq.

During construction of the roads and mooring facilities mentioned above, due consideration will be given to ancient monuments, listed buildings and buildings deemed worthy of conservation.

If there is a substantial increase in motorised traffic on land, special restrictions near the ancient remains will be taken into consideration: It may be necessary to reroute roads, impose speed limits
etc. Marine traffic can be regulated by establishing or maintaining mooring facilities, thereby avoiding any inconvenience from motorboats.

As an increase in helicopter traffic is expected, helicopter landing sites, “self-chosen sites”, will be demarcated in the areas where there are no helistops, i.e. at Qaqortukulooq (Hvalsey), Sissarluttoq and in Tasikuluulik (Vatnahverfi).

7.1.9 Recreational activities
South Greenland is—with its relatively mild climate—renowned for numerous outdoor recreational activities. Angling, hiking, camping, kayaking, hunting, boat tours, mountain biking, running etc. are all popular with the local population and visiting tourists. There are no dedicated grounds or facilities for these recreational activities. They take place all across the area—often with one of the three settlements as a point of departure (Narsarsuaq, Qassiarsuk and Igaliku).

Objectives
Kujalleq Municipality has as its objective in the recreational sector:

- The development of “green culture”—outdoor life and nature guidance in harmony with Greenlandic culture

Hence, the municipality is focusing on developing outdoor recreational activities and providing guidance to users of the natural environment. This also applies to visitors to the nominated property.

Opportunities and threats
In the event of an increase in tourism and the local population’s increased focus on outdoor recreational activities, an expansion of these activities must be expected in future years. There continues to be great potential in the area for the development of activities such as angling, hiking, camping, kayaking, hunting, boat tours, mountain biking, running etc. without these activities imposing a burden on the natural environment, agriculture or the ancient monuments. However, an increased requirement for regulation and guidance on how to use the natural environment is to be anticipated and will help to avoid conflicts between these different activities in the future.

Future initiatives (special measures)
Kujalleq Municipality has previously produced information for tourists and other visitors on “how to behave” in relation to the local population and the natural environment. In connection with increased recreational activity in the area, there will be a need for further information and possibly also regulation with respect to where these various activities can take place. As a first initiative, dedicated campsites will be established for the 2016 tourist season at Igaliku, Qassiarsuk and Qanisartuut, so that inappropriate camping near ruins and other ancient monuments is avoided and these activities do not constitute a nuisance to farming. Other outdoor activities will be regularly monitored, and if they reach a level where additional regulation is required, this will be implemented.
7.1.10 Settlement development

The nominated World Heritage property includes two settlements, Igaliku and Qassiarsuk. There have been settlements here since the first Norse settlers arrived in the area. Two of the most important sites at that time were:

- Qassiarsuk (Brattahlid), where Erik the Red’s farm and church are thought to have been located
- Igaliku (Gardar), with monumental buildings that included the bishop’s residence and the cathedral

Both localities were very significant and were re-established as settlements when farming was reintroduced to the areas by sheep farmer Otto Frederiksen and his Greenlandic wife Elisabeth in Qassiarsuk, and sheep farmer Anders Olsen and his Greenlandic wife Tuperna in Igaliku. Sheep farming continues to be the most important source of commercial income in the two settlements.

Opportunities

The two settlements are important for the services and the functions required by sheep farmers in the surrounding areas and by the settlements’ inhabitants. With nomination as a World Heritage area (component parts 1 and 2), the two settlements will be able to reinforce and develop their functions as service sites for the area. An increased interest in the area, especially from tourists, will mean an enhanced basis for these service functions, both commercial (shops, overnight accommodation, catering etc.) and public (supply of electricity and water, service buildings etc.).

Increased activity in the settlements will therefore have a positive influence on employment. It will enhance the ability of these two settlements to continue to pursue developments that enable more inhabitants to remain living there and perhaps lead to actual growth.

Threats

The increased activity associated with the nominated property could result in a requirement for new building works and new use of land in the settlements, which would then have to be undertaken with due consideration of conservation interests. Consequently, the municipal plan for Kujalleq Municipality for 2011–2022 includes plans for the two settlements that stipulate future land use and contain regulations aimed at reducing these threats as far as possible.

Objectives

The municipal plan for Kujalleq Municipality for 2011–2022 presents development perspectives for the two settlements. It states the following with regard to Igaliku:

“Igaliku was founded as a sheep farming settlement and will in the future have development potential in the sectors of sheep farming and other agricultural production. There may be further expansion of farmed land and there will obviously be product development in the food production sector. There is also considerable development potential in the tourism and recreational sectors. The main attraction for tourists is the ancient monuments dating from the Norse period and up until the founding of the settlement in the 19th century.”
There are also a number of historic remains from more recent times of considerable conservation value, including a large number of stone houses deemed worthy of conservation. The intention of the municipal plan is to prevent the construction of new buildings in the immediate vicinity and to hinder major constructional changes to the exteriors.”

It states the following with regard Qassiarsuk:

“It is evident that there is still considerable development potential for sheep farming and other agriculture in relation to the expansion of field areas and animal housing, as well as the potential for the processing of food products. Qassiarsuk’s many visible ancient monuments and its favourable location for traffic near Narsarsuaq Airport also mean that there are major opportunities in the tourism sector. This is one of the great priorities relative to having the settlement inscribed on the UNESCO World Heritage List and, in conjunction with this, upgrading tourist facilities in the settlement. Qassiarsuk also has significant development potential for housing, trade and industry and recreational areas. In the present draft municipal plan, sufficient land has been allocated to further housing and commercial building construction for the planning period.”

Regulation of settlement development
Settlement development is regulated directly in accordance with the municipal plan. This is achieved through a requirement for all building and construction activities to be given an areal allocation (land allotment). The latter must always be consistent with the municipal plan, such that development in the settlements is managed within the framework stipulated by it.

Regulatory status (measures that are already implemented)
Through work in recent years connected to the nominated World Heritage property, the municipal plan has increasingly focused on resolving the conflicts of interest that could potentially arise with respect to preserving the ancient monuments in the component parts. Regulations have therefore been implemented that secure the most important ruin areas in the two settlements. In the case of Igaliku, regulations have also been put in place relative to the entire central core of the settlement, which contains the listed stone houses and stone houses deemed worthy of conservation.

Future initiatives
Supervision of land use and management of the allocated land can always be improved upon. An increased knowledge of the legislation and the regulations for the area will enhance settlement development. Continuing efforts will therefore be made to inform the public about regulations in the area and to undertake the necessary hearings and consultations in this respect.

7.1.11 Health and safety measures
The Health Service is the responsibility of the Government of Greenland. In the settlements of Igaliku and Qassiarsuk there are settlement health clinics, where a health worker is employed for approximately 12–30 hours a week, combined with an on-call function. In Narsarsuaq there is a permanently-staffed health centre with a full-time nurse. Narsarsuaq functions as a transport hub for patients being moved to the Health Centre in Narsaq, the regional hospital in Qaqortoq or the
national hospital, Queen Ingrid Hospital, in Nuuk. If visitors suffer an accident or fall ill within the nominated World Heritage area, an assessment will be undertaken as to where the necessary treatment should take place. Transport is by boat or helicopter, depending on the severity of the case. First aid can be administered by the settlement health clinics.

In Igaliku and Qassiarsuk there is a local emergency contingency facility in the form of a small “fire station” where fire-fighting equipment is stored. This firehouse has six trained fire and rescue staff. In Narsarsuaq, the Mittarføjarfiit Airport Authority runs the fire service. There is also a sea rescue service there, which has a life boat that can be dispatched in Tunulliarfik Fjord (Skovfjord in Danish). A marine emergency contingency facility in Igalikup Kangerlua (Igaliku Fjord) operates from the fire station in Qaqortoq (see annexe 11 g).

Objectives
The Greenland Government’s “Health Strategy” includes the following objectives:

- To develop a coherent health service of a high professional quality
- To increase patient security, enhance confidence in service and treatment and ensure optimal use of resources through the development of standardised treatments for illnesses, wherever relevant
- To give citizens a rapid and early diagnosis in the event of life-threatening illnesses
- To focus on the citizen and his/her needs for services within the health service

Opportunities and threats
With increased tourism in the area, it may prove necessary to upgrade capacity and preparedness. The health service and the emergency management described above are both presently considered sufficient. An upgrade would not only improve conditions for visitors, but also for local citizens.

Future initiatives (special measures)
There is currently considerable focus in Greenland on security in relation to cruise ships. If cruise ship activity in the two fjords increases, a dedicated emergency contingency plan for accidents relating to cruise ships will have to be drawn up.

In April 2015, the Greenland Parliament (Inatsisartut) passed a resolution relating to changes in the law with respect to stricter controls on navigation in Greenlandic waters for ships carrying more than 250 passengers. These changes are expected to come into force for cruise season 2016. They include requirements with respect to the ice class, route planning and the use of pilots when navigating in certain areas. This will promote safety and reduce the risk of accidents, and the intention is also to improve the ability to effectively respond to a possible accident within a reasonable timeframe in areas located far from SAR (Search and Rescue) facilities, and where the population density is low.

The International Maritime Organisation (IMO) has, in conjunction with its member states, formulated an international set of rules for navigation in polar waters—the so-called Polar Code. The Polar Code is expected to come into force in January 2017.

The aim of the Polar Code is to elevate safety and environmental requirements on the basis of existing rules. It includes requirements that search and rescue response and contingency facilities in the navigation area should be included in each ship’s route planning.
The Polar Code contains rules for:
- Construction and rescue equipment
- Environment and pollution
- Education and training

The Polar Code applies to:
- Passenger and cargo vessels of more than 500 tonnes in international service
- Foreign ships calling at Greenlandic harbours
- Ships that sail past the Greenlandic coast without calling at Greenlandic harbours

The Polar Code does not regulate in terms of navigation safety with respect to:
- The use of pilots
- Requirements for documented route planning
- Stricter conditions with respect to navigation in areas of particular risk

7.1.12 Scientific activities
Research in Greenland is regulated by Greenland Parliament (Inatsisartut) Act no. 5 of 29 November 2013 on Research Guidance and the Granting of Research Funding. Institutions involved in research in Greenland are regulated by other national legislation and by Danish legislation.

Research Council
The Research Council is a national, independent administrative body for research consulting. It has a cross-disciplinary composition and is tasked with advising the Government of Greenland on research matters and assisting with the allocation of research funding. The council is represented by five research areas: Natural Sciences, Medical Science, Social Sciences, Humanities and Technology.

Applications for funding for research projects and licences for various activities in the natural sciences must be submitted to the relevant authorities.

The Greenland National Museum and Archives
The Greenland National Museum and Archives’ tasks are, through recording, collecting, classification, conservation, research and communication, to:
- Work to safeguard Greenland’s cultural heritage
- Illuminate Greenlandic culture and natural history
- Make the museum’s collections accessible to the public
- Make the museum’s collections available for research and disseminate the results of this research

The Greenland Institute of Natural Resources and Climate Research Centre
The goals of the Institute of Natural Resources are:
- To procure the scientific foundation for sustainable exploitation of the biological resources in and around Greenland and to safeguard the environment and biological diversity
- To provide guidance to the Government of Greenland within the institute’s field of expertise
- To make public the results of its research

The Climate Research Centre carries out research into the effects of climate change on both nature and society.
GEUS (Geological Survey of Denmark and Greenland)

GEUS advises the Greenlandic authorities on geological and geophysical matters connected with prospection and licence agreements.

In 2015, GEUS undertook fieldwork in South Greenland in selected parts of the Motzfeldt intrusion aimed at studying rare earth elements. GEUS also has stations in South Greenland to monitor the Greenland ice sheet and is a member of the international Greenland Ice Sheet Monitoring Network.

Research is undertaken in several different disciplines:

Archaeology:
The nominated World Heritage property in Kujataa has prompted academic interest since the 18th century, when the first field studies of the Norse buildings were conducted. Since then, Danish, Icelandic, Norwegian, German, American and Greenlandic scholars have carried out archaeological investigations in the area. All archaeological activity is coordinated by the Greenland National Museum and Archives as all excavation requires the museum’s approval.

In connection with construction works associated with, for example, the mining industry or the utility company Nukissiorfiit, the need often arises for rescue excavations. This requirement is laid down in the Greenland Parliament (Inatsisartut) Act no. 11 of 19 May 2010 on Conservation and Heritage Protection of Cultural Remains, and the developer is responsible for paying the economic costs of the excavation work. These investigations continue to yield new information on the cultural history of Greenland.

Building culture:
The Greenland National Museum and Archives in currently undertaking professional building analyses and compiling a record of the building culture within the nominated property. This work will result in a database, which will form the foundation for further research within this field.

Nature, environment and climate:
The Greenland Institute of Natural Resources has formulated a strategy plan for the period 2013–2017 under the title “Knowledge, Education and Skills Development in the Future Greenland” with an associated action plan. The institute has four main areas of activity: monitoring, research, consulting and communication.

The Greenland Institute of Natural Resources and the Greenland Climate Research Centre undertake a range of fieldwork activities and surveys in Greenlandic territory, both on land and at sea.

The Ministry of Fisheries, Hunting and Agriculture allocates funding to the Upernaviarsuk Agricultural Research Station via annual performance contracts with the Government of Greenland.

Social and medical sciences:
The Research Council for Medical Science of Greenland comes under the auspices of the Ministry of Health. The council administers research funds in support of projects relating to health in Greenland. All research projects are assessed by the Scientific Committee for Health Research.
8 Economic resources and implementation

There are economic funds available from the Government of Greenland, Kujalleq Municipality and the Danish Agency for Culture and Palaces, along with various foundations etc., which constitute the financial framework for the future management of the nominated property, including the preservation and optimisation of its values. Consideration is also being given to the notion of introducing admission charges for tourists wishing to visit the ruin areas, and possibly specific taxes associated with visits.

The financial framework for the preservation and management of the nominated World Heritage property in Kujataa is modest in comparison with other Nordic World Heritage properties, as the income of the municipality and the Government of Greenland is founded on a relatively small population base and the block grant from Denmark. Kujalleq Municipality is also undergoing a process of structural and political change, which in the short term provides very limited economic scope in relation to new activities.

However, a significant amount of funds have already been allocated to preserving cultural heritage and agriculture. Each year, the Government of Greenland allocates funds for safeguarding ruins, conducting excavations and other activities relating to the preservation of cultural heritage, some of which takes place in the World Heritage Site in Kujataa. Furthermore, the government funds an agricultural consultancy service that continuously advises the sheep farmers and helps preserve and develop local agriculture. Two full-time consultants, based in South Greenland, have been assigned to this task.

Each year, Kujalleq Municipality allocates funds to business development (agriculture and tourism) and to the overall areal administration (land allocation), including the protection of cultural heritage. In the future, these funds will also be used for supporting the World Heritage Site. In addition, Kujalleq Municipality has signed several short-term and long-term service contracts with Destination South Greenland regarding information, PR, and supervision in the area.

Besides these there are various financial support arrangements for agricultural production.

Below is a list of the most important items of expenditure involved in running the World Heritage area in Kujataa (a number of these expenses will only be needed if the proposed area is added to the World Heritage List).

Kujalleq Municipality funds:
- Part of the salary of a site manager, in conjunction with Destination South Greenland
- Part of the salary of a park ranger as part of the municipality’s work in the settlements, co-financed in cooperation with the Government of Greenland
- The costs of maintaining roads, bridges and paths
- Miscellaneous operating costs
- Staff travel expenses etc. associated with meetings, information and monitoring

The Ministry of Culture funds:
- Staff for management of the World Heritage property (spending only a minor part of their working hours on this); the department head also allocates resources to this task
- Evaluation monitoring of the World Heritage property
• Possible joint financing of salary costs for one or more park rangers (subject to approval by the Government of Greenland)
• Staff travel expenses etc. associated with meetings and monitoring

The Greenland National Museum and Archives funds:
• Ruin preservation in the five component parts and guidance with respect to building maintenance
• Further mapping/surveys of ruin groups
• Informational and communication materials placed at the most significant ruin complexes
• Staff travel expenses etc. associated with meetings and monitoring

The Danish Agency for Culture and Palaces funds:
• A staff member spending two working weeks on the World Heritage property in Kujataa
  • Staff travel expenses etc. associated with meetings and the like.

The Ministry of Industry, Labour and Trade funds:
• A member of the steering group for management of the World Heritage property (spending only a minor part of his/her time on this); the department head also allocates resources to this task
• Staff travel expenses etc. associated with meetings and monitoring
• Tourism initiatives

Moreover, there is cooperation with the Ministry of Infrastructure on establishing harbour facilities and pontoons and cooperation with the Ministry of Agriculture on general agricultural regulations.

In the following section, the implementation of the measures and initiatives is presented in table form for clarity:

Table 9.0 Table of proposed activities and timeframes
<table>
<thead>
<tr>
<th>Task</th>
<th>Timeframe</th>
<th>Responsibility</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launch of preliminary monitoring plan</td>
<td>2016</td>
<td>Kujalleq Municipality + Greenland National Museum and Archives (NKA)</td>
<td>ca. 2 person-years</td>
</tr>
<tr>
<td>Clearing of dumps at Igaliku and Qassiarsuk</td>
<td>2016</td>
<td>Kujalleq Municipality Technical Services Department</td>
<td>400,000 DKK (in total)</td>
</tr>
<tr>
<td>Collection of scrap iron</td>
<td>2016</td>
<td>Kujalleq Municipality Technical Services Department</td>
<td>200,000 DKK</td>
</tr>
<tr>
<td>Info boards at the five ruin complexes</td>
<td>2016</td>
<td>Greenland National Museum and Archives</td>
<td>Part of salary</td>
</tr>
<tr>
<td>Formulation of detailed monitoring plan</td>
<td>2017 (immediately after inscription on World Heritage List)</td>
<td>Site manager</td>
<td>Part of salary</td>
</tr>
<tr>
<td>Ground marking of campsites in the four areas</td>
<td>2017</td>
<td>Kujalleq Municipality Public Works Department</td>
<td>Part of salary</td>
</tr>
<tr>
<td>Temporary information centres in Narsarsuaq, Qassiarsuk and Igaliku</td>
<td>2017–18</td>
<td>Destination South Greenland Department</td>
<td>Part of service contract</td>
</tr>
<tr>
<td>Extension of path network in Igaliku and Qassiarsuk</td>
<td>2018</td>
<td>Kujalleq Municipality Public Works Department</td>
<td>Part of salary</td>
</tr>
<tr>
<td>Mapping/surveying ruin groups</td>
<td>2016–</td>
<td>Greenland National Museum and Archives</td>
<td>Part of salary</td>
</tr>
<tr>
<td>Improved access at Sissarluttoq</td>
<td>2017</td>
<td>Kujalleq Municipality</td>
<td>Construction costs</td>
</tr>
<tr>
<td>Development of information and communication materials</td>
<td>2016–</td>
<td>Greenland National Museum and Archives and Kujalleq Municipality</td>
<td>Foundation grants</td>
</tr>
<tr>
<td>Website</td>
<td>2017–18</td>
<td>Greenland National Museum and Archives and Kujalleq Municipality</td>
<td>Foundation grants</td>
</tr>
<tr>
<td>App</td>
<td>2017–18</td>
<td>Greenland National Museum and Archives and Kujalleq Municipality</td>
<td>Foundation grants</td>
</tr>
<tr>
<td>Visitor centre</td>
<td>ca. 2020</td>
<td>Steering group</td>
<td>Foundation grants</td>
</tr>
</tbody>
</table>
9 Monitoring
Regular monitoring of the status of the area, and the activities taking place within it, is an essential tool for managers of the nominated World Heritage property.

In conjunction with the application for the nomination of the World Heritage property Kujataa, monitoring of the five component parts will be introduced already in 2016 to generate reference data prior to possible inscription of the area as a World Heritage Site.

The monitoring has the following general objectives:
- To document the values of the property, according to which it is inscribed, and subsequently to maintain these
- To constitute a basis for the ongoing management of the area
- To provide data for periodic reports to UNESCO

Furthermore, UNESCO recommends that the monitoring parameters selected should be:
- Significant, i.e. indicators will register changes of considerable significance for the area
- Sensitive, i.e. indicators will swiftly register changes in status
- Repeatable, i.e. observation and quantification of the indicators is executable in the same way year after year
- Readily quantifiable, i.e. measurements will be executable by people without specialist training using basic equipment and techniques
- Economical, both in terms of time and equipment

Monitoring can be divided into two main aspects: monitoring of physical conditions (nature and culture) and monitoring of human activities (visitors etc.).

Monitoring on physical conditions (nature and culture)

Ancient monuments
The Greenland National Museum and Archives has overall responsibility for the ancient monuments and their present supervision. This stewardship will be further intensified with nomination for, and possible inscription on, the World Heritage List. In cooperation with the local site management, a dedicated monitoring programme will be developed for the ancient monuments using photo documentation and descriptions of changes and potential threats. The same applies to buildings, both the listed buildings in Qassiarsuk and Tasikuluulik (Vatnahverfi), and the designated buildings in Igaliku.

The agricultural landscape
As farming is a principal element in the nominated World Heritage property, regular monitoring of agricultural developments must be undertaken—partly in relation to changes in the landscape involving either the creation or abandonment of fields, and partly in relation to the use of individual fields. There must also be monitoring of the production (number of animals, slaughtering, hay and silage production, vegetables, cultivation of potatoes and so on) and use of labour in the area. This will both document the current farming culture and form the basis for potential measures in relation to farming developments in the area. Monitoring will take place in close cooperation with the Sheep Farmers’ Association SPS, the Agricultural Consulting Services and the municipality’s Business and Labour Department.
Nature
The natural landscape within the area demarcated for nomination for World Heritage inscription is
important in relation to the overall appearance and impression of the area. This will therefore also
be monitored, with a focus on wear and erosion, in the case of increased tourism, and in relation to
climate change. A monitoring programme will be developed in cooperation between the local site

Monitoring human activities (visitors etc.)
The number of visitors to the area is an indication of its attractiveness, yet it also represents a threat
to its values in the form of erosion and damage. The number and behaviour of visitors is also of
significance for the local population both as a threat and a potential source of income. Hence,
routine monitoring of relations between the local population and visitors to the area is necessary and
will be undertaken.

Data from this monitoring will be used to facilitate the development of tourism products within the
area and to identify possible capacity problems, for example in relation to the interaction with the
local population. Monitoring will therefore take place in close cooperation with Destination South
Greenland, Visit Greenland and the Business and Employment Department of Kujalleq
Municipality.

Monitoring of visitors will cover the following general parameters:
- Number of visitors to each of the five component parts (age, nationality, segment etc.)
- Number of overnight stays in the actual component parts in youth hostels, sheep farms,
settlement hotels and campsites (economy, number of days, accommodation)
- Turnover in shops and with sheep farmers (souvenirs etc.)
- The qualitative experiences of visitors (history, objects/artefacts, the big picture, service)
- The number of passengers on boats and helicopters travelling to the area (locals, visitors)
- Cruise ships docking in the area (visitors)
- The local population’s experiences of visitors (interviews)

Responsibility
One of the site manager’s tasks will be to coordinate the monitoring as specified above. This means
that the site manager will involve the aforementioned parties in the work and be responsible for
reporting the collated results to the steering group and, ultimately, to UNESCO.

Table 9.1 Monitoring schema for the various categories

<table>
<thead>
<tr>
<th>Focus</th>
<th>Indicator</th>
<th>Method</th>
<th>Evaluation</th>
<th>Frequency</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Norse Greenlandic sites and ruins</strong></td>
<td>Number of sites and ruins</td>
<td>Visual inspection and recording number of sites and ruins</td>
<td>Comparison of site/ruin numbers with previous records</td>
<td>Every four years for each component part*</td>
<td>Greenland National Museum and Archives</td>
</tr>
<tr>
<td><strong>Norse site/ruin preservation</strong></td>
<td>Qualitative assessment of the state of sites/ruins</td>
<td>Visual inspection, photo documentation, digital survey etc.</td>
<td>Comparison of sites/ruin preservation with previous archival imagery, restoration of ruins if necessary</td>
<td>Every four years for each component part</td>
<td>Greenland National Museum and Archives, park ranger</td>
</tr>
<tr>
<td><strong>Site visibility and presentation</strong></td>
<td>Are the sites/ruins clearly visible and accessible?</td>
<td>Visual inspection and clearing of possible vegetation and obstacles that obstruct/impair site/ruin view/impression</td>
<td>Assessment of the individual sites/ruins to ensure their unimpaired visibility and accessibility</td>
<td>Every four years for each component part</td>
<td>Greenland National Museum and Archives, park ranger</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Focus</strong></th>
<th><strong>Indicator</strong></th>
<th><strong>Method</strong></th>
<th><strong>Evaluation</strong></th>
<th><strong>Frequency</strong></th>
<th><strong>Responsible</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cultural landscape</strong> (Norse ruins, Inuit archaeology, historical archaeology and farming)</td>
<td>Preservation and state of the cultural landscape</td>
<td>Visual inspection of sites/farming areas to ensure that the cultural landscapes are not being degraded by tourism, farming or other activities</td>
<td>Qualitative comparison with previous records (archival, visual etc.) on the preservation of the cultural landscapes</td>
<td>Every five years for each component part</td>
<td>Greenland National Museum and Archives, park ranger</td>
</tr>
<tr>
<td></td>
<td>Potential conflicts between cultural heritage, tourism, farming, industry etc.</td>
<td>Local actors (park ranger, farmers, and tourism operators) are encouraged to continually report any conflicts.</td>
<td>Communication with local caretakers, stakeholders and farmers to ensure that heritage site protection and legislation is observed</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential conflicts are resolved through site/ruin restoration, management or marking, education or enforcing of existing national heritage legislation.</td>
<td>Comparison with existing records of cultural landscape preservation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of buildings in need of restoration</strong></td>
<td>Provides a general picture of the site and whether the overall condition is improving or worsening</td>
<td>State of conservation value analysis</td>
<td>Follow-up on Action Plan for each building</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives</td>
</tr>
<tr>
<td><strong>Numbers:</strong> 19</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Number of restored buildings</strong></td>
<td>Provides a picture of ongoing efforts to enhance the state of the site</td>
<td>Reviewing the list of protected buildings in the nominated area</td>
<td>Updating list of protected buildings in the nominated area</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives</td>
</tr>
<tr>
<td><strong>Numbers:</strong> 11 renovated but not restored</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Changes to the buildings (architectural whole)</strong></td>
<td>Provides a picture of the site whether the architectural whole is changing</td>
<td>Review of recent condition registration of the building</td>
<td>Conservation value analysis (review of the buildings and registration)</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives</td>
</tr>
<tr>
<td><strong>Current number:</strong> 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of buildings that have an operation</strong></td>
<td>Monitoring that building operation and</td>
<td>Municipal operating and maintenance plan</td>
<td>Reviewing the latest updated operating and</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives</td>
</tr>
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</tr>
</tbody>
</table>
operating and maintenance plan

Number: 57, there are guidelines for maintenance. Action Plan is to be made

<table>
<thead>
<tr>
<th>Focus</th>
<th>Indicator</th>
<th>Method</th>
<th>Evaluation</th>
<th>Frequency</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of empty buildings within the nominated area</td>
<td>Monitors whether buildings are at risk of interruption for a longer time</td>
<td>Review of ownership in the municipality population register</td>
<td>Updating building ownership register</td>
<td>Annually</td>
<td>Greenland National Museum and Archives/ Kujalleq Municipality</td>
</tr>
<tr>
<td>Numbers: 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of privately owned buildings</td>
<td>Forms the basis for assessing whether privately owned buildings are decline</td>
<td>Reviewing the list of protected buildings in the nominated area</td>
<td>Updating list of protected buildings and ownership in the nominated area</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives/ Kujalleq Municipality</td>
</tr>
<tr>
<td>Numbers: 47</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Number of municipality owned buildings</td>
<td>Forms the basis for assessing whether municipally-owned buildings are in decline or in the increase</td>
<td>Reviewing the list of municipally-owned buildings in the nominated area</td>
<td>Updating list of municipally-owned buildings in the nominated area</td>
<td>Every four years</td>
<td>Greenland National Museum and Archives/ Kujalleq Municipality</td>
</tr>
<tr>
<td>Numbers: 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of residents within the nominated area</td>
<td>Monitors settlement increase or decrease</td>
<td>Review of statistics on population numbers in the nominated area</td>
<td>Updating list of number of occupants in the nominated area</td>
<td>Annually</td>
<td>Greenland National Museum and Archives/ Kujalleq Municipality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature and environment</td>
<td>Climate records</td>
<td>Collection of climate records from Narsarsuaq Airports and Qaqortoq Comparison of vegetation development of tourist sites Growth of exotic trees as an indicator for climate change</td>
<td>Long term climatic data is available for +50 years for both Narsarsuaq and Qaqortoq The grazing monitoring programme, ongoing since the 1980’s, will be a reference for the vegetation development of tourist sites.</td>
<td>Ongoing for climate data, and every 3–5 years for vegetation analysis.</td>
<td>Greenland National Museum and Archives/ Kujalleq Municipality (Dept. of Nature &amp; Environment)</td>
</tr>
<tr>
<td><strong>Farming</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Indicator</strong></td>
<td><strong>Method</strong></td>
<td><strong>Evaluation</strong></td>
<td><strong>Frequency</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td>Development of contemporary farming</td>
<td>Tourism</td>
<td>No. of visitors to each of the five areas of the property (age, nationality, market)</td>
<td>Collection of statistics from relevant persons and companies</td>
<td>Compare tourism development tendencies within the properties</td>
<td>Annually</td>
</tr>
</tbody>
</table>

No. and names of existing farms

No. of farm animals (sheep, horses, cattle)

Fields for fodder production, no. of hectares

Areas planted with trees (name of plantations), no. of hectares

No. of slaughtered sheep and lambs/year

No. of slaughtered heads of cattle/year

Average slaughter weight of lambs within the farms, kg/lamb

Winter fodder production (silage, hay), as Scandinavian fodder units/hectare

No. of heavy machinery on the farms (tractors and ditch diggers etc.)

Already available statistics to be used.

Numbers will be obtained by the Greenland Agricultural Advisory Service/Nunalerinermut Siunnersorteqarfik, as a part of their annual statistical compilations

The obtained numbers will be compared with a year-by-year analysis, having a long record of numbers stretching back +50 years.
* Excavations are also conducted in connection with specific scientific projects and the development of farming or industry.

The numbers will continually be updated by Kujalleq Municipality.

Should the area be granted World Heritage status, it will be the site manager’s responsibility to develop and coordinate the schema.
10 Communication

Proposals for communication initiatives:

1. Website at www.kujataa.gl – text, sound, photos and films
2. Digital communication in various languages – dedicated app for the nominated World Heritage property Kujataa – downloadable free of charge!
3. Publication: *Kujataa – a subarctic farming landscape in Greenland*
4. Annual cultural heritage days with the theme “World Heritage”, in early spring, before lambing
5. Communication agreement with the media: regular spots on TV and radio programmes
6. Digital educational materials aimed at GUX (college education) and primary and secondary schools, focus on cultural heritage
7. Signs in several languages for each World Heritage component part
8. Guidelines for cruise ships
9. Informational film (by World Heritage offices)
10. World Heritage routes in the landscape (map)
11. Exhibitions

By World Heritage offices:

1. Permanent and themed exhibitions, shop (web shop) and café
2. Opening hours, annually/seasonally adjusted
3. Future arrangements (guest speakers)
4. Special arrangements for children and young people

Draft communication plan—further ideas

The most important entry port to the World Heritage property is the airport at Narsarsuaq. When a visitor arrives on a plane from Europe, Iceland or Nuuk, they are already almost within the nominated World Heritage property. An information board providing an introduction to the World Heritage area will be displayed in the airport.

Information boards that introduce visitors to the nominated World Heritage area will also be erected in the towns of Narsaq and Qaqortoq. The coastal ferry from Nuuk calls at these towns and brings tourists and visitors from other parts of the country.

In each of the five component parts, information boards will be placed by the ports of call, providing an introduction to the individual component part.

Component part 1: Here the information board will be placed in the small harbour area at Qassiarsuk.

Component part 2: Information boards will be placed at both ports of call in the component part: Itilleq in the northern part and in the small harbour in the settlement of Igaliku.

Component part 3: There is currently no jetty here. It has been proposed that an information board be placed on the slope facing Igaliku Fjord.
**Component part 4:** Information boards for the area will be displayed near the moorings in Igaliku Kujalleq by the small quay in Qanisartuut.

**Component part 5:** It has been proposed that information boards be displayed at Qaqortukulooq (focusing on the well preserved Norse ruins) and at Upernaviarsuk (focusing on the Agricultural Research and Training Centre and modern Greenlandic sheep farming). Upernaviarsuk will also include information about the World Heritage property in its education of sheep farmers, including how, as a sheep farmer, to cultivate an awareness of ancient monuments and historic remains and treat them with due respect. At Upernaviarsuk there will also be informational materials (posters) conveying key facts about the World Heritage area.

**Information centres**

**Component part 1:**
A small information centre will be housed in “Otto Frederiksen’s house”, i.e. in the listed building that was built in 1934 by the first Greenlandic sheep farming family, which settled here in 1924. In one of the rooms the Norse history of the site will be told in an exhibition displaying original artefacts found during the archaeological excavation in 1932. Another room will tell the story of the settlement and the area after 1924.

**Component part 2:**
In the former schoolroom, situated in the settlement’s small church, a temporary exhibition will be set up, providing information on the history of the Norse episcopal residence and the history of the settlement since Tuperna and Anders Olsen settled here in 1783. Over the long term, the plan is to remodel a former sheep barn in the eastern part of the settlement and transform it into an information centre. This will provide space for an exhibition of original artefacts from the archaeological excavations at the site and findings relating to its more recent history.

**Component part 4:**
In Igaliku Kujalleq, in the northern part of the area, a small information centre will be established in one of the buildings dating from the period when as many as 30–40 people lived in the settlement. Several of these buildings stand unused. Information will be provided on the history of Tasikuluulik and Igaliku Kujalleq during the Norse period, as well as during the period after 1934, when the first move from Igaliku to Igaliku Kujalleq took place. In the south-western part, in Qanisartuut, it is possible to visit a well maintained sheep farm housed in a listed building, once inhabited by Cecilie and Henning Lund, who were pioneers in this part of Tasikuluulik in the late 1940s. Today, descendants of the couple live in a modern sheep farm located next to the listed sheep farm.

**Component part 5:**
The Upernaviarsuk Agricultural Research Station plays an important role in educating the general public about the nominated World Heritage property. In its teaching of agriculture students, the research station will focus on how good farming practices can be combined with protecting the cultural heritage.

At Upernaviarsuk it is possible for visitors to visit the research station’s nursery with its various beds, cold frames and greenhouses. They can also visit the old sheep barns from the 1950s and gain insights into the design and layout of modern structures for sheltering sheep.
Efforts will also be made at Upernaviarsuk to make the ruins of Anders Olsen’s house accessible to visitors, including the erection of an information board.

**Communication and presentation via the use of apps**

Apps will be developed for the archaeological and key historic sites and used as guides on location at Qassiarsuk (Component part 1), Igaliku (Component part 2), Sissarluttoq (Component part 3), Tasikuluulik (Component part 4) as well as Qaqortukulooq and Upernaviarsuk (Component part 5).

These apps will contain overviews and detailed plans for the most significant Norse ruin groups and provide information on each individual ruin. It will be possible to view selected photos from the early excavations of important sites and a selection of photos of the artefacts excavated from the individual ruins.
11 Annexes

a) Legislative base (laws, executive orders etc.)
   i. The Heritage Protection Act
   ii. The Museum act
   iii. Executive order on cultural heritage protection
   iv. The Planning Act

b) Municipal plan for Igaliku and municipal plan for Qassiarsuk

The above plans and legislation are only available in Greenlandic or Danish, and therefore have not been attached here. There are, however, descriptions of the relevant sections in the nomination material.

c) Action plan for the preservation and maintenance of the ruins at key sites

This annexe to the management plan is in English and can be found in this publication as Annexe 2.

d) List of historic buildings and their owners

This list is only available in Danish and therefore has not been attached here.

e) Action plan for listing of buildings and other cultural heritage protection
   i. Action plan for Igaliku houses, Area D1
   ii. Action plan for Otto Frederiksen’s house B-316 and his two farrowing barns
   iii. Action plan for Henning and Cecilie Lund’s house B-345 in Qanisartuut

Annexe e) to the management plan is in Danish. It can, nevertheless, be found in this publication as Annexe 3 as it illustrates how the historic houses in the nominated areas will be refurbished, maintained and preserved.

f) Tourism strategy (Kujalleq Municipality)

The tourism strategy is only available in Danish, and therefore has not been attached here. There are, however, descriptions of the relevant sections in the nomination material.

g) Contact information
Annexe g)

Contact information

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Greenland National Museum and Archives
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Ministry of Education, Culture, Research and Church
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Annexe 2: Action plan for the preservation and maintenance of the ruins at key sites
Component part 1

There are 37 known groups of Norse ruins in Sub-area 1 and ten working farms. The greatest concentration of both ruins and modern farms is on the Qassiarsuk plain, which is taken to be Eric the Red's Brattahlíð and thereby seen as the very starting point for the Norse colonisation of Greenland. Qassiarsuk is also the place where the Greenlandic sheep-farming pioneer Otto Frederiksen came to live. After the establishment of the first modern farm by Frederiksen in 1924, ten years would elapse before the question of protection of the ruins and ancient monuments came up for debate by members of the provincial council of South Greenland in 1934 (Beretninger og Kundgørelser vedrørende Grønlands Styrelse nr. 7/1934: 358). In 1937, this resulted in a concrete ruin protection initiative in the form of Regulativ angående Fredlysning af Fortidsminder i Grønland – Directive on the scheduling of ancient monuments in Greenland – which included a ban on all removal of stones from the Norse ruins (Beretninger og Kundgørelser vedrørende Grønlands Styrelse nr. 3/1937: 1106). In the intervening period, it must be assumed that stone was taken from the Norse ruins to build the first sheep cots. On the northern part of the Qassiarsuk plain are several remains of Inuit winter houses, built of stone and turf and presumably dating from the 17th and 18th centuries, for which stone was similarly taken from the nearby Norse ruins.

The Danish captain Gustav Holm established the basis for a systematic description of the Norse ruins in Greenland in 1880; his work was followed up by Captain Daniel Bruun in 1894. Bruun introduced a numbering system for identification of the individual ruin groups, which has been used ever since: E-numbers identify ruin groups in the Eastern Settlement and W-numbers ruin groups in the Western Settlement. Bruun also undertook several archaeological investigations during his visit to South Greenland in 1894.

The most extensive archaeological investigations in Sub-area 1 were carried out by the National Museum of Denmark on ruin groups E29a and E29 in the northern part of the Qassiarsuk plain in 1932 (Nørlund & Stenberger 1932). Between 1961 and 64, the National Museum of Denmark excavated the supposed “Tjodhilde's Church” and associated churchyard (Krogh 1982). In 1997-98 and 2001, Qaqortoq Museum undertook an excavation of a bog containing well-preserved midden layers next to ruin group E34 in Qorlortup Itinnera, c. 7 km NNW of Qassiarsuk, which was threatened by field drainage work (Nyegaard 2015). Minor investigations of the churchyards associated with two small churches at ruin groups E33 and E34 were undertaken by Jette Arneborg for the National Museum of Denmark in 2001, in conjunction with Greenland National Museum. Finally, a small area of the midden associated with the house remains at the North Farm (E29a) in Qassiarsuk was excavated in 2005 and 2006 (Edvardson 2007).

In 1976-77, a joint Nordic field survey and recording project was undertaken, covering all the ruin groups in and around the valley of Qorlortup Itinnera, north of Qassiarsuk (Krogh 1982). In 1999 and 2000, all the Norse ruin groups in the lowland area between the two fjords of Tunulliarfik and Sermilik were visited and subsequently described (Guldager et al. 2002).

Hans Kapel (1997) assessed the ruins in Qassiarsuk for Greenland National Museum and recommended the restoration and maintenance initiatives on which this action plan is, in part, based. Subsequently, Narsaq Museum, in conjunction with Kapel, implemented some of the proposed initiatives in the central ruin area on the northern part of Qassiarsuk plain, in advance of the celebration of the “Leif Ericsson anniversary” in 2000, i.e. a millennium since the arrival of Christianity in Greenland and the voyages to “Vinland” (Kapel 1999). A GPS-based survey of the ruins on the northern part of the Qassiarsuk plain was undertaken in 2013 by surveyor Niels Christian Clemmensen of the Danish Agency for Culture, in conjunction with Hans Kapel (fig. 2). Finally, in 2013 Hans Kapel and Georg Nyegaard assessed all the ruins on the northern part of the...
Qassiarsuk plain for Greenland National Museum in connection with the production of this management plan for the area (Nyegaard 2014).

**Qassiarsuk**

![Diagram of Qassiarsuk plain](image)

Fig. 1. Overview of the ruin groups on the Qassiarsuk plain.

The overview presented in figure 1 shows the distribution of the Norse ruin groups on the Qassiarsuk plain and was produced in conjunction with the excavations undertaken in 1932. The two northernmost ruin groups, E29a and E29, which constitute the central part of the Norse settlement, and the Inuit house sites (FM 61V3-III-012), located in association with the ruins in ruin group E29a, constitute the primary destination for the many visitors to Qassiarsuk each year. The ruin area has significant value as a tourist attraction, but greater efforts should be made to enable the thousands of visitors to Qassiarsuk in the future to get the most out of their visit and experience the place for what it is – a world-class cultural heritage landmark. The sub-area is characterised to some extent by attrition and dilapidation and the individual ruins show the effects of a lack of regular maintenance. This situation reflects several circumstances:

- Conflicts between conservation interests and a desire to exploit a potential agricultural area optimally. The situation has, however, improved in recent years, with the settlement area, including the ruin groups, no longer being used for sheep grazing, as was the case previously.
- Inadvertent negligence and lack of knowledge. Even though all the known ruins are plotted in on the settlement map, a number of them are in such a condition that only a trained eye can detect them in the terrain.
- Lack of planning of tourism activities. Visitor numbers such as those experienced in the sub-area require regular maintenance measures. Similarly, visitors should be guided around the area along prescribed routes that are regularly maintained, if degradation and damage to the ancient monuments is to be avoided.
Future management and the regular maintenance initiatives

The recommendations for restoration and maintenance of the ruins in Qassiarsuk presented in the following will be able to rectify many years of neglect. The work involved is extensive and will continue over several years. If exploited in an appropriate way the work will, in itself, have considerable PR value. Given an increased influx of tourists, it is essential that future regular maintenance and tidying up is subject to a strict plan and that a decision is made about who in the local area is responsible for undertaking the work, which must be carried out in close collaboration with Greenland National Museum. For tourist attractions of this nature and extent, it will be imperative to appoint a key person or persons with the tasks of keeping the ruins free of vegetation, removing rubbish, regularly checking the state of preservation of the ancient monuments and otherwise helping the public in every respect.

Fig. 2. GPS-based survey of ruin groups E29a and E29 in Qassiarsuk.

RUIN GROUP E29A (NORTH FARM)

The central ruin group comprises ruin nos. 1-6 and 59 and constitutes the main attraction for most visitors. Some of the ruins were restored by Narsaq Museum in 1999 and paths were established
between several of the structures (Kapel 1999). However, these initiatives were not followed up and most of the ruins appear neglected today. In the following, suggestions will be made as to how and by which means the public's experience of this core area can be enhanced.

Ruin nos. 7-16 and 61 lie scattered and are not particularly conspicuous. Several of them are also difficult to access as they lie in cultivated fields. The recommendations and maintenance proposals made here therefore aim, first and foremost, to secure these ancient monuments against damage from everyday agricultural activities.

**Ruin no. 1: The large church from c. AD 1300**

*The church ruin:* This appears relatively intact (figs. 3-4). Its interior was fully excavated in 1932. When it was restored in 1999, the grass turf was removed from the interior of the church to make way for a c. 15 cm thick levelling layer of sterile pebble gravel. The aim of this was partly to enhance the visual impression of the church interior and partly to reduce the work required in future maintenance. Only a few years elapsed, however, before the church interior was once again overgrown (fig. 4). Instead of rendering maintenance easier, this gravel layer actually makes it more difficult and its removal is therefore recommended. A thin layer of soil should be laid instead and sown with grass. In conjunction with the removal of the turf in 1999, fallen stones from the walls were put back into place. The plans and photos from the 1932 excavation were used as a basis. This work needs to be regularly followed up though as stones continue to fall from the walls, possibly due to visitors' climbing on the masonry.

*The churchyard:* The stone markers installed by archaeologist Poul Nørlund as replacements for the original gravestones, which were taken up in 1932 and sent to the Danish National Museum in Copenhagen, had become covered by grass. They were exposed during the restoration work in 1999 and each highlighted with a c. 20 cm vegetation-free zone, covered with coarse beach gravel. It is recommended that the large gravestone of reddish Igaliku sandstone from the churchyard (fig. 5), which was later repatriated to Greenland National Museum, be brought back and either erected in its original position or exhibited in a small visitor centre together with a selection of finds from the 1932 excavation. It is also suggested that the stone kerb associated with “Ingibjörk's Grave” (fig. 6), which was also taken up in 1932, be similarly returned to its original position or exhibited in an on-site visitor centre. The stone kerb has also been repatriated to Greenland National Museum from the Danish National Museum and is presently on loan at Qaqortoq Museum.

*The churchyard wall:* The surrounding churchyard wall underwent very extensive repairs during the restoration work in 1999 (Kapel 1999). Fallen and displaced stones were put back into place. Irregularities and gaps in the wall – along its entire length – were then levelled out with grass turves and finally the wall masonry was sealed uppermost with a solid layer of turf. There is a regular need to follow up on the restoration work carried out in 1999.

**Recommended action for other future initiatives:** A metal grid or platform, which was set up for visitors to the west of the church and churchyard in connection with maintenance work and tidying up in 1999, should be removed. There is a major requirement for regular cutting of the vigorous grass vegetation in and around ruin no. 1 during the summer period. A reconstruction of an Inuit turf house, built in conjunction with the millennium jubilee in 2000, is located only a few metres southeast of the churchyard (figs. 3 and 7). The turf-walled house lacks maintenance and appears devoid of historical authenticity. The building is out of place and it is recommended that it be demolished and moved to another location.
Fig. 3. Church and churchyard (ruin no. 1).

Fig. 4. The church site (ruin no. 1) seen looking west in 2006.

Fig. 5. Gravestone of Igaliku sandstone.

Fig. 6. The stone kerb of "Ingibjörk's Grave".

Fig. 7. Reconstruction of an Inuit winter house by the ruin of the large church at Qassiarsuk. Seen looking northwest.
**Ruin no. 2: The dwelling complex**

*Status:* The sturdy stone- and turf-built walls show the effects of wear and erosion, which means that the courses of the walls and the room divisions appear diffuse. Most of the serious damage is not new and dates back to the sheep grazing of former times. The ground plan is confusing and difficult for visitors to comprehend. In the dwelling's banqueting hall – room section A, which is best preserved, are numerous displaced stone blocks. The other structures in the dwelling were not fully understood in the investigations in 1932. One of the complicated aspects of the complex relates to the many phases it represents.

*Recommended action:* Restoration of this ruin complex would be very extensive and demanding of resources as the operation would require prior archaeological trial investigations in order to establish the extent of the collapse etc. Loose building stones and collapsed wall material should be put back in place to the extent that it is possible to return them confidently to their original positions. Everything else should be removed from the site. It will probably be necessary to reconstruct part of the southern wall façade in order to restore the building's stability. Gaps and worn areas in the other walls should be cut back and repaired with fresh grass turves. In the immediate instance, there is a need to establish a system for regular cutting of the grass during the summer period.

**Ruin nos. 3-4: Warehouses or storage buildings**

*Status:* Marking out of the walls with a c. 50 cm high wall of grass turves was established in connection with the maintenance initiatives and tidying up carried out in 1999.

*Recommended action:* The two ruins have no maintenance requirements apart from regular cutting of the grass.

**Ruin no. 5: Byre and hay-barn complex**

*Status:* The ruin complex, which was totally excavated in 1932, is badly affected by wear. The need for maintenance is most obvious in room section A, where there are many scattered, fallen stones. Section B (fig. 8) is also characterised by fallen wall material, which makes it difficult to ascertain the extent of the room and the entrance to the south. Section C (fig. 9) is relatively intact apart from some caving in by the end wall. The entrance passage to sections D and E has been partially levelled, and a few stones lie scattered on the floor surface.

*Recommended action:* Restoration of the complex must be based on photos and other records from the excavation in 1932. There is a need for extensive clearance and tidying up across the entire interior of the complex. As in the case of ruin no. 2, the work will include repairing damage to the walls and clearance of the floor surfaces. Furthermore, the individual stone stall dividers should be returned to their original positions to the extent that these can be securely established. In the case of section D, the entrance should be exposed and stabilised. There is also a requirement for regular grass cutting.

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*Fig. 8. Room B in the byre structure (ruin no. 5).*

*Fig. 9. Room C in the byre structure (ruin no. 5).*
Ruin no. 6: Possible byre
Status: This building was constructed of turf and the wall contours are barely visible today.
Recommended action: The site does not require any actual maintenance but it could be considered whether to mark out its outline with a low turf wall in order to render it visible.

Ruin no. 7: Byre or storage building
Status: The ruin is located c. 100 m north of the central ruin area, close to the reconstructions. Previously, it appeared very diffuse and dilapidated, with damage being caused by a tractor and agricultural implements driving over it. It was restored in 1999, when a c. 50 cm high turf wall was built to mark and seal the surviving remains of the masonry.
Recommended action: There is no requirement for maintenance apart from regular grass cutting.

Ruin no. 8: Presumed milking pen
Status: The pen was enclosed within a low stone- and turf-built wall. This has collapsed somewhat but is otherwise intact. The damage that can be ascribed to modern use of the area is limited and insignificant.
Recommended action: No particular requirements for maintenance apart from ordinary maintenance/cutting of the grass.

Ruin no. 9: Storage building or byre
Status: This ruin is interpreted as a storage building or skemma. It is located in arable fields some distance from the central ruin area and is therefore not noticed by visitors. In breach of the law, this monument is used for the deposition of field stones. Moreover, ploughing has for years been carried out too close to its the southern side.
Recommended action: Photos from 1932 should be examined to ascertain which field stones have been added subsequently so these can be removed.

Ruin nos. 10-11: Byre with associated milking pen
Status: The contours of these two structures, which were built on either side of a Norse outfield wall (no. 61), are very faint and the building remains appear to have been disturbed by tractor traffic.
Recommended action: It should be ensured that the aforementioned traffic maintains its distance from the ruins. As a preventive measure, consideration could be given to marking the structures with low turf banks. Slightly to the west of ruin no. 10 is a recent structure in the wall which can be removed. A recent wall and a recent building are located further to the west, close to where the outfield wall ends.

Ruin no. 12: Byre and hay barn
Partially destroyed by a modern addition to the house that now stands on the site.

Ruin no. 13: Hay barn or animal shelter
Status: Well-defined structure founded on large stones. Grazing in former times has led to some damage to the walls and the surrounding terrain. At the time of the visit in 1997 there were field stones on the monument.
Recommended action: Removal of fallen and deposited stones and deturfing around the outer walls – and possibly also the interior of the ruin – would have a positive effect. The ruin lies a little out of the way and does not have top priority, but the situation must be rectified, not least on preventive grounds.
Ruin no. 14: Possible byre

Status: Well-defined structure. A number of stones have fallen from the walls. Some old agricultural equipment stood beside the ruin when it was visited in 2013, and a heap of field stones has been deposited in the vicinity.

Recommended action: The walls should be restored to the extent that the fallen stones can securely be put back into place; other stones should be removed from the ruin. The users of the area should be informed that the old agricultural equipment and heap of stones are to be removed.

Ruin no. 15: Barn or storage building

Status: A small, well-defined and more or less well-preserved stone foundation of no great value as a visitor attraction. Heaps of field stones have been deposited about 4 m from the ruin to the south and southwest.

Recommended action: The actual ruin requires no maintenance, but the user should be obliged to remove the stone heaps.

Ruin no. 16: Animal pen

Status: The stone wall which encloses the pen does not appear to have been disturbed in modern times. It is more or less intact even though it was built on sloping ground.

Recommended action: No maintenance is considered necessary as the natural vegetation is short and the wall is visible around its entire course.

Ruin no. 59: “Thodhilde’s Church”

Status: This is visible above ground today as a turf marking of the outline of the church building (fig. 10), which was constructed in the 1960s on conclusion of the archaeological investigations. The turf structure has survived well, although it has sunk a little over time.

Recommended action: It is recommended that a couple of courses of turves be regularly added to the turf marking at several-year intervals. Visitor access to the site should be ensured by marking out a path that is kept clear of vegetation. The grass on and around the marking should be cut by hand in the summer period.

Fig. 10. Ruin no. 50 – “Tjodhilde’s Church”. Photo from 2008.
Ruin no. 60: Presumed remains of longhouse

Status: The structure stands in an arable field and is only visible as a slight elevation in the terrain. It was discovered in the 1960s and, following a trial excavation in 1974, it was covered with soil to enable cultivation of the area. The investigation indicated that it could represent the earliest Norse building at the locality. It is possible that this structure is contemporaneous with “Tjodhilde's Church”.

Recommended action: The ruin has obviously no need of maintenance in its present circumstances. Regular checks should, however, be made to ensure that the covering layer is adequate to protect the ancient monument. An excavation would possibly shed light on Brattahlíð's earliest history. The ruin has important potential with respect to future research and communication.

Ruin no. 61: Infield bank

Status: The bank is made of turf and stone and can be followed over a long distance to the north of the central ruin group. It is badly collapsed and in a few places has suffered slight damage from tractor traffic across it. Otherwise, it is intact. Parts of it run across arable fields.

Recommended action: Making the bank more visible with a low turf sealing layer could be considered as the slight remains of the structure will otherwise be in great danger of being destroyed as a consequence of agricultural activities.

Ruin Group E29 (River Farm)

This small collection of ruins is thought to be an independent farm settlement which, on the basis of its location, has been given the name “River Farm”. In addition to the dwelling, the complex comprises the remains of a couple of byres, a barn and an outhouse – in all, six buildings. Traces have also been demonstrated of a canal which is presumed to have been dug to lead water from the river down out across the infield.

Ruin no. 18: Dwelling

Status: This ruin was excavated by Daniel Bruun in 1894 and subsequently restored (Bruun 1895) (fig. 11). In recent times, a garden has been created in the ruins (Kapel 1997) and in the process, some of the internal walls have been cleared out. Some of the stones from these have been placed on the outer walls and the ruin appears dilapidated today (fig. 12). To the north of the ruin is a vehicle track which runs so close to the wall that the foundation stones are affected. The northwestern corner of the settlement complex has today been removed. When visited in 2013, there were large hay bales, wooden posts and rolls of fencing wire in and around the ruin, which disfigure it.

Recommended action: A decision in principle should be made with respect to the degree to which “River Farm's” ruins should feature in the general communication/presentation plan. If included, the ruin should be subjected to restoration whereby an attempt is made to recreate the situation as it was in 1894. Under any circumstances, the farmer should be urged to remove the aforementioned materials from the ruins. Moreover, it would be an idea to reroute the road by the northwest corner so it respects the ancient monument by a minimum distance of 2 m. This is a landmark ruin, conditional on it being tidied up.
Ruin no. 19: Byre and barn
*Status:* A potato garden has been made in the eastern part of the ruin and the western end is disfigured by several large stones from field clearance. There is also metal wire in the byre end. Otherwise a fine landmark structure worth visiting, with preserved stall dividers.

*Recommended action:* The garden should be discontinued and the interior of the ruin re-established. In the future, it should also be kept free of cultivation within 2 m of the visible walls.

Ruin no. 20: Byre or possible goat shed
*Status:* This is a clearly-defined ruin that appears unaffected by recent cultivation practices and grazing. Field stones have, however, been deposited in it, together with a large metal container (fig. 13). At the time of the visit, the ruin was covered with tall grass.

*Recommended action:* The user must be urged to remove the metal container and the deposited stones. If the ruin is included in the presentation/communication plan, the vegetation must be cut by hand a couple of times each summer.

Ruin no. 21: Byre
This ruin no longer exists. The road runs along the longitudinal axis of the building.

Ruin nos. 22-23: Interpreted as storage buildings
These ruins no longer exist.
Ruin no. 24. Possible storage building
In 2000, the ruin was covered with a c. 1.5 m thick layer of soil, after which a football pitch was established.

Ruin no. 25. Byre and hay barn, possible goat shed
Status: Well-preserved ruin in the grazing area. There are a number of stones in the interior of the ruin that do not appear to have been deposited in recent times. The area is closely grazed.
Recommended action: No maintenance requirements.

Ruin no. 26: Storage building / Inuit burial ground
Status: A well-preserved ruin located on a raised river terrace southwest of “River Farm's” other structures. At least ten Inuit graves have been positioned up against the outer walls of the ruin, and stone from the ruin has been used as building material for these. In several of the graves, preserved skeletal remains are visible between the stones.
Recommended action: No maintenance measures are considered necessary. The secondary burials enhance the monument's cultural-historical dimension.

Ruin no. 27: Animal pen
This structure, which is located c. 300 m southwest of “River Farm”, consists of two stone barriers running across a steep gully. The monument lies peripherally relative to the other ruins and has only modest value as a tourist attraction.

Ruin no. 28: Animal pen
Status: The ruin consists of an oval area enclosed by a stone wall. The wall is heavily collapsed, but is otherwise well preserved and visible along its entire course. A modern vehicle track runs transversely through the animal pen in an east-west direction. Minor damage is evident where it crosses the wall.
Recommended action: The vehicle track should be rerouted so traffic with tractors and other agricultural implements does not cause further damage to the wall in the future.

RUIN GROUP 61V3-III-012 (INUIT SETTLEMENT)
Immediately north of the ruin of the latest Norse church – ruin no. 1 in ruin group E29a, and positioned outermost on the slope towards the fjord, are remains of Inuit houses from the Thule culture. The ruins have been investigated and on that occasion it was established that there were also traces of Palaeo-Eskimo (pre-Inuit) activity at the site, suggesting that it was inhabited long before the Norse landnam. Its status and the recommendations for maintenance measures are based on Kapel (1997).

Status: The ruins are exposed to erosion in that parts of the coastal slope are undermined by wave action and regularly collapse down onto the foreshore. A couple of the house sites were restored in connection with the excavations in Qassiarsuk in the 1960s. Already by this time, they were heavily eroded in that the outer part of their entrance passages was gone. At the present time (1997), it appears that only two of the ruins can potentially be saved.
Recommended action: It is very important for the presentation of the history of the site that these ancient monuments are preserved. As they are, moreover, located so to say at the centre of the ruin group most worth visiting at Qassiarsuk, extra efforts should be made in this respect. It is not possible to rebuild that which has been lost to erosion. Instead, efforts should be concentrated on
securing what remains by stabilising the c. 2 m high slope. It will also be necessary to secure the coast below and on both sides of the ruins. Effective coastal protection could be achieved by adding stones and boulders to the foreshore. Large quantities of material are required and the coastal defences must be established over a stretch of 50-70 m. The settlement road, which runs very close to one of the ruins, should be rerouted so it maintains a distance of 2 m from visible masonry.

**Layout of paths on the northern part of the Qassiarsuk plain**

The maintenance plan of 1997 contains a recommended path layout for the area (Kapel 1997) (fig. 14). The aims of establishing such a route are to 1) minimise erosion of the actual ruins, 2) optimise the public's experience of their visit by leading them to selected viewpoints, where the visual impression can be supplemented by explanatory texts for example in a leaflet, on a poster board or in an information app, and 3) protect the local inhabitants’ crops, fences and private areas. The routes can be marked in various ways, according to theme and length. In some places, it will be necessary to have fixed paths, in others – in association with certain of the ruins – it can be considered whether to establish “walkways” that are raised slightly above the terrain in order to provide the public with a better overview.

Work on creating the system of paths was initiated in 1999 in the central ruin area towards the north, where the path that forms the main route through the ruins, running up towards the reconstructed buildings, was constructed (fig. 15). A route was also planned behind the byre complex (ruin no. 5), and the first stage – running to the western end of the byre – was completed. An 80 cm wide trench along the route was deturfed to a depth of 10-15 cm. In the marshy area to the north of the house site (ruin no. 2), it was necessary to remove deposits of up to 40 cm in thickness before solid ground was encountered. Geotextile was laid out in the excavated path trench as reinforcement and as a vegetation-inhibiting membrane. A base layer of stone aggregate was laid down on top of this, followed by a covering layer of soil mixed with wood chips. This fill was then consolidated with a stamper so the walking surface was solid and even.

Work on the path system began in 1999 in connection with the 1000th anniversary celebrations but was not continued and there has been no activity since. Experience has since demonstrated that the geotextile employed is unsuitable for the purpose as, after a number of years, the vegetation grows through again. It is recommended that a layer of pebbles is laid out on the paths instead. First and foremost, however, there is a need for regular annual maintenance of the path system, as well as expansion of the path network.
E28a (‘THE THINGSTEAD’)

Directly south of the rocky outcrop in the middle of the Qassiarsuk plain (fig. 1), various structures were demonstrated in 1932, which were interpreted as a place of assembly or ‘thing booths’. Guldager et al. (2002: 80-81) observed 13 structures which were delimited by low walls on both sides and interpreted these as possible traces of a farmstead from the first phase of the settlement. There is very little to see at the site today and new archaeological investigations are required if the function of the area is to be clarified and if the structures are to be marked.
The ruins on the southern part of Qassiarsuk plain are seen as representing an independent farm or possibly two (fig. 16). The area receives very few visitors today and to date no maintenance or tidying up initiatives have been carried out on the ruins. Future permanent maintenance initiatives in Qassiarsuk comprising cutting of the vegetation, removal of litter etc. should also include the ruins in this area. In the following, a short description is given of the 16 recorded structures, based on Guldager et al. (2002: 82-83):

**Ruin no. 46a: Dwelling**
Large house site which is very overgrown; it is difficult to determine its dimensions. The eastern end has been disturbed by two Inuit winter houses, which are later than the Norse occupation.

**Ruin no. 46: Byre**
The byre is presumed to have belonged to the dwelling, ruin no. 46a.

**Ruin no. 47: Dwelling**
House site that was excavated in 1932 (Nørlund & Stenberger 1934).
Ruin no. 48: Stone-built building
Ruin of small stone building.

Ruin no. 49: Byre building?
Possible byre structure.

Ruin no. 50: Byre?
Possible byre.

Ruin no. 51: Small stone-built building
Function unknown.

Ruin no. 52: Byre structures
Two byre structures of turf and stone that are built up against a rock cliff face which forms part of the wall in both.

Ruin no. 53: Byre structure?
A building very similar to ruin no. 52.

Ruin no. 54: Byre
Presumed byre structure.

Ruin no. 55: Animal pen
Small stone-built animal pen, built up against a rock cliff face.

Ruin no. 56: Bank
Preserved remains of a low bank.

Ruin no. 57: Byre
A presumed byre structure.

Ruin no. 58: Byre
A presumed byre structure.

Ruin no. 102: Bank
Remains of an infield bank.
Igaliku

In this sub-area are 13 groups of Norse ruins and four modern farms. The ruins of the Norse episcopal residence of Gardar (E47) stand on a large fertile plain at the head of Igaliku Fjord and, with its total of 52 recorded structures, this is the largest of all the Norse ruin groups in Greenland. The locality is, in an international context, one of Greenland's most significant historical monuments. However, for various reasons, the ruins at Igaliku today do not have an easily accessible and dignified appearance fitting to such an important monument.

Firstly, the various structures have over time suffered physical damage in that stones have been removed and reused to build the present settlement's stone houses from when this was founded in 1783, until the authorities' ban on taking stones from the Norse ruins in the mid-1930s. It was also common during parts of the 20th century for the inhabitants of the settlement to make their vegetable plots in the ruins. Furthermore, the traces left by the many excavations contribute to confusing the picture.

Initially, it was Danes employed in the service of trade and mission who carried out small excavations during their visits to Igaliku. The first systematic investigations of selected ruins were carried out by Daniel Bruun in 1894 (Bruun 1895). The major archaeological excavation took place in 1926 under the direction of Poul Nørlund for the National Museum of Denmark and encompassed the cathedral and the large dwelling complex (Nørlund 1929). Later, in the 1970s and 1980s, Knud J. Krogh carried out minor investigations for the Danish National Museum which are unpublished. Most recently, in 2012, Greenland National Museum, in collaboration with the University of Iceland, Hunter College, CUNY, USA, and the National Museum of Denmark, investigated well-preserved Norse culture layers in a damp field east of the central ruin area (Vésteinsson 2014). In addition, surveyor Niels Christian Clemmensen of the Danish Agency for Culture, in conjunction with archaeologist Hans Kapel, undertook a GPS-based survey of the ruin group in 2012 (fig. 1).

On the ruin area are a number of heaps of dug-up soil and stones from earlier excavations which can obscure ancient features. Similarly, non-backfilled excavation trenches from recent times located by the presumed “tithe barn” also disfigure the site. Then there is ordinary decay due to the elements.

In the summers of 1991-96, in a collaboration between Greenland National Museum, museum curator Knud Krogh, the National Museum of Denmark and Narsaq Museum, initial restoration and exposure of some of the episcopal residence's ruins was undertaken. This work was unfortunately interrupted and did not result in the formulation of a restoration or management plan for the ruin area. In advance of the Leif Ericsson anniversary in 2000, Narsaq Museum, in conjunction with archaeologist Hans Kapel, launched a tidying-up project in which the vegetation was cut back. There then followed a number of years with no maintenance measures, when the ruin area became heavily overgrown with grass and lyme grass, until 2010, when Greenland National Museum began annual maintenance initiatives and made a plan for future restoration work.

The action plan outlined in the following is based on Greenland National Museum's report from 2010: Pleje of synliggørelse af norrøne ruiner i Igaliku – Maintenance and visualisation of Norse ruins in Igaliku.
The ruin area
The central part of the ruin area of the episcopal residence is c. 125 m in length (N-S) and c. 115 m in width (E-W). Figure 1 shows a plan with the ruins at the episcopal residence and the cathedral drawn in, together with the course of a fence established in 2011. Traces of vegetable plots made by the settlement's inhabitants in recent times are marked in green.

The gardens
Today, only two of the settlement inhabitants' vegetable plots in the ruin area are in use. One is the green rectangle in the northern part of the dwelling site (ruin no. 8). The other lies immediately adjacent to the large byre in the southern part of the area, more precisely the green plot located immediately south of the number 9 in ruin no. 9. Former museum curator Knud Krogh of the Danish National Museum was told by now deceased Igaliku inhabitants that archaeologist Poul Nørlund, who directed the excavation in 1926, did not contemplate protection of the ruins. He had no objections to the settlement's inhabitants using the humus-rich spoil to establish garden plots in or by the excavated ruins, where the masonry could provide a protective outer barrier against the elements (Knud Krogh in a letter to Greenland National Museum in 2005). Krogh mentions that, during his first visit to Igaliku in 1962, there were still many small gardens around the ruins and a number of outhouses, but most of these were, over the subsequent years, 'quietly and gradually abandoned', after which they were 'tidied up'. Traces of abandoned vegetable plots are, however, still evident in several places, as is apparent from figure 1, where they are marked in green. The most conspicuous of these, including traces of a garden in “the hall”, should be abolished and all visible traces removed as part of the coming developments. For the two remaining active gardens, the following actions are recommended:
Vegetable plot in the northern part of the dwelling (ruin no. 8)
This garden is associated with the characteristic storage building (B-371), which is deemed worthy of preservation and which stands immediately west of the cathedral ruin and its associated churchyard (fig. 2). This house was the home of one of the settlement's famous personalities, Amos Egede (1872-1958). After the house's last permanent inhabitant, Andreas Egede, died in 2003, it was used as a holiday home by family members who live elsewhere. In his previously mentioned letter to Greenland National Museum in 2005, Knud Krogh suggests that the museum should take steps to secure the “right of use” to this vegetable plot. He writes:

The garden has “consumed” part of the excavated episcopal residence. I don't know whether there are parts of the walls still beneath the garden soil. On a plastic overlay, I have drawn the outline of the “missing” parts of the bishop's dwelling, and it is my view that, insofar it becomes possible to acquire the right of use to the garden, the walls shown on the overlay should be reconstructed. The episcopal residence is an extremely interesting edifice, which in a cleared and partially reconstructed state would be of the utmost importance for visitors' experience of the episcopal complex as a whole.

Krogh's recommendation concurs with the considerations undertaken during fieldwork in summer 2010. A future restoration would, however, require prior archaeological investigations in order to determine whether structures are preserved beneath the cultivated soil.

The garden to the south of the large byre (ruin no. 9)
This garden is the green plot to the south of the number 9 in ruin no. 9 (fig. 1), which is a large byre and hay barn. In 2010, the vegetable plot's northern stone wall continued all the way in to the wall of the hay barn (fig. 13). As a consequence, it was decided to move the north wall c. 3-4 m to the south. With the full agreement of the user of the garden, this work was undertaken in conjunction with the establishment of a fence around the ruin area in 2011. As one of the two remaining active gardens in the ruin area, we consider this vegetable plot to be a cultural-historical monument which illuminates one aspect of the recent history of the ruin group. It is therefore desirable that it be preserved with its present appearance after the northern stone wall has been moved outside the ruin (fig. 3).
Pleje- og restaureringstiltag for de enkelte ruiner

Ruin no. 1: The cathedral and the churchyard

*Status:* Renovation of the church ruin was undertaken in the 1990s under the direction of Knud Krogh, during which the walls were marked out with turf, while the interior of the church was covered with a thick layer of stone chippings and pebbles. When visited in 2010, lyme grass had grown up through the stone layer in the church's interior. In order to facilitate future maintenance and enhance the spatial perception of the cathedral, it was decided instead to remove the layer of chippings and pebbles, add a layer of soil and sow this with grass seed: This was done in 2012. It is our view that the grass covering gives the ruin area a more harmonious overall appearance as well as rendering it easier to maintain. Stone chippings have associations with an active churchyard environment which are inappropriate to the ruins (fig. 4).

*Recommended action:* As in other parts of the ruin area there is a great need for regular cutting of the vegetation during the course of the summer. The turf-built walls of the church ruin presently require no maintenance other than trimming of the turf marking their course.

Ruin no. 2: Foundation of bell tower

*Status:* For many years, this ruin has appeared overgrown and obscure, causing it to be overlooked by visitors.
**Recommended action:** Only relatively modest maintenance efforts are required for the presumed bell tower to stand out clearly, i.e. exposure of the stone foundation around the perimeter of the quadratic ruin and trimming of the turf marking the foundation. Figure 5 shows the foundation after it was exposed in the excavation of 1932.

![Fig. 5. Foundation of the presumed bell tower (ruin no. 2) in 1932.](image)

**Ruin no. 3: Possible bell tower**  
*Status:* The ruin is not visible today.  
*Recommended action:* It is recommended that the original course of the walls be marked out with grass turf. This would require a prior archaeological investigation, including consultation of the records from the 1932 excavation.

**Ruin no. 4: Very uncertain ruin**  
Too few archaeological data are available for this structure to be marked out with turf. There are traces of a garden plot from recent times at the site.

**Ruin no. 5: “The tithe barn”**  
*Status:* In the examination of the ruins in 2010, a need to secure the western portal of the entrance gate on the south side of the ruin became clear. Support for the large lintel, which weighs several tons, was particularly unstable at one side because good building stones had been removed for other purposes in recent times and replaced with irregular examples ([fig. 6, left](image)). As it has been a common sight over the years to see visitors – especially children – climbing up onto and sitting or standing on the lintel, a restoration was clearly necessary on safety grounds. This was undertaken in July 2013. Photos and drawings from the late 19th century were used as a basis for finding good building stone of Igaliku sandstone in the surroundings, which could be inserted instead of the irregular stones. Three newly inserted stones were fitted with a metal bolt bearing the date 2013. **Figure 6**, right, shows the portal following restoration in 2013.

![Fig. 6. The western portal at the entrance to the “tithe barn”, before (left) and after (right) restoration.](image)
**Recommended action**: Two open excavation trenches in the interior of the ruin, resulting from Knud Krogh's archaeological excavations in the 1970s, located by the two entrances on the southern side, should be back-filled on level with the threshold stones (fig. 7). A couple of heaps of soil and stones in the interior of the ruin also possibly originate from these excavations and one option would be to carry out an investigation to determine whether these are “archaeological spoil heaps”. Their removal would, under any circumstances, enhance the appearance of the ruin. It is recommended that an attempt be made to find ”virgin”, i.e. in situ, surfaces inside the ruin, i.e. find the level prior to the first archaeological investigations (post-Norse surface) and remove all overlying fill material. This would be an extensive project, but the ruin deserves it. Furthermore, it is recommended that, based on old photos and drawings, an attempt is made to put a few large fallen stones, which lie alongside the outer walls of the ruin, back in their original positions in the masonry.

Knud Krogh's excavation trenches from the 1970s continue outside along the south side of the wall, and the footing stones of the masonry are clearly visible as a consequence. It is recommended that a 10-20 cm thick layer of turf, gravel or beach material (i.e. pure material) is laid up to the level of the footing stones. There is also an archaeological trial trench running at right angles to the south wall of the “tithe barn” (fig. 8), which should be back-filled. The trench continues to a stone heap resulting from earlier excavations and possibly dating as far back as Qaqortoq-based pastor Jørgensen's investigations in the 1830s.

![Fig. 7. Excavation pit in the “tithe barn”](image1)  ![Fig. 8. Archaeological trial trench and excavation pit to the south of the “tithe barn”](image2)

**Ruin no. 6: Storage building**
The ruin is difficult to discern due to stone heaps and vegetation layers.

**Ruin no. 7: Uncertain interpretation**
Even more difficult to discern than ruin no. 6 and must be termed as uncertain. The structural remains are possibly older than ruin no. 6.

**Ruin no. 8: Dwelling and hall**
*Status*: Most of the dwelling complex is evident in the form of banks in the terrain, which are difficult for visitors to comprehend (fig. 9). Only the associated banqueting hall is clearly evident as a well-preserved and impressive ruin (fig. 11). The northern c. 2/3 of the interior of the hall was, until a few years ago, a potato plot. In the remaining part, the surface is preserved at a slightly higher level.

*Recommended action*: In a cleared and partially restored state, the dwelling complex would be of major importance for visitors' experience of the episcopal residence. Such a restoration will though,
in itself, be a major project. It will require a thorough preliminary investigation, whereby the original positions of stones in the walls are established, based on excavation photos and drawings from the excavations in 1926 and with the aid of a stone probe. It will also be necessary to carry out minor archaeological investigations in order to establish how much is preserved of the original walls, ideally supplemented by detailed mapping using georadar. Conditional on the stones being preserved in the outer wall, exposure of these would contribute to visualisation of the monument. In the banqueting hall, turf can be removed from the corners towards the south to even out the level somewhat. Prior to commencing restoration of the hall, there is also a need for an investigation based on photos and drawings from the excavations in 1926.

A pathway made up of very large, flat stones, leading from the main entrance to the episcopal residence, was demonstrated during the archaeological investigation in 1926 (fig. 10). Today, however, this is covered by grass turf and it would benefit from being uncovered, conditional on all the stones continuing to lie in their original positions.
Ruin no. 9: The large byre

**Status:** The large byre in the southern part of the ruin area was restored by Knud Krogh in the 1990s. The edges of the outer walls were cut with a spade so the walls are easy to comprehend. Krogh also laid a layer of crushed stone in the ruin's interior – both at its eastern and western end – as he had done in the church ruin. In Greenland National Museum's restoration of the byre in 2011-12, this stone layer was removed. Instead, a layer of soil was added and sown with grass (fig. 12), partly to facilitate future maintenance. In conjunction with fencing in of the ruin area, a farm track that previously ran across the eastern half of the byre ruin was abolished (fig. 13). The south wall was also disfigured at its eastern end by a stone wall from an adjoining vegetable plot, which had been built in over the outer wall (fig. 13). This stone wall was moved 3-4 m to the south so that it now stands outside the ruins (figs. 14-15).

**Recommended action:** There is a need for regular cutting of the grass as well as trimming and maintenance of the turf edges.
Ruin no. 10: Possible storage building
This is a disturbed ruin that is difficult to discern in the terrain.

Ruin no. 11: Interpreted as a smithy
Status: A quantity of iron slag was found here during excavation, giving rise to the above interpretation. Today, a clear quadrangular depression is evident in the terrain, which suggests that the ruin was reused as a vegetable plot following excavation in 1926.

Recommended action: In the first instance, the ruin should be left untouched, but consideration can be given later to whether an attempt should be made to relocate the course of the walls and possibly mark these with turf.

Ruin no. 12: Barn or storage building
Status: An imposing structure with very large footing stones all the way round and an entrance on the south side (fig. 16).

Recommended action: Trimming work should be carried out around the ruin, including removal of vegetation from between the stones. There is a recent stone heap by the entrance, which should be removed.

Fig. 16. Ruin of storage building. Seen looking east.

Ruin no. 13: Function unknown
Status: Daniel Bruun excavated this ruin and interpreted it as a dwelling, but it was not included in the Danish National Museum's investigations in 1926. Appears obscure.

Recommended action: An archaeological excavation is necessary if anything further is to be learned here.

Ruin no. 14: The large byre complex east of the cathedral
Status: This ruin was not investigated during the archaeological excavations of 1926. Archaeologist Daniel Bruun demonstrated the existence of stone stall dividers in 1894, leading to the interpretation of the ruin as a byre (fig. 17). The course of the wall on the north side is a little obscure, in part due to a nearby stone heap. There is also a recent heap of stones in the west gable. Large stones in the southern wall render this much more clearly visible.

Recommended action: This impressive ruin deserves work to render it more visible and intelligible. The large stones in the north wall of the ruin should be uncovered. An investigation should also be carried out to ascertain whether the stone stall dividers found by Daniel Bruun still exist in the
interior of the byre. Moreover, recent stone heaps in the vicinity of the north wall and west gable should be removed.

Fig. 17. The byre complex east of the cathedral. Seen looking east.  Fig. 18. The well.

**Ruin no. 15: The well**
This ruin has now been renovated on the basis of Poul Nørlund's records from the 1926 investigation (fig. 18).

**Irrigation system**
To the west and southwest of the episcopal residence are various structures which are interpreted as a Medieval irrigation system with dams and irrigation ditches (cf. e.g. ruin nos. 41-49 in Krogh 1982: 92). Edwards and Schofield (2012) have investigated three sections through the visible furrows in the terrain, which are interpreted as irrigation ditches. Two of these proved to be natural phenomena, while the third appeared to constitute a man-made structure. There is a need for further investigations if an understanding is to be gained of the degree to which irrigation was employed here.

**FENCING OF THE RUIN AREA**
The ruin area was fenced in 2011 (fig. 19). The original idea was to allow some sheep to graze the area as an alternative to cutting vegetation several times a year. For various reasons, this plan has yet to be realised. The marking out of the ruin area represented by the fence enhances visitors' understanding and protects the surrounding fields, where grass for winter fodder is grown, from trampling.

Fig. 19. Fence around the ruin area.
Path network
The existing paths in the area have been rather randomly determined. Future paths should be mapped out according to a well thought-out plan and equipped with marker poles.

Regular maintenance and restoration and archaeological research
Since 2010, the vigorous vegetation on part of the ruin area has been cut manually with brush cutters by Greenland National Museum, in cooperation with Kujalleq Municipality. Two cuts each summer, in July and August, are more or less able to keep the vegetation at bay so the ruins are visible to visitors. However, the ruin area should ideally be cut at about two-week intervals from mid-summer to the beginning of September. Insofar as a planned solution involving the grazing of sheep or goats on the ruin area – goats would be preferable due to the extensive growth of lyme grass – is finally abandoned, efforts to cut the vegetation manually should be intensified.

As is evident from the above, several of the area's striking ruins have been restored in recent years. It is planned to continue this work and in conjunction with this, it will be necessary to carry out minor archaeological excavations. Furthermore, a number of targeted research investigations should be undertaken over a period of several years. The ruin group is far from fully investigated and continued investigations can only supplement our knowledge of these important monuments. There is a need to formulate an overarching plan for such investigations in and around the central ruin group. Some of the preliminary proposals for future archaeological investigations are outlined in the following:

The cathedral. Here are still several unanswered questions about the various phases of the church that cannot be resolved by studying archaeologist Poul Nørlund's plans and elevations from the excavation in 1926. In particular, these relate to the north-south wall that Nørlund observed from the south wall of the cathedral (on respectively the nave and chancel), which he assigned to the church's first construction phase. Similarly, there are doubts associated with the eastern gable of the nave. Finally, there is some uncertainty with respect to the length of the original Romanesque chancel.

The dwelling. There is uncertainty about Nørlund's phasing. As minor investigations are necessary in connection with the restoration work on the dwelling, it makes good sense to locate these in places along the course of the masonry where they will be able to provide answers to some of the most important questions. In earlier excavations, it was usual not to remove masonry from the ruins. As a consequence, it should be possible in many places to find intact turf walls from the Middle Ages and thereby also trace relations between earlier/later phases. Precisely where these trial investigations should be undertaken must be carefully planned in relation to the most pressing questions about the construction history of the dwelling.

Well-preserved culture layers in the bog to the east of the ruin area. An archaeological investigation of a damp field and bog area to the east of the ruin area in 2012-13 revealed a c. 80 x 60 m area containing refuse layers which are coeval with the episcopal residence, cf. the two excavation trenches east of the spring on figure 1 (Vésteinsson 2014). Due to excellent preservation conditions for organic remains such as wood, plant remains, leather, animal bones etc. these refuse layers constitute a significant supplementary source of information and also represent important research potential in relation to the central ruin area, where preservation conditions for organic material are not good.
Sissarluttoq E59

There is only a single group of ruins here, and no modern farms: A total of 44 ruins have been recorded. Many appear distinct and undisturbed in the terrain, and they represent one of the Norse ruin groups most worthy of seeing in Greenland. Their good state of preservation can be ascribed to the skill of their Norse builders and the relative inaccessibility of the locality, which means that the area has not been exploited intensively by modern sheep farming. Another important factor is that the ruins at Sissarluttoq have been subject to an areal scheduling since 1950, as described in *Kundgørelser vedrørende Grønlands Styrelse* (1950) (Promulgations of the Greenland Provincial Council (1950)).

Gustav Holm (1883) produced the first general map of the ruins in 1880. Later, surveys were undertaken by Knud Krogh in conjunction with surveyor Poul Erik Petersen, which are unpublished. In 2008 and 2009, a GPS-based survey was carried out by surveyor Niels Christian Clemmensen, Danish Agency for Culture, in conjunction with archaeologist Hans Kapel (Clemmensen & Kapel 2008, 2010). There is no modern published overview of the ruin group and the latter two surveys/reports form the basis for the following description.

The ruin group lies in a valley slightly above the west side of Igaliku Fjord, c. 15 km south of Igaliku. A lush grassy plain constitutes the central area, where the ruins are distributed on either side of a small stream. Below the ruins, this stream joins a larger river, which runs from the southwest through an almost 10 km long valley system with lakes and marshes with extensive grasslands. Figure 1 offers a bird’s eye view of the ruin area from the west, while figure 2 gives an overview of the ruins.
Ruin catalogue

Ruin no. 1
This ruin, which is marked on Holm’s map directly north of where the main river meets the fjord, was thought to have been destroyed in the mid-20th century in connection with the building of a sheep cot. A thorough search of the small plateau below this recent building did, however, bear fruit and the small ruin can be described as follows:

Foundation of a small stone building, c. 4 x 6 m. The ruin has been disturbed in recent times by the establishment of a sheep cot and slaughtering station, but the walls to the south and west can be clearly identified. It probably represents a warehouse.

Fig. 1. The sheep cot seen from the northwest. The red arrow shows the location of the ruin. No detail photo.

Ruin no. 2
Large stone building with drystone masonry, divided into two rooms. The ruin is well-preserved. There is a 0.6 m wide door opening in the northeastern side. Wall thickness 1.5 m. Slightly offset from the southern gable is a terrace-like extension. Possibly a byre with a hay barn.

Fig. 2. The ruin seen from the ESE. Possibly a byre with a hay barn.
Ruin no. 3
Large stone-built outhouse or storage building. The walls are preserved up to a height of 1.8 m. The door opening in the southern wall is intact with lintel. Wall thickness 1.4 m.

Fig. 3. Ruin no. 3 is an unusually well-built drystone building. constructed of selected and well-fitted stones, as can be seen from the close-up to the upper right. The photo to the upper left shows the inside of the ruin from the west. Below, the 0.7 m wide, well-preserved entrance passage in the south wall.
Ruin no. 4
Solid and reasonably well-preserved drystone building. In the west gable is a c. 1 m wide entrance. Wall thickness 1.3 m. Outhouse.

Ruin no. 5
Particularly well-preserved drystone building with c. 1 m thick walls and a door opening in the west gable. Outhouse.
Ruin no. 6
Well-preserved drystone building with one gable facing the river. Could possibly have had a joint function with ruin no. 9, which stands immediately opposite, on the other riverbank.

Fig. 6. The east gable of the ruin faces out towards the river, directly opposite ruin no. 9.

Ruin no. 7
Well-preserved walls of a predominantly stone-built building. A 1.2 m entrance passage is evident in the eastern wall. Wall thickness c. 1.25 m. Storage building or hay barn?

Fig. 7. To the left, the ruin seen from the ENE. To the right, the building’s interior.

Ruin no. 8
Building with at least one room, built of stone with external turf walls. Wall thickness c. 1.8 m. An extra room or outhouse appears to have been added to the outside of the north wall. A 1.3 m wide entrance passage is evident in the southern wall. Possibly a byre.
Fig. 8. Ruin no. 8 seen from the northeast. The extension is concealed beneath the large grassy hummock.

**Ruin no. 9**
Very dilapidated building, built predominantly in stone. Its function is unknown, but, as mentioned above, it could have had a joint function with ruin no. 6, which stands immediately opposite, on the other riverbank.

Fig. 9. The well-preserved ruin no. 6 can be seen to the left of the river. Ruin no. 9 is concealed beneath the stone heap on the opposing riverbank.

**Ruin no. 10.**
The dwelling. Large, very complex and dilapidated house site with numerous rooms. The external and internal contours of the building are very diffuse. Built of turf and stone. A well-defined 0.5 m wide door opening is evident in the west wall. There is another in the east wall, facing out towards ruin no. 9. Wall thickness up to c. 2 m.

Fig. 10. The northern part of the dwelling, ruin no. 10, seen from the west.
Fig. 11. The farm’s central buildings are distributed on both sides of the river. The dwelling (ruin no. 10) is in the middle of the picture; above this is the large byre building (ruin no. 11). Seen from the NNW.

**Ruin no. 11**
Large stone and turf building, divided up into several rooms. The two westernmost rooms have stall dividers. There is a 0.8 m wide entrance passage in the southern wall. There may have been a further two entrances. Wall thickness up to 1.6 m. Cowshed (byre) with associated hay barn.

Fig. 12. Ruin no. 11 was enclosed within thick turf walls. The stall dividers at the western end show that at least this part of the building once served as a cowshed (byre).
Ruin no. 12
Building predominantly in stone, with two, possibly three rooms. There is an entrance passage in the eastern part of the southern wall. External dimensions 5 x 17 m. Function unknown.

Fig. 13. Ruin no. 12 seen from the west.

Ruin no. 13
Very large, almost square structure with solid stone walls. In the southeastern wall is a 0.75 m wide entrance passage. The walls are up to 1.9 m thick and are preserved to a height of 1.5 m. Presumably an animal pen. An irrigation canal (ruin no. 41) runs immediately to the north.

Fig. 14. Ruin no. 13 seen from the west. Its ground plan measures 10 x 10 m, and there are no traces of internal walls or other features.
Ruin no. 14
Animal pen constructed to the south of a large rock outcrop. The wall, which consists of a double row of stones, is curved. There appears to have been an entrance at the southeastern end.

Fig. 15. The animal pen, ruin no. 14, seen from the southeast.

Ruin no. 15
Turf-built building with slightly convex long walls. Widest at the eastern end and divided up into two rooms. In the southern wall is a c. 3.5 m long and 0.6 m wide entrance passage. Presumably animal housing.

Fig. 16. Ruin no. 15, presumably a sheep cot or goat shed.

Ruin no. 16
Stone building enclosed within thick turf walls. In the south wall is a 1.2 m wide entrance passage. Wall thickness up to 1.6 m. Faint traces suggest that the building was divided into two rooms. Byre or storage building.

Fig. 17. Ruin no. 16 seen from the east.
**Ruin no. 17**  
Indistinct outline of a turf-walled building with convex side walls. Best preserved is the wall section to the north. Possible entrance passage in the eastern end of the south wall.

Fig. 18. The curved turf wall (north wall) can be clearly seen on this aerial photo, where the contrast has been increased. To the lower left of the picture is the newly-discovered ruin no. 42.

**Ruin no. 18**  
No secure traces of this ruin were found during the survey work, and it was thought to have slipped down the steep slope towards the river. During subsequent examination of aerial photos taken of this area, however, possible structural remains were noted at the location where the ruin is marked on Holm’s map. This must be investigated more closely at the first available opportunity.

Fig. 19. Excerpt from aerial photo. The dark smudge within the circle presumably represents the remains of a turf wall, i.e. all that remains of ruin no. 18. The row of stones on the right could be structural traces associated with the ruin. To the upper left of the picture is ruin no. 17 (cf. fig. 18).

**Ruin no. 19**  
Outhouse or byre with two rooms, built of turf with a few stones. In the south gable is a 1.1 m wide doorway. Wall thickness c. 1.5 m. Very dilapidated.

Fig. 20. Ruin no. 19. Only the thick but very broken-down turf walls are preserved.
**Ruin no. 20**
Animal pen or storage building built of large boulders up against a vertical cliff. Entrance alongside the cliff at the western end.

Fig. 21. Ruin no. 20 seen from the west.

**Ruin no. 21**
Wall structure or stone wall close to the main river. Function unknown; possibly part of an animal pen, the corresponding part of which is ruin no. 39.

Fig. 22. The stone wall or animal pen seen from the NNE.

**Ruin no. 22**
Building foundation consisting of two parallel stone rows. This must have borne a light construction as no wall material is preserved. External dimensions c. 4 x 7.5 m. Function unknown.

Fig. 23. Ruin no. 22; foundation stones of west wall.
Ruin no. 23
Diffuse traces of a small turf-built building with totally collapsed walls. Occasional stones visible in the surface. External ruin dimensions c. 4.5 x 4 m. Unknown function. No photos.

Ruin no. 24
Diffuse remains of a turf-built building, the form of which is difficult to define. External dimensions c. 5 x 5.5 m. Function unknown. No photos.

With respect to ruin nos. 23 and 24, it should be noted that they appear very indistinct, even on aerial photos. However, when seen at ground level, and with the correct lighting, there is no doubt that these represent actual structural remains.

Ruin no. 25
Stone- and turf-built building, bounded to the south by a sharp cliff edge. Divided into two rooms and with an entrance passage in the northern wall. Storage building or small byre.

Fig. 24. Turf foundations for ruin no. 25 are seen in the middle of the picture. The two well-preserved stone buildings are ruin nos. 4 and 5.

Ruin no. 26
Small turf-built building with heavily collapsed walls. External dimensions c. 4.5 x 5.5 m. Outhouse. No photos.

Ruin no. 27
Large turf-built building or animal pen, presumably with a single room. The building can only be identified as a slight elevation with a diffuse outline in the grass-covered terrain. External dimensions c. 10.5 x 11.5 m.

Fig. 25. Ruin no. 27. The contours of the building are difficult to discern.
**Ruin no. 28**
Heavily collapsed structure with stone foundation. A small outhouse is evident to the east. External dimensions c. 7 x 8 m. Presumably an animal pen or outhouse.

![Ruin no. 28](image)

Fig. 26. Ruin no. 28. The contours have been almost completely erased. Only the variation in the vegetation and occasional stones on the surface reveal the presence of the building.

**Ruin no. 29**
Remains of a building made up of two adjoining units, which presumably are of different date. a. Pit extending up to a right-angled corner between two cliffs. Cellar store? b. Low convex wall built up against a high, vertical cliff face. The wall consists of two rows of stones in several courses. External dimensions c. 4.5 x 7.5 m. No photos.

**Ruin no. 30**
Animal pen with two or three stalls built as a single stone wall up against a vertical cliff. Distinct 0.75 m wide entrance in the northwest wall. Wall thickness c. 1.2 m. External dimensions c. 3.5 x 11 m. No photos.

**Ruin no. 31**
Turf-built building with a number of stones in its foundations. Slightly convex side walls and divided into three rooms. There is an opening in the southern partition wall. A 0.5 m wide entrance is evident in the south gable. Wall thickness c. 1.9 m. External dimensions c. 5.5 x 11 m.

![Ruin no. 31](image)

Fig. 27. Ruin no. 31 lies on evenly sloping terrain a good way north of the other ruins. Unknown function.
**Ruin no. 32**
Long turf-built building with thick walls and several stones in the foundations. The side walls are convex. External dimensions c. 6 x 22 m. Unknown function.

**Ruin no. 33**
Diffuse building remains. Internal stone walls enclosed within turf construction. Unknown function. External dimensions c. 6 x 12 m.

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Fig. 28. Ruin nos. 32 and 33 lie isolated next to a small lake some way to the northeast of the other ruins. They possibly represents two byres. Uppermost ruin no. 32 seen from the northwest. Lowermost ruin no. 33 seen from the west.

**Ruin no. 34**
Faint traces of a building or an animal pen built of turf and stone. Contours rather diffuse, but the location is definite. No photos.

**Ruin no. 35**
Small animal pen or storage building, built of turf and stone up against two low boulders. External dimensions 4 x 5.5 m. No photos.

**Ruin no. 36**
Double row of stones laid up against a low outcrop. The structure appears more recent than the nearby ruin no. 32, but is undoubtedly of Norse origin. No photos.
Ruin no. 37
Heavily collapsed stone building on the mountain slope to the south of the main river. Possibly a storage building. External dimensions 4.5 x 7.5 m.

Fig. 29. The newly recorded ruin no. 37 is located on the south side of the large river to the south of the other ruins.

Ruin no. 38
Turf-built building with stone sill. The eastern end, which faces towards the river, has been partially eroded away. External dimensions 3.5 x 5.5 m. Function unknown.

Fig. 30. Ruin no. 38 seen from the west.
Ruin no. 39
This structure, which consists of a stone row or stone wall, is, in places, an up to 1 m wide wall, which begins at the bank of the river and ends at the foot of a steep slope. The stone wall forms one end of an animal pen similar to ruin no. 21.

Fig. 31. Ruin no. 39 with ruin no. 21 in the foreground. Seen from the west.

Ruin no. 40
This structure is a c. 165 m long field wall, built of boulders and smaller stones. The wall extends from the animal-pen-like ruin no. 13 in the north to the bank of the river in the south, close to the animal pens, ruin nos. 21 and 39. It presumably enclosed the infield.

Fig. 32. The northernmost part of the wall, seen from the northwest.

Ruin no. 41
Excavated ditch from which the soil has been deposited onto the slope. The ditch extends from a river located 0.5 km to the west of the ruin area and runs with an even fall towards the large ruin no. 13, from where it continues to a meadow area to the north of ruin no. 12 (see map annexe). It probably continues further to the east, but the traces fade out. The ditch can be clearly identified over a distance of c. 400 m and it undoubtedly formed part of an irrigation system.

Fig. 33. The upper – westernmost – part of the irrigation ditch.
Ruin no. 42
Small turf-built building with one room and thick walls. External dimensions c. 5 x 8 m. Outhouse. The ruin can be discerned on the aerial photo shown in figure 18.

Ruin no. 43
A building constructed of turf and stone with a 0.9 m wide entrance in the western part of the north wall. Wall thickness 1.2 m. Storage building or byre. A closed space is evident between ruin nos. 11 and 43, which possibly represents the remains of an independent building or room.
Ruin no. 44
A dam by the small hollow in front of the lake to the east of the central ruin group. It was identified in the terrain but not surveyed as it was considered doubtful in 2008. A subsequent visit in 2009 and closer study of the aerial photos left, however, no doubt – the dam is manmade.

Only the stones remain from the original earth- and stone-built dam. Its length is c. 27 m, its width c. 3 m and its height is around 0.75 m. I.e. relatively small dam, but large enough to retain water in the small pond, which should probably be seen in association with the byre, ruin no. 2.

Its position shown here on the updated map is based on the aerial photos and field notes. It is therefore not true-to-scale.

At the outlet from the large lake above the pond is a similar accumulation of stones which could also represent the remains of a dam. Further investigation of the site would possibly provide clarification.
Other recorded features

Inuit meat pits or human graves in a shingle bed to the east of ruin nos. 19 and 22

Circular depressions bordered by stones. Diameter c. 0.8 m. Four to five examples could be identified with certainty, but there are possibly more.

Ancient monument (FM) markers
The ruin group at Sissarluttoq was included among the ancient monuments that were scheduled as early as 1937 under the provisional orders *Regulativ af 10. April 1937 angaaende Fredlysning af Fortidsminder i Grønland* (Regulative of 10th April 1937 concerning the protection notice for ancient monuments in Greenland).

At that time the area was not more precisely defined, but in the 1950s, when the sheep-farming industry expanded enormously, and when the sheep cot and slaughtering station at Sissarluttoq was established, the National Museum ensured that the ruin group was marked with concrete marker posts. Four of these posts were encountered during the survey work; three of them were plotted in their original positions.

FM1 surveyed. Located some way northwest of ruin no. 28.
FM2 surveyed. Located southeast of ruin no. 30.
FM3 surveyed. Located northeast of ruin no. 2.
Cadovius’ domed hut
In the 1970s, a domed hut was built on the coast above the river, for the use of sheep farmers who gathered sheep here in the autumn, after which they were transported out by boat. The hut, which consists of fibreglass elements, was built according to a design by (the Danish) architect Poul Cadovius. It is one of several constructed for use under the extreme Arctic conditions. The fibreglass hut was intended to replace an older building of turf and stone located close by. The latter was, however, recently subjected to comprehensive restoration and is now occasionally used by walkers and hikers.

Fig. 38. The bright red domed hut is a striking marker for anyone wishing to visit the ruin area, which cannot otherwise be seen from the fjord.

Former fix points from previous surveys
Several reference points marked with paint were found during the course of the current mapping survey. The points appear to relate to the survey data produced by K. Krogh and P.E. Pedersen (see the introduction). They were surveyed in with the following references:

“P1” surveyed.

“P3” surveyed. Identification rather uncertain.

“P4” surveyed. Identification rather uncertain.

“P5” surveyed. Identification certain. Marked with purple paint.

“P7” surveyed. Identification certain. Marked.

“P53” surveyed. Identification certain.
Summary and recommendations

Combined with the supplementary surveys undertaken in 2009, a much more detailed picture has now been produced of the area’s topography. The geographical frame for presentation of the ruin group has thereby been augmented and its quality improved.

In 2009, a further two ruin were added to the many new structures located in 2008. It can therefore be concluded that the area has been very intensively exploited. Given the diverse types of structures, their great architectural variation and the differences in the state of preservation of the ruins, it must be presumed that occupation and use extended over a long period. Accordingly, they provide material for many fieldwork campaigns in the future, both topographically and archaeologically. The ruin group, which is one of the largest in the Eastern Settlement in terms of ruin numbers, holds a remarkable scientific potential, not least because the group has been permitted to lie virtually untouched since abandoned by its Norse inhabitants.

The aerial photography undertaken proved to be of great assistance in interpreting the results of the field survey, and the aerial photos that are now available as a consequence will form the foundation of future investigations. Further flights were planned, but technical difficulties led to part of the aerial photography programme being abandoned. Norse settlements E64 and E66, in Igaliku Kujalleq were, however, photographed. The good results obtained provide a good argument for such aerial surveys being resumed in the coming years. In this regard, many thanks are due to Jeppe Möhl, who made himself and his aircraft available for the project.

The ruin area is of a manageable size and extent and all the functions available to a Norse farmstead had access are represented in one place and in a well-preserved form. The locality therefore has great narrative value – a potential that should be exploited to a much greater degree than is the case at present. A precondition for this is, however, that access to the locality is improved. The difficult landing conditions by the fjord could be improved by the construction of a short solid quay, such as those at Hvalsey and Uunartoq.

Information material in the form of simple signage at the locality, supplemented by multilingual folders would provide visitors with the necessary background knowledge and open up this fascinating chapter in Greenland’s history, which constitutes an important element in the marketing of tourism in South Greenland.

Vang 1 December 2010

Hans Kapel
Component part 4

**Tasikuluulik (Vatnahverfi)**
Component part 4 has 14 Norse ruin groups and six modern farms. The largest ruin group is E66, located in Igaliku Kujalleq in the northeasternmost part of the area, which is described in the following.

**Igaliku Kujalleq E66**
In former times, *Kagsiarsuk* was the name of the fertile, scrub-covered plain located innermost in the shallow, eastern branch of Igaliku Fjord, the bed of which is exposed at low tide. As early as the end of the 18th century, it was discovered that Norse settlers had practised agriculture here, and the church ruin was discovered in 1837 by the historically interested clergyman J.F. Jørgensen, who lived in Qaqortoq. Later, Igaliku Kujalleq (i.e. southern Igaliku) became an outlying settlement of Igaliku itself, in that sheep farmer Andreas Egede established himself in the area to the west of the river in 1934, in the vicinity of the Norse ruins. His house no longer exists, but a memorial stone was erected near the place where he settled. More people moved to the area in subsequent years and in the 1960s the population reached about 40 individuals. Since then there has been a steep decline and today only one family lives there permanently.

**Archaeological investigations**
The locality, with its well-preserved church ruin, attracted the attention of archaeologists at a very early stage. During the course of the 19th century, a lively debate unfolded with respect to the nature of the Norse topography. This reached a preliminary conclusion following Gustav Holm’s systematic mapping of the ruins in the Eastern Settlement in 1880 and Finnur Jónsson’s interpretation of the evidence that was presented in 1898. Gardar was identified with the present-day Igaliku, while the ruins at Igaliku Kujalleq were considered to be the Norse settlers’ “Undir Höfdir”. The ruins have been subjected to numerous investigations over time. The most extensive archaeological investigations were by Gustav Holm and Daniel Bruun. Supplementary investigations of the church were carried out by Mogens Clemmensen in 1910 and, more recently, excavations of the house site and the midden area have been undertaken in order to assess their state of preservation (Arneborg et al. in 2009 or later).

In 2009, surveyor Niels Christian Clemmensen, Danish Agency for Culture, undertook a GPS-based survey of the ruin group in collaboration with archaeologist Hans Kapel (fig. 1). Their report contains a description and a status assessment for the individual ruins at the site, which is reproduced in the following (Clemmensen & Kapel 2009).
Description of the individual ruins

Ruin no. 1
Drystone building constructed on bare rock. External dimensions 4.5 x 5 m. Wall thickness 1 m. Only the lowermost courses are preserved and there are no traces of an entrance or other details. The ruin’s near-coastal location at the transition between the very shallow bay to the south and the navigable part of the fjord leads to the assumption that this building served as a warehouse.

In Holm and Bruun’s time, the building had a wall height of more than 2 m, and there was a low doorway in the south wall with a 2.3 m long flagstone as a lintel (fig. 6a).

Immediately to the west of the ruin are the remains of a recent building that undoubtedly was constructed using stone taken from the ruin. This building, which served first as a byre, later as a tool shed and store, was built by Andreas Egede, presumably around 1940 (photographic documentation from 1936 shows the intact ruin). The modern landing place is located below the cliff on which the ruin stands and the wheel tracks leading to this cut the western corner of the ruin.

Fig. 6. Ruin no. 1 drawn by T. Groth in 1880. To the right the woeful remains as they appeared in the summer of 2009.

Ruin no. 2
Church with churchyard and surrounding churchyard wall. The internal dimensions of the church building are c. 4.5 x 14.5 m and the wall thickness is 1.5-2 m. The walls, which are built of selected and in some cases shaped stones laid in regular courses, reach in some places a height of c. 2 m over the surrounding terrain. There are no traces of masonry in the west gable. Whether this gable was built of wood is the subject of an ongoing debate (Holm 1883, 115; Clemmensen 1911, 342; Roussell 1942, 99-101; Krogh 1982, 267-268). A c. 1 m wide doorway is evident in the north wall (cf. fig. 11).

Settlement of the foundations of the north wall has caused the eastern third to lean inwards – a situation that was already described by Holm. In 1935, the overhang measured between the top of the wall and the front edge of the foundations was stated by Roussell to be 28 cm. Although the wall height at that time was though 2.15 m, i.e. probably one course higher than today. There are therefore good grounds to believe that the settlement has become stabilised and there is no immediate risk of collapse. The area of the church interior is 65 m².

The churchyard wall is constructed as a double wall of large stones, with an earthen core. Traces of a passage are evident in the northern and the southern sections, whereas, according to Bruun, there does not appear to have been direct access from the house site located to the east of the church (Bruun 1896, 377). The churchyard wall encloses an area of 630 m².

The ruin was described by Aron Arctander, who visited the ruin in 1779 and already then he suggested that it could be a church building (Ostermann 1944, 105). This view was shared by H.R.
von Eggers, who published parts of Arctander’s journals in 1793. As mentioned in the introduction, he also proposed the theory that this was the location of the Norse episcopal residence of Gardar.

Fig. 7. Overview of the church ruin with the surrounding churchyard wall seen from the northwest. On the far right of the picture is the monument to Andreas Egede. The worn area in the foreground is the track that linked the houses in the oldest part of the settlement, most of which have now disappeared.

Fig. 8. Holm’s plan of the church and immediate surroundings. His excavations are marked and, as can be seen, only a minor part of the dwelling ruin was investigated at that time. In addition to the church, the plan shows the excavated ruin no. 5 and, lowermost, the large byre, ruin no. 3.

Fig. 9. The church seen from the west. There is much to suggest that the gable in the building’s latest phase was built of wood.
Ruin no. 3
The farmstead byre. Substantial stone building surrounded by metre-thick turf walls. The external dimensions of the ruin are c. 10 x 30 m. Three rooms can be identified. An extended entrance passage through the north wall leads to the middle room, where several stall dividers are preserved; a few in an erect position.

The ruin, which is well-preserved though rather collapsed, has been completely or partially excavated and a some of the wall-like earth banks may represent excavation spoil. The inner surface of the north wall has been worn and hollowed out by sheep in several places.

Ruin no. 4
Long, narrow building with a double stone wall and thick, surrounding turf walls. Its total extent is c. 10 x 22 m, though the internal stone construction only measures c. 4 x 13 m. Wall thickness up to
1.2 m. The building is divided into two rooms, and a further small room has been added on to the southwest. The entrance was presumably through the northern wall.

The ruin is well-preserved, but appears to have been completely or partially excavated. However, neither Holm nor Bruun has any information on these investigations. The building presumably served as a sheep cot or goat shed.

**Fig. 5.** The well-preserved ruin no. 4 seen from the WNW. The extension is seen in the foreground.

**Ruin no. 5**
Two-roomed turf- and stone-built building with thick outer walls. The building’s external dimensions are c. 9 x 17 m, but much of what appears to be walls presumably comprises spoil from the excavation in 1880 (see fig. 6). The internal dimensions are c. 3.5 x 12 m. The mode of construction differs in the two rooms, suggesting there were two construction phases. Holm demonstrated the remains of a hearth, indicating that this was a dwelling or workshop.

**Fig. 14.** Ruin no. 5 seen from the SSW. Note the ancient monument marker stone in the middle of the west gable.
Ruin no. 6
Well-preserved, regular building constructed predominantly of stone with a wall thickness of c. 1 m. The building has been divided into two. Its internal dimensions are c. 3.5 x 8 m. Excavated by Holm in 1880. Storage building or outhouse.

Fig. 15. Ruin no. 6 seen from the SSW.

Ruin no. 7
Turf-built building that was probably divided up into two rooms. The ruin is in a poor state of preservation, and trial excavations appear to have been carried out along the inner side of the west wall. The structure has diffuse external contours, while the internal stone walls are visible in several places. Internal dimensions c. 2 x 10 m. Excavated by Holm, who notes that the building has a long entrance. The building’s function is unknown.

Fig. 16. Ruin no. 7 seen from the north. The structural details observed by Holm in 1880 are no longer visible.
Ruin no. 8
Heavily damaged ruin of a building or animal pen, the contours of which it is difficult to determine. It is, however, possible to perceive traces of a curved wall to the west, but the eastern extent appears to be disturbed by wheel tracks running through. The structure’s external transverse dimension is c. 8 m. An excavated pit is evident in the top. The building’s function is unknown.

Fig. 17. The heavily damaged ruin no. 8 can just be perceived as a slight elevation in the terrain. The ruin complex around the church can be seen behind the surveyor. Note also the wheel track running through the ruin area – the settlement’s original main traffic route.

Ruin no. 9
This ruin is presumably intact, apart from two small pits dug inside the northern gable. The external contours of the turf-built walls are rather diffuse, while the course of the internal walls can be identified more or less securely. The building’s internal dimensions are c. 4 x 12 m.

One, possibly two, transverse partition walls are evident. The building is presumably a small byre with a hay barn. The entrance was probably through the western wall.

In his description, Holm only mentions one room, so the extra details must be presumed to have been revealed in connection with Bruun’s investigation.

Fig. 18. Ruin no. 9 seen from the north.

Ruin no. 10
The ruin appears as an almost square building foundation divided in two by a massive central wall. There is much to suggest that, in recent times, a building was constructed on top of the Norse ruin, but it has not proved possible to find documentation for this (settlement map, photos etc.). The ruin is described by Holm as “completely overgrown and very dilapidated”, while the foundations in their present form are clear and regular.
The foundations consist of stone and turf, and an internal wall divides the interior into two rooms of almost equal size. The building’s internal dimensions are c. 6 x 6.5 m, but with the external turf banks it covers an area of c. 15 x 16.5 m. There are no traces of either an entrance or a passage between the two sections. The function of the building is unknown.

Fig. 19. Ruin no. 10 seen from the southwest.

Ruin no. 11
Very well-preserved animal pen in the form of a curved wall built up against a steep cliff face. The wall consists of large boulders and an entrance passage is evident towards the south. The internal dimensions of the animal pen are c. 6 x 6.5 m.

The wall is partially overgrown, but appears otherwise not to have been significantly altered relative to the situation in Holm’s time.

Fig. 20. The small animal pen is located on a plateau some way up the mountainside. Left: The situation in 1880 (Groth) seen from the north. Right: A recent photo of the animal pen seen from the west.

Ruin no. 12
Damaged building remains of turf and stone. The eastern wall, which follows the low slope towards the fjord, is partially eroded away. The ruin lies covered by up to 0.5 m of drift sand. The building’s external dimensions are c. 3 x 6 m. Outhouse or storage building.

Fig. 21. Remains of the eroded east wall are exposed on the slope. The sand-covered building was perhaps abandoned already in the Middle Ages.
Ruin no. 13
Very poorly preserved turf- and stone-built building, the north wall of which is partially eroded away. The remains of the walls are covered by a c. 0.2 m thick layer of drift sand. Its external dimensions are c. 7 x 8 m. At the centre of the ruin is a quadrangular pit measuring c. 1.5 x 2 m – presumably the result of digging in recent times.

Fig. 22. Ruin no. 13 seen from the west. The northwest wall is exposed in the erosion slope, where it is overlain by drift sand.

Ruin no. 14
This refers to a large midden area associated with the dwelling, ruin no. 15. There is little doubt that it also contains as yet undetected remains of walls in this complex dwelling site. The midden and the dwelling cover a total area of c. 50 x 50 m.

Almost all the available sources report that the midden area has been subjected to archaeological investigations, and numerous well-defined pits are evident in its uneven surface. Several of them have been surveyed, but recording of all of them would require renewed archaeological efforts.

Fig. 23. The dwelling site and the midden to the east of the church seen from the air. The numerous archaeological test pits can clearly be seen (see also fig. 21).
Ruin no. 15
The dwelling site has similarly been subjected to numerous excavations, of which the most extensive was that of Daniel Bruun in 1894. Although the stringent and concise ground plan he presents in several of his publications (i.e. 1896, 377) could not be identified during the recent surveys, the main features are still clearly evident. The traces of later excavations, excavation spoil and destruction of the exposed wall remains have, over the last century, blurred the contours. The building complex that can be identified today has an extent of c. 23 x 33 m.

The dwelling site has only been partially excavated and new investigation would doubtless shed new light on the overall building complex.

Fig. 24. Bruun’s plan of the excavated part of the dwelling site. Natural decay and excavation spoil from subsequent investigation obscure the picture when the ruins are viewed today.

Ruin no. 16
Faint contours of a building that has had thick turf walls. The ruin is badly damaged due to wheel tracks being established across the structure; these run SE-NW, i.e. longitudinally along it. Its greatest extent is c. 5.5 x 18 m. A number of visible stones suggest an internal space of 2 x 10 m. There are no traces of an entrance. The thick turf walls indicate that this was a byre.

Fig. 25. Ruin no. 16 seen from the northwest.
Ruin no. 17
This ruin could not be located with certainty. Based on Holm and Bruun’s site plans, it seems likely that the ruin lies partially concealed beneath the sheep-farmer settlement’s school chapel (B-756), which was constructed in the late 1960s. Structural traces are evident from the air immediately to the north of the school. These are, however, considered to be recent. An archaeological trial excavation would probably be necessary to clarify this situation.

Ruin no. 18
Bank of stone and earth forming the southeastern limit of the ruins around the church. The bank extends from solid rock at the foot of the sloping mountainside and runs northeast in the direction of the river mouth, where the large animal pens, ruin nos. 21-23, are located. It is interrupted by a wheel track.

Fig. 26. The outfield bank seen from the west.

Ruin no. 19
Storage building or a small byre built up against a low but steep cliff. The structure consists of a stone wall preserved to a height of several courses with an entrance to the south. A low row of stones divides the building in two. In the southern part is a small stone compartment that is clearly recent. The internal dimensions of the building are c. 3 x 12 m.

Fig. 27. Ruin no. 19 seen from the southeast. The stone structure by the surveying pole is of recent date.

Ruin no. 20
Very dilapidated building remains consisting of thick turf walls. A transverse bank divides the building in two. The area up towards the vertical cliff to the west of the ruin could have been cut off at both sides, thereby forming a small animal pen. The entrance appears to have been in the southeast wall. Byre or small hay barn.

Fig. 28. The ruin is difficult to discern in the lush vegetation. Here it has been photographed from the WSW.
**Ruin no. 21**

Cattle pen located on the western side of the river mouth. The enclosure, which is divided into two, is built of large stones and boulders. The northern corner has been eroded away and no boundary can be detected to the southeast. Bruun’s detailed plan of the pens (1896, 385) shows the beginnings of this erosion.

![Fig. 29. This aerial photo shows the area around the river mouth where Bruun located numerous animal pens and building remains in 1894. On the right is a close-up showing ruin no. 21’s sanded-up earthen bank, which has been broken through by a wheel track in recent times.](image)

The structures on the west side of the river (ruin nos. 21-23) have been much disturbed in recent times as a consequence of traffic with heavy vehicles. On the small promontory lies the settlement’s cemetery, which is surrounded by round cobbles. The locality is also used for beaching boats at high tide. It proved possible to locate again and survey ruin nos. 21 and 22 without any problems, but the position of ruin no. 23 is subject to some uncertainty.

Ruin nos. 25 and 26, on the east side of the river, can be clearly seen due to their conspicuous earthen banks, while ruin no. 24 is slightly more difficult to identify. This was also apparently true in Bruun’s time, because he refers to it as a “delimited site”. The individual structures are described in the following.
Ruin no. 22
Remains of a small animal pen with an almost square ground plan, divided into two parts of almost equal size. Its contours are somewhat diffuse, but there appears to have been an entrance in the southeastern corner. External dimensions c. 13 x 13.5 m. The ruin can be seen on the aerial photo shown in figure 29.

Ruin no. 23
Very little is preserved of this cattle pen, which is shown on Bruun’s detailed plan. This small promontory has, as already mentioned, been affected by many activities in recent times. Fragments of the enclosure could, however, be demonstrated in several places, but it did not prove possible to establish its outline and precise extent. The pen encloses an area of c. 13 x 15 m (see also fig. 32).

Ruin no. 24
This animal pen, which lies on the north side of the river, is badly damaged and the course of its walls can only be seen here and there. It does appear, however, as a relatively flat, even area, delimited by the aforementioned wall remnants and low rocky outcrops. Bruun terms this site “a dug-away site” without offering further description. Estimated extent N-S is c. 15 m, E-W c. 25 m. (cf. fig. 32).

Ruin no. 25
This animal pen, which lies on a south-facing hillside, can be identified without difficulty. It is bounded by an up to 0.3 m high earthen bank, and in its southwestern corner it has a small separate compartment. Where the bank is eroded or worn down, a stone core is visible innermost. The pen measures c. 15 x 25 m.

Fig. 30. Ruin no. 22 seen from the north. The walls can be seen in low relief in the grassy terrain. The plastic pipes lie across the western end.

Fig. 31. The Norse farmer was able to keep a check on the animals from his dwelling, apart from when they roamed freely across the mountainside. The pen seen from the northwest.
**Ruin no. 26**
Small sorting pen or foundations for a building, the walls of which consisted of stone and turf. The north wall forms the boundary of ruin no. 25 (animal pen), and perhaps this structure should be perceived as part of the latter. Alternatively, it could be a small byre. The southeastern wall is cut off by modern wheel tracks. The ruin’s internal dimensions are c. 5.5 x 6 m.

Fig. 32. Ruin nos. 24, 25 and 26 from the air. As can be seen, the track cuts through the east end of ruin no. 26.

**Ruin nos. 27 and 28**
Two hollows, presumably corresponding to the pithouses found and investigated by Bruun (1896, 386ff) and later by Vebæk (unpublished). The hollows lie in a cultivated field and from the air the house sites are clearly evident as patches of markedly more lush vegetation than that in the surroundings. The exact extent of the house sites is difficult to determine, but the largest of them, ruin no. 28, is about 10 m long.

Fig. 33. The two pithouses investigated by Bruun lie within the red circle (see also fig. 35).

Fig. 34. Bruun’s excavation sketches of the pithouses. The finds resulting from the investigations were rather modest. At the base was charcoal and a few burnt bones. Further to these were a soapstone fragment and a small piece of iron.
**Ruin no. 29**
Stone row, possibly the remains of a wall that was built up against the slope to the north, in which case it could represent a small animal pen or, as Holm suggested, a byre. A wheel track has disturbed the stonework in recent times. The remains could be followed over a distance of 9.5 m. No photos.

**Ruin no. 30**
This refers to an area bordering an existing garden and potato plot. Its surface is extremely undulating and the garden soil contains various cultural remains such as bones and worked pieces of soapstone. The soil is also very dark in colour.

There are many recent traces in this area: a potato clamp has been constructed, wind breaks have been built of turf, the area has been levelled etc. It was therefore not possible to determine whether the visible terrain profiles constituted Norse structural remains or traces of recent activity on the spot. The extent of the area is estimated to be c. 30 x 40 m.

Fig. 35. Ruin no. 30, which possibly includes structural remains, is encircled in red. The blue circle encloses the pithouses, ruin nos. 27 and 28. Aerial photo from the northwest.
Other cultural remains
It is likely that people lived here before the arrival of Norse settlers, but the intensive exploitation of the area following the founding of Igaliku Kujalleq as a modern sheep-farming settlement in the mid-1930s has erased possible earlier traces.

Nevertheless, foundations of skin tents are evident on the small hook-shaped promontory to the east of the river, suggesting that this was, for a period, used as a summer camp. Five tent foundations are still visible, but two of them lie so low down that they are partially washed over during spring high water. They comprise classic structures built of turf and stone with a marked platform at the front edge. Their diameter is on average c. 4 m, i.e. they represent the foundations for skin tents. The age of these ruins is unknown but they could possibly be c. 200 years old. A thin culture layer containing bone fragments etc. could be observed downslope from these sites.

Just less than 100 m south of this campsite, a stone-built shooting butt faces the fjord. This is a good place for hunting migrating ducks, and small common seals are also regularly seen migrating with the tide all the way into the coast.

A couple of similar shooting butts or look-out posts were also found on the promontory out towards the open fjord, c. 200 m northwest of ruin no 1.

The age of these structures is difficult to estimate, but finds of cartridge shells confirm that a couple of them were in use until about 30 years ago.
Perspectives and recommendations

In spite of the fact that modern agriculture has been practised on the former fields of the Norse settlers and over the remains of several of their buildings for more than 75 years, it must be said that the ruins and other structures are relatively well-preserved. In particular, the core area around the church is intact and clearly evident even to the non-expert visitor.

The ruin group is remarkable in that it represents more or less all the necessary functions for a medium-sized farmstead in Norse Greenland. The church, which probably was the fourth largest in the Eastern Settlement, surpassed only by the churches at Gardar, Herjolfsnæs and Hvalsey, underlines the importance of the place.

Accordingly, the ruins deserve much greater attention than they have received to date. Because, even though most of the ruins have been diligently investigated and several of them have been excavated in full, nothing has been done so far to tell the history of the place. Since Roussell tidied up the area within and around the church in 1935, the ruins have simply been left and nothing has been done to maintain or to shed light upon and promote these important ancient monuments.

This ruin group has major potential in communication terms, but in order for this to be fully exploited, efforts are required in terms of maintenance and elucidation of the ruins in the core area around the church. Making the dwelling site more visible is essential to conveying an understanding of the farmstead’s functional context. This would require the total or partial emptying of Bruun’s excavation trenches, and the walls which have not yet been investigated should be uncovered. The site is well-suited to training excavations or field courses.

As mentioned in the introduction, Vatnahverfi is a very popular destination for walkers and hikers and there is a basis for marketing the whole of this remarkable area as a cultural landscape in which the agricultural exploitation of nature can be experienced over a very long period of time. The area is today occupied by sheep farms, many of which are able to offer accommodation etc., and one of the former sheep-farmer dwellings in Igaliku Kujalleq now functions as a youth hostel.

It is suggested that, as an initial step, an information board be produced and erected on the plateau above the church. Moreover, a plan for the restoration and future maintenance of the ruins, including possible supplementary fencing, should be formulated in consultation with those who have right of use over the fields in which the ruins lie.
In Sub-area 5 there are seven Norse ruin groups and two active farms. Ruin group E83 – which consists of the ruins of Hvalsey Fjord's church and associated farm – lies on a slightly sloping, south-facing fertile plain below the 1000 m high Qaqortup Qaqqaq (fig. 1). The ruins of the church and the farm's banqueting hall – both stone buildings – are the two best-preserved Norse ruins in Greenland. This is due partly to the fact that the stone from the ruins has not been reused for either Inuit dwellings or the establishment of farms in modern times. A nearby sheep farm, located c. 1.5 km to the east, was not established until the 1950s. Prior to this, an areal scheduling of ruin group E83 was initiated in 1950. This encompasses a 500 m wide zone along the coast and extends respectively 500 m east of the easternmost ruin and 500 m west of the westernmost (Kundgørelser vedrørende Grønlands Styrelse 1950: 205).

In 1723 – two years after his arrival in Greenland – the Norwegian missionary Hans Egede, together with a ship's crew and a group of local Inuit, carried out a superficial excavation in the interior of the church. Subsequently, countless similar small unsystematic excavations were undertaken in the interior of the church by employees in the service of trade and mission, living in Qaqortoq. In 1910, architect Mogens Clemmensen carried out the first professional investigation and recording of the church ruin (Clemmensen 1911). The largest archaeological investigation took place in 1935, when Aage Roussell from the Danish National Museum investigated the dwelling and large parts of the farm complex (Roussell 1941). In 1997, archaeologist Knud J. Krogh and engineer Søren Abrahamsen carried out a detailed investigation of the church's masonry for Greenland National Museum. One of the conclusions from this work was that the leaning south wall was unstable (Krogh & Abrahamsen 1997). The south wall was subsequently partially restored in a project undertaken in 1999, during which an archaeological excavation was also undertaken along the outside of the south wall (Nyegaard 2009). Minor restoration of the church ruin's masonry
subsequently took place in 2000 and 2014 (Høier & Nyegaard 2014). Furthermore, a restoration of the north wall of the banqueting hall was carried out in 2013, as this wall had collapsed in across the interior of the ruin as a direct consequence of the excavation in 1935 (Nyegaard 2014).

In 1996, a fence was erected around the area covered by the areal scheduling of 1950, in order to hinder the access of sheep and horses to the ruin area. In that same year, the local sheep farmer was given permission by the Greenland Home Rule of the time to take into cultivation a new area of land located very close to the ruin area towards the northeast. This consent was annulled in the following year because of the many field stones resulting from field clearance which disfigured the surroundings. Subsequently, these ploughed-up stones were gathered up and thrown into the sea.

In 2004-07, a new hydro-electric power station was established at Qorlortorsuaq, c. 40 km east of Qaqortoq, which supplies the towns of Narsaq and Qaqortoq with electricity. This brought with it a potential threat to the area around Hvalsey Church as the only possible route for the transmission cables was to pass this way. Fortunately, it was decided to bury the cables over a distance of 2 km well to the north of the ruins, near the foot of the 1000 m high Qaqortup Qaqqaa.

In the process of burying the cables from the Qorlortorsuaq hydro-electric station, the 1996 fence around the ruin area was destroyed. It was replaced by a new fence in 2014.

The first professional survey of the ruin area was undertaken in connection with Roussell's excavation of the farmstead in 1935 (fig. 2). A GPS-based survey of the ruin area was carried out in 2004 by surveyor Niels Christian Clemmensen of the Danish Agency for Culture.

Fig. 2. Plan of ruin group E83 at Hvalsey Church, produced by Aage Roussell (1941).

Ruin no. 1: Byre and hay barn

*Status:* Dense, low willow and dwarf birch scrub is spreading through the ruins (figs. 3-4).

*Recommended action:* The encroaching vegetation should be cut back. No other maintenance action required.
Ruin nos. 2-5: Unknown function
Structures observed by Roussell during his investigations in 1935, but which were not investigated.

Ruin no. 6: Dwelling
*Status:* The dwellings stone-built banqueting hall underwent a major restoration in 2013. During the Danish National Museum's excavation of the dwelling and farmstead in 1935, soil and stones from the interior of the banqueting hall were deposited immediately behind the north wall of the building. Pressure from this material caused part of the north wall subsequently to collapse into the interior of the building. With the aid of photos of the intact wall from 1935, it was possible to restore the north wall to its original appearance (fig. 5). In the “old” hall, which stands east of the later stone-built hall, there is encroaching willow and dwarf birch scrub (fig. 6). In the area in and around the dwelling there is luxuriant grass growth and large quantities of sheep droppings and horse dung therefore accumulate during periods when animals from the nearby sheep farm graze the area. While the fence was broken in recent years there were too many animals on the area and this has resulted in a large accumulation of animal dung; this was removed during a tidying-up of the area in July 2014.

*Recommended action:* By agreement with the local sheep farmer, a small flock of sheep grazed the area in the early summer, keeping the vegetation in check. However, the sheep farmer apparently gave up his livestock and sold his sheep in autumn 2014. It would therefore be appropriate to reach an agreement with for example the nearby agricultural research station Upernaviarsuk to order for a few sheep to graze the newly-fenced ruin area in summer. There is also a need for the ruin area to be inspected and tidied up in early summer each year.
Ruin no. 7: Byre and hay barn

_Status_: It was previously common for visitors to make a fire in this ruin. However, after it was tidied up and the stones added to make the fire places were removed in 1996, this form of use has not been observed.

*Recommended action*: A few large stone stall dividers in the byre, which have been removed, can possibly be restored to their original position with the aid of old photos. Otherwise, there are no particular maintenance requirements.

Ruin no. 8: Church and churchyard

_Status_: Several restoration works have been undertaken on Hvalsey Church in recent years. An outward lean of the south wall was corrected in 1999, resulting in the maximum lean of the wall being reduced from 52 to 22 cm (fig. 7) (Nyegaard 2009). The foundations of the eastern half of the south wall were on this occasion partially consolidated with concrete, and measurements carried out subsequently show that the wall is now stable. An archaeological investigation undertaken in advance of the restoration also revealed that the lean is due to the eastern half of the south wall being built on top of earlier graves, which have subsequently settled. In 2000, some of the stones in the northwestern corner of the capping in the west gable were secured against collapse. A corresponding action was implemented in the southwestern corner of the capping in 2014 (fig. 8). In the same year, a number of stones were inserted into the masonry to ensure stability in the places where these had over time either fallen out or been removed.

During periods when sheep have access to the area, they seek shelter in the church at night. In and around the church ruin are therefore large accumulations of sheep dung. The sheep also cause substantial wear to the grass turf inside the church and outside the west gable. As a consequence of the surrounding fence being broken down for a number of years, it was necessary in 2014 to lay new grass turf in part of the church's interior and outside the west gable.

*Recommended action*: A unique feature of Hvalsey Church is its well-preserved chancel window which, more than anything else, bears witness to the place's international contacts around 1300 (fig. 9). Engineer Søren Abrahamsen, who was responsible for restoration of the south wall in 1999, examined the chancel window in 1997 and reached the conclusion that the masonry of the arch was stable. During the restoration in 2014 it was considered, on the basis of the visible lichen
boundaries, that a few stones in it had possibly slipped or been displaced. The chancel window is such an important feature of the church that it should be secured against collapse. This could be achieved with some steel bands which follow the internal course of the chancel arch and which can be installed in tension without being directly attached to the masonry. At the time of writing, it is planned to carry out this work in 2015 or 2016, in collaboration with specialists associated with the Danish Agency for Culture.

Along the outside of the north wall lies an accumulation of soil and stones that is exerting pressure on the masonry (fig. 10) in a similar way to the situation by the north wall of the banqueting hall, which was restored in 2013. In addition to reducing the pressure on the wall, removal of this bank of soil and stones will uncover and render visible the lowermost part of the masonry. Moreover, it will make it more difficult to climb up the masonry via the window recess in the north window.

There is also a need to restore the west side of the window recess in the north wall, where there is a danger of slippage or collapse (fig. 11). This is presumably because it was previously common for visitors to climb up the north wall via the north window. The restoration will be based on early photos and drawings/plans from architect Clemmensen's investigation of the church ruin in 1910.
Ruin no. 9: Storage building (skemma)
The ruin stands on a rocky ridge directly behind the dwelling complex. No maintenance actions required.

Ruin no. 10: Warehouse or storage building on the coastal cliff
No maintenance action required, but the ruin should be kept under observation as it is cut through by the coastal cliff.

Ruin no. 11: Sheep cot or goat shed with hay barn
No maintenance action required.

Ruin no. 12: Possible sheep cot or goat shed
Unexcavated structure. No maintenance action required.

Ruin no. 13: Unidentified ruin
Possible sheep cot or goat shed.

Ruin no. 14: Circular animal pen (“horse corral”)
*Status:* Immediately to the north of the circular animal pen lies a heap of stones from the initial field clearance begun in 1996-97 (fig. 11). Sheep farmer Kalistaaraq Karlsen had been given permission to carry out this clearance, but the work was halted in 1997 after the Premier of Home Rule government, Jonathan Motzfeldt, paid a visit to the site together with the Prime Minister of Iceland.

*Recommended action:* The recent heap of stones beside the ruin should be removed – as was done by a work team from the then Qaqortoq Municipality in the case of the other great quantity of stones resulting from the clearance in 1997.
The surrounding fence
A c. 1400 m long fence was established around the ruin area in 2014 (fig. 12) to replace the earlier fence, erected in 1996, which was broken down. The fence has the aims of 1) keeping sheep and horses outside the ruin area and 2) holding a small flock of sheep inside the ruin area in summer to keep the vegetation in check. The fence runs at a considerable distance from the ruins so it cannot be seen from the central ruin area. By agreement with the local sheep farmer, there are usually a few sheep in the ruin area during the summer period. There will be a requirement for a similar arrangement in the future.
Annexe 3: Action plan for listing of buildings and other cultural heritage protection (in Danish)

i. Action plan for Igaliku houses, Area D1

ii. Action plan for Otto Frederiksen’s house B-316 and his two farrowing barns

iii. Action plan for Henning and Cecilie Lund’s house B-345 in Qanisartuut
Annexe 3:

i. Action plan for Igaliku houses, Area D1
Handlingsplan Igaliku huse, Område D1, Igaliku

Igaliku – Billedet er taget med udsigten mod fjorden set fra kirkegården, Foto Inge B
Formålet med forvaltningsplanen

Forvaltningsplanen vil bidrage til beskyttelse af det kulturelle miljø og at området forvaltes på en fornuftig måde og forhindre unødige konflikter.

Målet med forvaltningsplanen:

• Ejere og brugere og myndigheder får øget viden og forståelse af kulturarvsværdier.

• Ejere og brugere og myndigheder får nødvendig kendskab til lovgivningen, fredningens formål og konsekvenser, samt muligheden for at søge tilladelser og økonomisk tilskud.

• At forvaltningsplanen giver retningslinier for vedligeholdelse og mindre reparationer.

• Udviklingspotentialet for hver bygning vil blive sikret og afklaret, især ved modernisering og efterisolering.

Forvaltningsplanen er ikke juridisk bindende.

Målet er at opstille retningslinjer for både den private og den offentlige forvaltning.

Hvergang der skal udføres arbejder der kræver ansøgning, skal Kujataa søge Grønlands Nationalmuseum & Arkiv om tilladelse.

Forvaltningsplanen giver klare retningslinjer for hvilke bygningsarbejder der kræver ansøgning og hvilken sagsgang der skal følges.

Forvaltningsplanen indeholder ikke tilstandsvurderinger. Det vil dog være en fordel hvis Kujataa udarbejder en drift- og vedligeholdelsesplan med rutiner for tilsyn etc.

Forvaltningsplanen giver overordnede rammer og retningslinier som vil være en forudsætning for den type konkrete arbejder og drift- og vedligeholdelsesplaner.
Beskrivelse af kulturmiljøet Igaliku

Byggeskik

Tørve-/Stenhusenes periode 1778-1924
Stenhusenes periode 1924-1953
Sten-/Træhusenes periode 1953-1960
Typehusenes periode 1960-1980
Selbyggerhusperiode 1980-

Igaliku’s historie og bygningshistorie

Oversigt over epoker og vigtige hændelser i Igaliku’s historie:

0900 - 1540: Norrøn bosættelse
1738 –1878: Anders Olsen
1914 –1940: Amos Egede

**Status Beskrivelse**

Igaliku har 28 huse som er under anden kulturarvsbeskyttelse. De fleste huse er registreret i rapporter, hvor tidligere brug, aktuel brug, bygningshistorie og arkitektur er registreret. Nogle af husene er stadig meget intakte uden større bygningsmæssige ændringer medens andre har gennemgået flere ændringer igennem tid. Disse ændringer kan undertiden dokumenteres med fotos, mens nogle ændringer er vanskelige at beskrive og kræver en grundig arkivundersøgelse eller bygningsarkæologisk undersøgelse.

**Ejerforholdet og brug**

Igaliku er stadig en driftig og aktiv landbrugsbygd, selv om man i de seneste år har oplevet en stor affolkning, således at der i dag kun bor ca. 30 mennesker. En del af de ældre bygninger ejes af efterkommere og slægtninge til de tidligere beboere, som benytter disse som feriehuse.
I det markerede område ses bygningsnumre som alle er kommet under anden kulturarvsbeskyttelse i 2015.
Bevaringsarbejdet frem til i dag

Bevaring og vedligehold på fredede bygninger

De spredte stenhuse ligger på en beskyttet, frodig slette, i bunden af Igaliku Fjord. Byggeskikken i Igaliku skønnes at have en kultur – og bygningshistorisk interesse. Stedet har en særlig bygningskultur med små karakteristiske røde bygninger lavet af den lokale røde Igalkusandsten. En række karakteristiske røde bygninger og husene i Igaliku at de fleste er opført med tunge ydervægge. Sandstenen er karakteristisk for området og har isolerende og varmeakkumulerende egenskaber.

Mange af Igalikus gamle huse er selvbyggerhuse som er opført uden egentlige bygningstegninger eller anvisninger og husenes disponering er et resultat af ”knopskydninger” af større eller mindre udvidelser, ligesom materialer, vinduer og døre mv. ofte er flyttet fra et sted i huset til et andet.

Grundlæggende holdninger til bevaring
Kulturarvenen er en vigtig del af vores samlede kulturarv. Bygningerne dokumenterer tidligere tiders samfundstillin, levevilkår, byggeskik og håndværkteknikker. Gamle bygninger kan ikke som andre bygninger ændres med hvilken som helst materiale og bygningerne er de eneste vidnesbyrd om tidligere tiders byggeskik og arbejdsmetoder. Derfor er det vigtigt at alle bygningsdata fra bygningens opførelse til dags dato er bevaret, fotografier og registreringer er vigtige dokumentationer og derfor er enestående kilder til viden og et uundværligt grundlag for fremtidig forskning og bevaring.

Det mest interessante og værdifulde i en bygnings historie er ofte det ældste dokumenter, der dokumenterer bygningens oprindelige design og brug. De nyere oplysninger kan have historisk værdi og som regel bør man være meget forsigtig med at fjerne noget fra en fredet bygning. Alle
historiske epoker er indarbejdet i det fysiske byggede miljø og fortæller en historie om bygningen og dens udviklingen igennem tiderne.

Råd for vedligehold og istandsættelse, baseret på grundprincipper indenfor bygningsbevaring.

Det vigtigste er:
- Mest mulig af alle dele af bygningen skal bevares og derfor skal indgrebene og udbedringerne være så små som muligt.
- Det er bedre at vedligeholde fremfor at reparere og det er bedre at reparere fremfor at skifte ud.
- Der skal bruges traditionelle materialer og metoder, både ved vedligehold og eventuel udskiftning.
- Skjulte dele af bygningen (konstruktioner) er lige vigtige at bevare som synlige overflader.
- Hvis man vil ændre, er det bedre at føje noget til end at fjerne originale eller gamle bygningsdele. Den bedste bygningshistoriske arkiv er bygningen selv.
- Gamle ombygninger og ændringer af en bygning er ofte vigtige at bevare. De kan fortælle om bygningens historie gennem skiftende stilretninger og brug.
- Når noget fjernes eller ændres, skal dette dokumenteres og nedtegnes og arkiveret og i sjælne tilfælde kan dokumentationen sikres ved lagring af den fjernede bygningsdel.
- Ændringer skal om muligt være genskabelige. Når behovene ændrer sig, kan de nye elementer fjernes og bygningen kan igen fremstå som før ændringen.
Fredningens formål
Selvstyrets kulturmindelov har til formål at sikre en varig beskyttelse af de kulturhistoriske bygninger i hele landet.

Vedligeholdelse - Definition og faglige principper
Formålet med bygninger er, at de skal være anvendelige, få regelmæssige tilsyn og vedligeholdelse. Regelmæssig vedligeholdelse sikrer, at skader konstateres tidligt, udbedres og på den måde skabet den mest økonomisk hensigtsmæssige beskyttelse. På den måde holdes udskifningerne nede og man undgår omfattende reparationer.

Ved at bevare de gamle bygningsdele og overflader af bygningen, bevarer bygningen sin autenticitet; dermed dens videnskabelige kildeværdi og rekreativ værdi.

En kopi kan aldrig fuldt ud erstatte de originale bygningsdele. Selv om kopien er lavet ens, er mindst to dimensioner der gåer tabt:

1. **Alderens værdi**: Spor af de "tidens tand" er væk. Vi kan ikke længere påvirke samme materialer som vores forgængere.

2. **Sandhedens vidnesbyrd**: Hvordan kan vores efterkommere vide, at den kopi af bygningen er præcist som det gamle?
Større vedligeholdelsesarbejder og ændringer

Der skal søges om tilladelse ved større vedligeholdelsesarbejder, reparationer og ændringer i en fredet bygning. Som oftest bliver der givet tilladelse når ændringerne er små og tiltaget er nødvendigt for husets fortsat brug. Grønlands Nationalmuseum & Arkiv’s opgave er at passe på at der ikke bliver gjort så mange ændringer i årenes løb at bygningen til sidst mister sin fredningsværdi.

Eksempler på større vedligeholdelsesarbejder som kræver tilladelse:
- ændring af malingstype eller farve, fjernelse af ældre malingslag, overmaling af dekorationer eller lignende.
- vedligeholdelse af udvendig beklædning som indebærer en betydelig udskiftning af rådskadet træ
- restaurering af rådskadede vinduer
- forbedringer/ændringer af tekniske løsninger

Eksempler på andre ændringer som kræver tilladelse:
- udskiftning af bygningselementer som paneler, vinduer og døre
- tildækning af eksisterende overflader med ny pladebeklædning, tapet eller lignenede
- opsætning eller nedrivning af skillevægge
- etablering af infrastruktur, rørføringer, ventiler etc.
- facadeændringer
- opførelse af tilbygning
- fjerne/udskiftning af vægfast inventar

Et overordnet principe er at alle ændringer skal kunne føres tilbage til det oprindelige. Ændringer og tilføjelser skal kunne fjernes uden at bygningen bliver forringet. I praksis kan det betyde at der er tale om en ny beklædning udenpå det gamle og fx. at der etableret et skillevæg som kan fjernes uden mærkbare spor.

Tilbageføring

Når myndighederne skal vurdere forslag til ændringer, så vil de tage hensyn til hvilken del af perioden eller perioder i bygningens historie som fredningen ønsker at bevare. Hvis der er blevet foretaget ændringer i nyere tid, kan det i nogen tilfælde være aktuel at tilbageføre til tidligere eller et oprindeligt udseende. Dette kan gælde et helt eksteriør, dele af bygningen, enkelte rum eller mindre bygningsdele og detaljer. En tilbageføring er også en ændring som kræver godkendelse hos Grønlands Nationalmuseum & Arkiv.

Følgende præmisser og forudsætninger bør ligge til grund for at en tilbageføring skal kunne vurderes:
- Der foreligger en sikker og god og tilstrækkelig dokumentation (tegninger, fotografier etc.) af den oprindelige situation. Tilbageføring baseret på gætterier kan normalt ikke godtages.
- De nyere tilføjelser som fjernes eller tildækkes, har relativ lav eller underordnet værdi.
- Kulturmindet er ikke ændret for meget. Hus som har fået et nyt tagform, bygningskorpus eller lignende bør bevares som det er. Tilbageføring af vinduestyper og beklædning på en bygning med intakt bygningskorpus, kan derimod være aktuelt. (Det kan for eksempel være at husets beklædning har været lodret, men med tiden er blevet vandret – dette kan tilbageføres til den oprindelige beklædningsform eller vinduers placering og udferelse er ændret og kan tilbageføres på sikkert grundlag fx placering ud fra tegninger, fotografier eller spor i væggen).
Dokumentation af arbejdet
Alle ændringer på en fredet bygning bør dokumenteres og arkiveres. Her bør det redegøres for hvilke arbejder som er gjort, hvilke produkter eller materialer er blevet anvendt etc. Skjulte tekniske løsninger og detaljerede beskrivelser af valg af produkter er eksempler på information som kan lette byggesagsbehandlingen. Rapporten bør indeholde tekst, fotografier, eventuelle skitser og tegninger. For større bygningsændringer /ombygningsarbejder skal der engageres en bygningskyndig person som har den nødvendige viden omkring bygningsarbejder på ældre bygninger.

Konkrete retningslinjer for vedligehold og mindre reparationer

Fundament-, gulv- og vægkonstruktion
Et interessant forhold er det, at der i visse af husene indgår begge former for murkonstruktion. Baggrunden herfor er formentlig, at man i visse tilfælde har kunnet genanvende forrådende murpartier i forladte, muligvis nedbrudte huse. I andre tilfælde optræder de to
typer murværk i huse, som man – i takt med ændrede behov og nye livsmønstre – har ønsket at udvide eller ændre, og hvor tilføjelserne så bliver udført i den teknik, som nu er den gængse. Stenmursteknikken har været i brug op til 1920-erne, hvorefter støbeteknikken tages i anvendelse i 1930-erne.
Fundamentene er stærkt udsatte for fugtbelastning og det er afgørende for at husene står stabilt og at der ikke trænger fugt ind i gulv eller vægkonstruktioner.

Derfor er det vigtigt at man jævnligt sørger for:
• at al bevoksning og terræn holdes nede omkring huset
• at løse sten i fundament og væg repareres så hurtigt som muligt
• at forvitret mørtel og støbte mure repareres så hurtigt som muligt
• at man følger de samme konstruktionsmetoder og byggeteknik

Udendig beklædning
Alle bygninger har hel eller delvis træbeklædning. Husene har malede træbeklædninger, hvoraf nogle stadig har den oprindelige beklædning medens andre har fået ny beklædning.
Beklædningen er en væsentlig del af husets identitet og kan fortælle meget om husets alder og historie. En gammel træbeklædning kan være nedslidt af vejir og vind og derfor se meget dårlig ud, men ofte er trækvaliteten rigtig god idet trækvalitet før træindustrialiseringen er noget af de bedste fordi det var fra meget langsomt voksende træer med mange lag træved. Udendig træbeklædning har flere funktioner. Det beskytter de underliggende konstruktioner mod klimapåvirkning, det forskønner huset og det har en isolerende effekt.

Derfor er det vigtigt at man jævnligt sørger for:
• for at forhindre rådskader, er det vigtigt at man jævnligt konstrollerer for unødige fugtpåvirkninger og sikrer muligheden for udtørring.
• at al vand ledes væk fra huset og husets konstruktioner
• at den er fordelt på 25-30cm. fra terræn til underkant træbeklædning

Undersøgelser for rådskader:
• stick en syl eller kniv ind i træbeklædningen især i den nedre del, fortrinsvis sommeren når beklædningen er tørt. Hvis syl eller kniv møder fast træ og at det er under 2-4mm, så er tilstanden god. Stikker den dybere er der tegn på råd eller andre skader. Vurder alligevel nøje om der er behov for udskiftning. Hvis malingen sidder fast og godt, er træbeklædningen som regel fortsat brugbart. Sørg for at træbeklædningen får lov til at tørre ud efter at havde fjernet fugtkilden.

Udbedring af rådskader:
• Udbedring af lokale rådskader sker ved udlusning/skarring af de rådskadede dele. De nye trædele udføres nøjagtig i form og samme kvalitet som det eksisterende.
• Der må ikke bruges trykimprægneret træ

Rengøring:
• I tilfælde af at der er dannet bevoksninger på træbeklædning, skal disse vaske eller børstes af træværket, eventuelt med almindelig brun sæbe. Undgå alle former for trykspuling, dette kan skade træbeklædningens overflade og give uheldige indtrængninger af fugt og vand ind i konstruktionen.

Maling:
• ældre malingslag må ikke fjernes hvis det ikke sidder løst. Maling som stadig har god vedhæftning kan slibes med et groft sandpaper i vedretningen. Andre metoder for fjernelse af maling tillades ikke.
• Hvis der er begroninger eller meget støv på beklædningen, kan det vaskes af med sæbevand – helst brun sæbe.

• Undgå at bruges vinkelsliber, trykspuling eller andre hårdhændede metoder. Sprækker og mindre huller kan eventuelt tætnes med linoliekit, men i de fleste tilfælde er det bedst at lade disse stå åbne.

• Mal beklædningen og sørg for at beklædningen er tørt før du starter at male.

• Mal i en periode hvor der er varmegrader, helst de dage hvor temperaturen er over 12 grader idet malingen bliver længere tid om at tørre under de 12 varmegrader. Det får også en nedsat holdbarhed når det udsættes for frost under hærdning.

• Benyt en ren linoliemaling uden opløsningsmidler.
Vinduer

Følgende tegning baseret på illustrationer fra gamle træhuse viser de forskellige navne på de vigtigste dele af et vindue.

Vedligeholdelse:
• Konstroller vinduerne mindst 1 gang om året, kontroller maling, kit og beslag og tjej om vinduerne kan åbnes.
• Hjørnebeslag efterses og løse skruer strammes.
• Hold vinduerne lukket ved snefygning og slagregn
• Brug altid stormkrogen når vinduet er åbent.

Vurdering af skader:
• Tjej jævnligt at vinduet kan åbnes og lukkes uden væsentligt modstand. Hvis vinduet går trægt, så analyser årsagen til skaden. Årsager til træghed kan forårsages ved skævheder i huset eller det kan også være at vinduesrammen er blevet skævt på grund af dårlige hængsler/beslag eller løse hjørner.
• Kontroller om træet er friskt ved at stikke med syl eller kniv på udsatte steder medens træværket er tørt, ind i bundkarm, nedre del af rammer og midterpost. Møder du frisk træved ved at sylen eller kniven går højet 2mm ind i træværket, er tilstanden god. Kontroller beslag for tegn på rust eller løse skruer og sidstnævnte kan give indikationer på at træværket under er rådskadet.
Maling og kitning:

- Træoverfladerne males med linoliemaling
- Løst og krakkeleret kit fjernes og erstattes med nyt linoliekit. Bart træ grundes med fortyndet linolie for at give bedre vedhæftning og for at hindre at kittet trækkes ind i træværket.
- Hvis al kit er dårligt og må fjernes, skal dette ske ved en forsigtig udskrabning.
- Vær ekstra forsigtigt hvis vinduet stadig har gamle vinduesglas.
- Glasset skal sættes i kitfals og glasset presses forsigtigt ned i kitlaget. Kitlaget skal være mellem ½ - 1mm tykt og fastgøres med stifter og kittes på ydersiden.
- Når kitoverfladen er blevet tør males det med linoliemaling. Male 1-2mm ind på glasset for at sikre en tæt overgang.

Udbedring af skader:

- Hvis vinduer går trægt, må årsagen findes og derefter udbedres. Hvis det ikke er større opretninger der skal gøres, må man vurdere følgende justeringer: høvle eller tilretning med sandpapir, demontere lister og opretning med trækiler.
- Hvis vinduesrammen går skævt, kan der monteres en ekstra anslagsliste til optagelse af skævheden.
- Små råds skader udbedres ved indpasning af tilsvarende nye dele udført som nøjagtige kopier som det eksisterende. Husk at fjerne mindst mulig trædele.
- Råds skader ved skruehuller og beslag udbedres ved fjernelse af det rådskadede træ eller ved anvendelse af større skruer.
- Hvis der er tale om rustne beslag, skal løs rust fjernes og beslaget skal behandles med rusthæmmende maling. Eventuelt hulrum mellem beslag og træ udfyldes med linoliekit.
- Ødelagte beslag erstat tes med tilsvarende nye kopier eller samme model.

Udskiftning eller opgradering af vinduer
Gamle vinduer kan opleves som kolde og eller man generes af træk. Dette skyldes ofte utætheder i vinduet eller i overgangen mellem karm og væg. For at få en bedre isoleringsevne og hindre træk kan der gøres følgende tiltag:

- Vinduesrammerne afmonteres forsigtigt og der efterisoleres mellem karm og væg.
Yderdøre
Dørenes alder er ofte vanskelig at fastslå men i udgangspunktet bør dørebe bevares og restaureres fremfor at blive skiftet ud. Alt for mange døre er blevet skiftet ud i ældre huse i den tro at de var udsiddte, men de skal bare gennemgå mindre reparationer, justeringer og malerbehandling.

Følgende tegning baseret på illustrationer fra gamle træhuse viser de forskellige navne på de vigtigste dele af en dør.

Fyldningsdør med 3 fyldninger.

Vedligehold, maling, skadesvurdering og udbedringer af trædøre følger i princippet samme retningslinjer som for vinduer.

Der er imidlertid enkelte specielle forhold man bør være opmærksom på:

- Hvis dørhængslerne er for dårlige til at blive restaureret, må de erstattes af nye. Hvis hængslerne har en historisk værdi, bør disse bevares på stedet, og nye kopier isættes i stedet for.
Udbedring af skader:
Gamle døre kan opleves som kolde eller at kulden trækker igennem disse. Ofte er det utætheder i selve døren eller i overgangen mellem karm og væg årsagen til træk. Indvendige døre kan desuden have dårlig brandsikkerhed.
Følgende tiltag kan vurderes:
• Der monteres tætningslister på karm eller dørfals
• Dørinddækninger fjernes forsigtigt og der isoleres med mineralulud mellem karm og væg.

Tagbeklædning
De fleste af husene har tagpapbeklædning og enkelte har tagspån. Mange af tagpaptagene er blevet fornyet i flere omgange siden opførelsen. Utætheder i tagpap skyldes ofte at tagpapet bliver forvitret som følge af vejrpåvirkninger og UV-lys. Pappen kan blive så tyndslidt at der opstår gennemtrængning af fugt eller huller.

Moderne tagpap er diffusionstæt, og er ideelt set bør der derfor være udluftning ved tagkonstruktioner. Behovet for udluftning vil imidlertid være afhængig af tagkonstruktionens opbygning og de lokale forhold i huset.
Teknisk set fungerer det godt uden tagrender og nedløb, men i nogen tilfælde kan der være behov for at lede vandet væk over indgangsdøren. Man kan søge tilladelse til at udføre denne foranstaltning.

Tag med tagpapdækning efterses og vedligeholdes således:
• Tagpappen tjekkes årligt for utætheder, huller eller forvitninger. Udnyt regnvejrsdagene til dette tjrk.
• Se efter lækager især oppe under tag i lofrum og vær opmærksom på at vandet kan vandre langt fra lækagedestet.
• Vær særlig opmærksom ved utætheder ved skorsten og inddækninger
• Små skader i tagpappen kan udbedres med mindre tagplaplapninger
• Vælg en pap som matcher med det eksisterende pap både i struktur og farve
• Vær opmærksom på at papruller skal lagres og transporteres stående

Skorsten
Mange af skorstenene er i brug, men der kan også være enkelte der ikke længere er i brug og kan ses bevaret under tag. Skorstenene er enten mindre støbte skorstene eller muret op af tegl og er gerne pudset udvendigt. Selvom skorstenspiberne er ude af brug, er det vigtigt at bevare dem som en del af husets oprindelige arkitektur og brug.

Forebyggelse/sikring:
• Kontraller skorstenpiberne mindst en gang om året. Tjrk at murstenene er stabile og pudslaget er tæt.
• Skorsten som ikke er i brug, bør være afskærmet eller lukkede i toppen, så sne og regn ikke kommer ned i pibelsbøt.

Vedligehold:
Vurdering af skader:

- Hvis skorstenen har store sprækker eller revner, må man kortlægge årsagen. Dette kan skyldes sætninger og svigt i bærende konstruktioner eller ustabilitet og skader i selve skorstenens murværk. Når årsagen er blevet kortlagt kan sprækker og revner udbedres

Udbedring af skader:

- Hvis skorstenet er ustabilt eller ødelagt af frostsprængninger, må piben helt eller delvis tages ned og mures op igen med samme udseende og med mest mulig genbrug af eksisterende tegl. Skadede tegl skal erstattes med tilsvarende model.
- Pibegennemføringer af rør bør af hensyn til brandfare have en isoleret gennemføring gennem tag – hvis skorstenen er i brug.
- Mindre skader i inddækninger eller beslag kan udbedres, men i mange tilfælde vil en udskiftning være tilrådeligt. Nye inddækninger og beslag skal have samme udførelse og materialekvalitet som det eksisterende.

Bærende konstruktioner


Vær opmærksom på følgende:

Vurdering af skader:

- Se jævnligt efter sætninger og ujævnheder i vægge/gulv/tag og vurder om disse kan skyldes svigt i bærende konstruktioner.
- Ved mistanke om skader, f.eks. efter langvarig fugtpåvirkning, tjekkes konstruktionen. Det kan være nødvendigt at man forsigtigt demonterer beklædningen. Trækonstruktioner tjekkes ved at man stikker en syl eller kniv ind i træværket og hvis disse ikke trænger længere ind i træværket end 2-4mm, så er tilstanden god.

Udbedring af skader:

- Skjulte konstruktioner skal bevares i størst mulig omfang, kun skadede dele fjernes
- Mindre rådskader som ikke påvirker bæreevnen, kan blive stående, forudsat at fugtsituationen er under kontrol. Så længe ny fugt ikke tilføres, så ligger rådet i dvale og gør ingen skade. Rådskadet træ kan eventuelt skarres væk og dette vil reducere faren for opblomstring af rådet.
Indvendige vægbeklædning og paneler
Mange af de ældre huse har indvendig panel på væggene. I nogen tilfælde er denne synlig og i andre tilfælde er panelet tildækket med tapet, pladebeklædning e.a. Disse beklædninger kan have historisk værdi og skal i udgangspunktet bevares som en del af det fredede interiør. I specielle tilfælde kan tilbageføring vurderes.

Vedligeholdelse af den indvendige beklædning:
- Snavs og støv afvaskes med evt. 5-10% salmiakspiritus
- Ældre maling skal ikke fjernes, kun løs maling fjernes og skrabes af i vedretningen og resterende maling slibes med sandpapir i vedretningen.
- Knaster påføres shellak
- Undgå brug af spartel! Sprækker og små huller kan eventuelt tætnes med linoliekit
- Benyt ren linoliemaling uden opløsningsmidler. Malingen påføres med pensel med start oppefra og ned

Trægulve
Mange gulve er imidlertid tildækket med nyere belægninger som vinyl eller linoleum. I andre er gulvene lakeret og det er vigtigt at bevare den oprindelige overfladebehandling.
- Gangzoner kan beskyttes med måtter og vandudsatte zoner med vandtæt måtte eller belægning.
- Matte flader rengøres jævnligt og gerne med ikke for våd gulvklud.
- Brug støvsuger eller kost til at fjerne partikler og småsten som kan føre til ridser
- Ældre malingslag på gulv må ikke fjernes! Kun løs maling fjernes forsigtigt i vedretningen og slibes med sandpapir også i vedretningen
- Knaster påføres shellak
- Undgå brug af spartel! Sprækker og små huller kan eventuelt tætnes med linoliekit
- Brug linoliemaling, eventuelt alkydforstærket linoliemaling i rum med stærk slitage

Små tiltag, skiltning etc.
Der er jævnligt behov for mindre indgreb, som skruehuller og lignende i forbindelse med indretninger og brug af de fredede bygninger. Udvidet kan det være opsætning af skilte og lysarmatur.
Sådanne indgreb kræver normalt ingen tilladelse og det forudsættes at indgrebene gøres så skånsomt som muligt og placeret af nye elementer gøres i forståelse med bygningens arkitektur og historiske kvalitet.

Følgende tiltag kræver tilladelse:
- Opsætning af udendørs skilt større end 2000cm² (f.eks. 40x50cm)

Krav til håndværkere
Generelt bør håndværkere som arbejder på fredede eller anden kulturarvsbeskyttede bygninger have nødvendig kendskab og erfaring med restaureringsarbejde, beherske teknikker og den rette holdning til arbejde med gamle kulturhistoriske bygninger. En erfaren restaureringshåndværker vil vurdere skader og muligheder for udbedring på en hel anden måde end en håndværker med erfaring fra nybyggerier.
I nogen tilfælde vil det være ønskeligt med specialkompetencer for at resultatet skal blive tilfredsstillende. Dette kan være restaurering af vinduer, malerarbejde eller konserveringsarbejde
mm. Når Grønlands Nationalmuseum & Arkiv giver tilladelse til ændringer, kan der sættes vilkår om at den udførende håndværker skal have restaureringskompetence.

**Farve- og bygningshistoriske undersøgelser**

Mange farvebrug er interesserende som historiske kilder. De fortæller om trends igennem tiderne, social status, tilgang til materialer og materialebrug.

Når et hus skal sættes i stand og moderniseres indvendigt, bør det rutinemæssigt afsættes midler og tid til bygningshistoriske undersøgelser. Dette vil være vigtigt og give et godt beslutningsgrundlag for hvordan arbejderne bør udføres, hvilke dele bør bevares etc. Samtidig vil undersøgelsen sikre vigtige informationer for eftertiden. Hvis interiøret tildækkes, f.eks. ved efterisolerering, så er bygningsundersøgelsen den bedste mulighed for at sikre og formidle denne dokumentation.

**Farvekoder:**

*Den bedste maling til gamle bygninger er linoliemaling - den holder længe og er langt den billigste, idet man kun behøver at genmale med linoliemaling hver 15. – 20. år og hvis man vil friske farven op er det hver 3. eller 5. år med grundingsolie (linolieprodukt).*

**Klassiske traditionelle husfarver:**

*Facadefarver:*

- Lysegrå NCS S1002-Y
- Falurød NCS 4941-Y79R (mørkere end svensk rød)
- Svensk rød S 4050-Y80R
- Okkergul NCS 4050-Y25R
- Lys okkergul NCS S 2040-Y20R
- Koboltblå NCS S 4539-R87B
- Grøn NCS 6520-G30Y eller NCS S 8502-G (Portgrøn) eller NCS S 7010-G30Y (Vogngrøn)
- Sort NCS 8505-Y80R
- Perlegrå NCS 1805-G88Y

*Vinduer, døre, stembrædder, rammer etc:*

Hvis NCS S 0300-N eller S 0502-Y eller kombination med ovenstående farver

**Handlingsplan for hver enkelt bygning - Værdivurderingsskema**

Hvert hus skal beskrives og dokumenteres. Her kan man læse om bygningens historie og brug frem til i dag. Eksteriøret beskrives og vigtige bevaringsværdige elementer fremhæves.

**Forholdet mellem kulturmindefolvens bygningsfredningslov og arealovgivningen**

Fredningsloven går foran arealplanlægningsloven

Dette indebærer at et tiltag som overholder arealovgivningen, ikke kan gennemføres hvis det er i konflikt med fredningen. Derfor må der søges hos Grønlands Nationalmuseum & Arkiv om tilladelse eller dispensation fra fredningen.

**Roller, ansvar og sagsgang**

Forvaltningens hovedformål er at enkeltbygninger og det samlede miljø i Igaliku bliver bevaret i henhold til anden kulturarvsbeskyttelse.

Alle parter, både bygningsejer og brugere og den offentlige forvaltning, bør søge at læse interessemodstånder på bedst mulig måde.

Forvaltningsplanen er et vigtigt værktøj i dette arbejde.

Den som ejer en bygning som er under anden kulturarvsbeskyttelse eller en fredet bygning, har fået et ansvar for at tage vare på en vigtig del af landets værdifulde kulturarv.
Grønlands Nationalmuseum & Arkiv har et generelt vejledningsansvar overfor ejere og for den øvrige forvaltning. Grønlands Nationalmuseum & Arkiv skal afgøre om ansøger kan få tilladelse til bygningsarbejder i henhold til Kulturmindeloven, Kap. 3

**Sagsforløb og sagsgang**

Sagsbehandlingen knyttet til en fredet bygning eller anden kulturarvsbeskyttelse skal i udgangspunktet være skriftlig. Dette vil give eentydige referencer for drøftelser, samtidig med at både processen og bygningsmæssige ændringer vil blive arkiveret og bevaret for eftertiden.

**Tidsfrister**

Der er ingen tidsfrister

**Tilladelse efter kulturmindeloven, Inatsisartutlov nr. 11 af 19. maj 2010 om fredning og anden kulturarvsbeskyttelse af kulturminder,**


Generelt skal man ikke have tilladelse fra Grønlands Nationalmuseum & Arkiv til almindelig vedligeholdelse. Det vil sige arbejder, der ikke ændrer på bygningens farver, overflader, materialer, omfang og indretning, og hvor vedligeholdelsesarbejdet ikke indebærer egentlig udskiftning af materiale.

**Krav til ansøgninger**

Ansøgningen skal indeholde: Kort beskrivelse af hvad bygningens hovedkonstruktioner er, fx. huset er opført i bindingsværk for eksempel med 1 på 2 beklædning, tagpap på taget, muret skorsten og sprossevinduer, farve på hus, stern, vinduer/døre og rammer. Endvidere en kort beskrivelse af hvad det er der skal laves og hvor stort det bliver.

**Sanktioner, kulturmindeloven Kap. 7, § 32.**

Det kan medføre bøde at overtræde § 6, stk. 1-3, § 7, stk. 4, § 9, stk. 2, § 11, stk. 2-4, § 16, 1. pkt., § 19, stk. 3, § 21, stk. 3, § 22, stk. 1 og 2, § 24, stk. 3 og 4, § 25, stk. 3, § 27, stk. 2 og regler og vilkår fastsat i medfør af § 3, stk. 3, § 5, stk. 3, § 18, stk. 3, § 19, stk. 4 og § 24, stk. 5.

Stk. 2. Hvor Inatsisartutloven eller forskrifter udstedt i medfør af Inatsisartutloven hjemler idømmelse af bøde, kan bøden pålægges en juridisk person efter reglerne i kriminalloven for Grønland.

Stk. 3. Sker der ikke konfiskation af udstyret, som er opnået ved overtrædelsen, skal der ved udmåling af bøde, tages særligt hensyn til størrelsens af en opnået økonomisk fordel.


**Klageadgang**


Stk. 2. Klageberettiget er:

1) Den, til hvem afgørelsen er rettet.

2) Enhver, der må antages at have en individuel eller væsentlig interesse i sagens udvalg.

Stk. 3. Klagefristen er 4 uger fra den dag, beslutningen er meddelt den, som afgørelsen er rettet til. Rettidig klage har opsættende virkning for den påklagede afgørelse, med mindre klagemyndigheden bestemmer andet.

Stk. 4. Naalakkersuisuts afgørelse kan se bort fra klagefristen overskridelse, såfremt særlige forhold undtagelsesvis tilsiger det.

Stk. 5. Naalakkersuisuts afgørelser kan ikke indbringes for anden administrativ myndighed.
Kilder og aktuelle adresser
Igaliku huse, En opmåling, beskrivelse og tilstandsvurdering af de ældre huse i bygden Igaliku, Narsaq Kommune 1996 af Vibeke Krogh
Forvaltningsplan for de fredede bygninger i Ny-Alesund/Svalbard
Om byggeskik og vedligeholdelse, miljøministeriet – fredningsstyrelsen
Vinduer: tradition, vedligeholdelse og forbedring, Det særlige Bygningssyn, Fredningsstyrelsen
Offentligt byggeri i Grønland 1900-1946 af Jens Christian Madsen

Grønlands Nationalmuseum og Arkiv vil altid være behjælpelig med rådgivning om valg af materialer og arbejdsmetoder.

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Annexe 3:

ii. Action plan for Otto Frederiksen’s house B-316 and his two farrowing barns
Kujataa – a subarctic farming landscape in Greenland
Handlingsplan for Otto Frederiksens hus B-316 og hans to fårestalde B-313 og B-314, Qassiarsuk

Qassiarsuk

Otto Frederiksens hus og de 2 fårestalde

Qassiarsuk-delkort

Qassiarsuk

B-313 Det første fårestald som senere er blevet udvidet mod nord

Otto Frederiksens hus B-316 og de 2 fårestalde B-314 og B-313
## Indhold

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Formålet med forvaltningsplanen
Forvaltningsplanen vil bidrage til beskyttelse af det kulturelle miljø og at området forvaltes på en fornuftig måde og forhindre unødige konflikter.

Målet med forvaltningsplanen:
• Ejere og brugere og myndigheder får øget viden og forståelse af kulturarvsværdier.

• Ejere og brugere og myndigheder får nødvendig kendskab til lovgivningen, fredningens formål og konsekvenser, samt muligheden for at søge tilladelser og økonomisk tilskud.

• At forvaltningsplanen giver retningslinier for vedligeholdelse og mindre reparationer.

• Udviklingspotentialet for hver bygning vil blive sikret og afklaret, især ved modernisering og efterisolering.

Forvaltningsplanen er ikke juridisk bindende.
Målet er at opstille retningslinier for både den private og den offentlige forvaltning.

Hvergang der skal udføres arbejder der kræver ansøgning, skal Kujataa søge Grønlands Nationalmuseum & Arkiv om tilladelse.
Forvaltningsplanen giver klare retningslinjer for hvilke bygningsarbejder der kræver ansøgning og hvilken sagsgang der skal følges.

Forvaltningsplanen indeholder ikke tilstandsvurderinger. Det vil dog være en fordel hvis Kujataa udarbejder en drift- og vedligeholdelsesplan med rutiner for tilsyn etc.
Forvaltningsplanen giver overordnede rammer og retningslinier som vil være en forudsætning for den type konkrete arbejder og drift- og vedligeholdelsesplaner.
Beskrivelse af kulturmiljøet i Qassiarsuk

Byggeskik
Tørve-/Stenhusenes periode 1778-1924
Stenhusenes periode 1924-1953
Sten-/Træhusenes periode 1953-1960
Typehusenes periode 1960-1980
Selvbyggerhusperiode 1980-

Qassiarsuk’s historie og bygningshistorie

Oversigt over epoker og vigtige hændelser i Qassiarsuk’s historie:
0900 - 1540: Norrøn bosættelse
1924 Otto Frederiksen

I Qassiarsuk er der velbevarede levn efter et nordeuropæisk bonde- og fangersamfund, som eksisterede fra slutningen af 900-tallet til dets gådefulde forsvinden i midten af 1400-tallet. Udviklingen af det moderne sydgrønlandske landbrug tog for alvor sin begyndelse i 1924, da den første grønlænder med fåreavl som fuldtids erhverv, Otto Frederiksen, bosatte sig i Qassiarsuk, som er identificeret som Erik den Rødes Brattahlíð, hvor også foregangsmanden for middelalderens nordiske landnam valgte at slå sig ned. Det moderne landbrug var i det første halve århundrede præget af en meget ekstensiv drift, hvor fårene gik ude hele året og mere eller mindre måtte skøtte sig selv. At dette overhovedet kunne lade sig gøre skyldes föhnvindene, de varme faldvinde fra indlandsisen, der i vinterhalvåret med jævne mellemrum smelter sneen så vegetationen bliver tilgængelig for dyrene. En sådan driftsform skabte ikke de store problemer mht. til bevaring af kulturminder fra forgængernes landbrug; i en vis udstødning kan man snarere tale om et ”vedligehold” af det middelalderlige kulturlandskab.


Otto Frederiksen’s hus og de to stenmurde fårestalde er i dag de ældste bebyggelser fra nyere tid i Qassiarsuk. Boligen har igennem tiderne gennemgået mindre ombygninger og ud fra fotos fra 70-erne ses det, at huset tidligere har haft en større tilbygning mod øst og tilbygningen har været anvendt som kiosk.
**Status Beskrivelse**

Otto Frederiksens hus blev genopført i 1933 som et bindingsværkshus med (en-på-to) bræddebeklædt facade og er beliggende tæt på bygdens elvudløb med en østvestvendt længderetning.

Huset har et lille vindfang mod syd, i dag med en indgangsdør placeret på vestsiden af vindfanget. På ældre fotos har indgangsdøren været placeret på østsiden af vindfanget. Tagfladen er udført med tjærepap.

Bygningen fremstår i dag med hvidmalede facader, hvidmalede vinduer med grønne karme, hvidmalet hoveddør med grønne karme og med grønmalet revleder i den sydvendte gavltrekant. Taget er belagt med sort tjærepap og har grønmalet vindskeder. Bygningen har et muret skorsten i rød, blank mur uden sokkel og udkragning. Fundamentet er af syldsten, som i dag er stedvist forstærket med anvendelse af beton.

Ejerforholdet og brug
Otto Frederiksens hus og de to fårestalde ejes af familien og huset bruges i dag som et lille museum for Qassiarsuk og de to fårestalde bruges stadig i læmningssæsonen og som depot. Huset har haft forskellige funktioner gennem sin levetid og har bl.a. været kiosk og forsamlingshus. Huset fik en lille tilbygning mod øst i 1960, men denne er igen blevet nedrevet i 1990-erne, da man besluttede sig for at indrette huset til museum.

Qassiarsuk 1970, Foto NKA
Bevaringsarbejdet frem til i dag

Bevaring og vedligehold på fredede bygninger
Otto Frederiksens hus og de 2 fårestald har stor kultur- og bygningshistorisk interesse og huset opført som et bindingsværkshus og de to fårestalde er opført med lokale stenmaterialer.

Grundlæggende holdninger til bevaring
Kulturarven er en vigtig del af vores samlede kulturarv. Bygningerne dokumenterer tidligere tiders samfundssammenhold, levevilkår, byggeskik og håndværksteknikker. Gamle bygninger kan ikke som andre bygninger ændres med hvilken som helst materiale og bygningerne er de eneste vidnesbyrd om tidligere tiders byggeskik og arbejdsmetoder. Derfor er det vigtigt at alle bygningsdata fra bygningens opførelse til dags dato er bevaret, fotografier og registreringer er vigtige dokumentationer og derfor er enestående kilder til viden og et uundværligt grundlag for fremtidig forskning og bevaring.

Det mest interessante og værdifulde i en bygnings historie er ofte det ældste dokumenter, der dokumenterer bygningens oprindelige design og brug. De nyere oplysninger kan have historisk værdi og som regel bør man være meget forsigtig med at fjerne noget fra en fredet bygning. Alle historiske epoker er indarbejdet i det fysiske byggede miljø og fortæller en historie om bygningen og dens udviklingen igennem tiderne.

Råd for vedligehold og istandsættelse, baseret på grundprincipper indenfor bygningsbevaring.

Det vigtigste er:

• Mest mulig af alle dele af bygningen skal bevares og derfor skal indgrebene og udbedringerne være så små som muligt.

• Det er bedre at vedligeholde fremfor at reparere og det er bedre at reparere fremfor at skifte ud.

• Der skal bruges traditionelle materialer og metoder, både ved vedligehold og eventuel udskiftning.

• Skjulte dele af bygningen (konstruktioner) er lige vigtige at bevare som synlige overflader.

• Hvis man vil ændre, er det bedre at fjerne noget til end at fjerne originale eller gamle bygningsdele. Den bedste bygningshistoriske arkiv er bygningen selv.

• Gamle ombygninger og ændringer af en bygning er ofte vigtige at bevare. De kan fortælle om bygningens historie gennem skiftende stilretninger og brug.

• Når noget fjernes eller ændres, skal dette dokumenteres og nedtegnes og arkiveret og i sjældne tilfælde kan dokumentationen sikres ved lagring af den fjernede bygningsdel.

• Ændringer skal om muligt være genskabelige. Når behoven ændrer sig, kan de nye elementer fjernes og bygningen kan igen fremstå som før ændringen.
Fredningens formål
Selvstyrets kulturmindelov har til formål at sikre en varig beskyttelse af de kulturhistoriske bygninger i hele landet.

Enk Røde Frederiksen, 88 år og er søn af Otto Frederiksen - fortæller om barndomserindringer siddende i stadsstuen foto Inge B.
**Vedligeholdelse - Definition og faglige principper**

Formålet med bygninger er, at de skal være anvendelige, få regelmæssige tilsyn og vedligeholdelse. Regelmæssig vedligeholdelse sikrer, at skader konstateres tidligt, udbedres og på den måde skabes den mest økonomisk hensigtsmæssige beskyttelse. På den måde holdes udskifningerne nede og man undgår omfattende reparationer.

Ved at bevare de gamle bygningsdele og overflader af bygningen, bevarer bygningen sin autenticitet; dermed dens videnskabelige kildeværdi og rekreativ værdi.

En kopi kan aldrig fuldt ud erstatte de originale bygningsdele. Selv om kopien er laved ens, er mindst to dimensioner der går tabt:

1. **Alderens værdi:** Spor af de "tidens tand" er væk.
   Vi kan ikke længere påvirke samme materialer som vores forgængere.

2. **Sandhedens vidnesbyrd:** Hvordan kan vore efterkommere vide, at den kopi af bygningen er præcist som det gamle?

**Større vedligeholdelsesarbejder og ændringer**

Der skal søges om tilladelse ved større vedligeholdelsesarbejder, reparationer og ændringer i en fredet bygning. Som oftest bliver der givet tilladelse når ændringerne er små og tillæg er nødvendigt for husets fortsatte brug. Grønlands Nationalmuseum & Arkiv’s opgave er at passe på at der ikke bliver gjort så mange ændringer i årenes løb at bygningen til sidst mister sin fredningsværdi.

**Eksempler på større vedligeholdelses/istandsættelsesarbejder som kræver tilladelse:**
- ændring af malingstype eller farve, fjernelse af ældre malingslag, overmaling af dekorationer eller lignende.
- vedligeholdelse af udvendig beklædning som indebærer en betydelig udskiftning af rådskadet træ
- restaurering af rådskadede vinduer
- forbedringer/ændringer af tekniske løsninger

**Eksempler på andre ændringer som kræver tilladelse:**
- udskiftning af bygningselementer som paneler, vinduer og døre
- tildækning af eksisterende overflader med ny pladebeklædning, tapet eller lignenede
- opsætning eller nedrivning af skillevægge
- etablering af bad eller større bygningsmæssige ændringer
- etablering af infrastruktur, rørføring, ventiler etc.
- facadeændringer
- opførelse af tilbygning
- fjernelse/udskiftning af vægfast inventar

Et overordnet princip er at alle ændringer skal kunne føres tilbage til det oprindelige. Ændringer og tilføjelser skal kunne fjernes uden at bygningen bliver forringet. I praksis kan det betyde at der er tale om en ny beklædning udenpå det gamle og fx. at der etableret et skillevæg som kan fjernes uden mærkbare spor.
**Tilbageføring**

Når myndighederne skal vurdere forslag til ændringer, så vil de tage hensyn til hvilken del af perioden eller perioder i bygningens historie som fredningen ønsker at bevare. Hvis der er blevet foretaget ændringer i nyere tid, kan det i nogen tilfælde være aktuel at tilbageføre til tidligere eller et oprindeligt udseende. Dette kan gælde et helt eksteriør, dele af bygningen, enkelte rum eller mindre bygningsdele og detaljer. En tilbageføring er også en ændring som kræver godkendelse hos Grønlands Nationalmuseum & Arkiv.

Følgende præmissen og forudsætninger bør ligge til grund for at en tilbageføring skal kunne vurderes:

- Der foreligger en sikker og god og tilstrækkelig dokumentation (tegninger, fotografier etc.) af den oprindelige situation.
  - Tilbageføring baseret på gætterier kan normalt ikke godtages.
- De nyere tilføjelser som fjernes eller tildækkes, har relativ lav eller underordnet værdi.
- Kulturmindet er ikke ændret for meget. Hus som har fået et nyt tagform, bygningskorpus eller lignende bør bevares som det er. Tilbageføring af vinduestyper og beklædning på en bygning med intakt bygningskorpus, kan derimod være aktuelt. (Det kan for eksempel være at husets beklædning har været lodret, men med tiden er blevet vandret – dette kan tilbageføres til den oprindelige beklædningsform eller vinduers placering og udførelse er ændret og kan tilbageføres på sikkert grundlag fx placering ud fra tegninger, fotografier eller spor i væggen).

**Dokumentation af arbejdet**

Alle ændringer på en fredet bygning bør dokumenteres og arkiveres. Her bør det redegøres for hvilke arbejder som er gjort, hvilke produkter eller materialer er blevet anvendt etc. Skjulte tekniske løsninger og detaljerede beskrivelser af valg af produkter er eksempler på information som kan lette byggesagsbehandlingen. Rapporten bør indeholde tekst, fotografier, eventuelle skitser og tegninger. For større bygningsændringer /ombyningsarbejder skal der engageres en bygningskyndig person som har den nødvendige viden omkring bygningsarbejder på ældre bygninger.

**Konkrete retningslinjer for generel vedligehold og mindre reparationer**


Fredning og anden kulturarvsbeskyttelse skal respekteres af alle rettighedshavere over det kulturhistoriske område, uanset hvornår rettigheden er stiftet.

**Fundament-, gulv- og vægkonstruktion**


B-313 og B-314, Gl. færestalde
Ydervæggene og fundament formodes opført i et stykke og er først under terræn i begge færestalde og er opført af lokalt stenmateriale. Ved opmuringen er den enkelte sten valgt og placeret således, at murens yderside danner en nogenlunde jævn, loddret flade. Muren er opbygget uden fast skiftegang af uregelmæssige sten. Indersiden får derimod en anderledes springende murflugt, hvor tykkelsen på muren kan variere fra ca. 30-70cm. Fodetruget som løber i hele rummets midte er placeret på et støbt fundament og for B-314 vedkommende er der desuden høhække med trug langs begge ydervægge.

Derfor er det vigtig at man jævnligt sørger for:
• at al bevoksning og terræn holdes nede omkring huset
• at løse sten i fundament og væg repareres så hurtigt som muligt
• at forvitret mørtel og støbte mure repareres så hurtigt som muligt med hydraulisk kalkmørtel
• at man følger de samme konstruktionsmetoder og byggeteknik

Udvendig beklædning på gavle, stern og vinduesrammer m.m.
Beklædningen er en væsentlig del af husets identitet og kan fortælle meget om husets alder og historie. En gammel træbeklædning kan være nedslidt af vejr og vind og derfor se meget dårlig ud, men ofte er trækvaliteten rigtig god idet trækvalitet før træindustrialiseringen er noget af de bedste fordi det var fra meget langsomt voksende træer med mange lag træved. Udvendig træbeklædning har flere funktioner. Det beskytter de underliggende konstruktioner mod klimapåvirkning, det forskønner huset og det har en isolerende effekt.

Derfor er det vigtig at man jævnligt sørger for:
• for at forhindre rådskader, er det vigtigt at man jævnligt kontrollerer for unødige fugtpåvirkninger og sikrer muligheden for udtrørring.
• at vand ledes væk fra huset og husets konstruktioner
• at der bør være min. 25-30cm. fra terræn til underkant træbeklædning, fx ved bundstykke under porte og døre.

Undersøgelser for rådskader:
• stik en syl eller kniv ind i træbeklædningen især i den nedre del, fortrinsvis om sommeren når beklædningen er tørt. Hvis syl eller kniv møder fast træ og at det er under 2-4mm, så er tilstanden god. Stikker den dybere er der tegn på råd eller andre skader. Vurder alligevel nøje om der er behov for udskiftning. Hvis malingen sidder fast og godt, er træbeklædningen som regel fortsat brugbart. Sørg for at træbeklædningen får lov til at tørre ud efter at havde fjernet fugtkilden.

Udbedring af rådskader:
• Udbedring af lokale rådskader sker ved udlusning/skarring af de rådskadede dele. De nye træede udføres nøjagtig i form og samme kvalitet som det eksisterende.
• Der må ikke bruges trykimprægneret træ
Rengøring:

- I tilfælde af at der er dannet bevoksninger på træbeklædning, skal disse vaske eller børstes af træværket, eventuelt med almindelig brun sæbe. Undgå alle former for trykspuling, dette kan skade træbeklædningens overflade og give uheldige indtrængninger af fugt og vand ind i konstruktionen.

Maling:

- Hvis der er begroninger eller meget støv på beklædningen, kan det vaskes af med sæbevand – helst brun sæbe.
- Undgå at bruges vinkelsliber, trykspuling eller andre hårdhændede metoder. Sprækker og mindre huller kan eventuelt tætnes med linoliekit, men i de fleste tilfælde er det bedst at lade disse stå åbne.
- Mal beklædningen og sørg for at beklædningen er tørt før du starter at male.
- Mal i en periode hvor der er varmegrader, helst de dage hvor temperaturen er over 12 grader idet malingen bliver længere tid om at tørre under de 12 varmegrader. Det får også en nedsat holdbarhed når det udsættes for frost under hærdning.
- Benyt en ren linoliemaling uden opløsningsmidler.
Vinduer
Alle vinduer på de fredede bygninger er udført af træ. De fleste har ældre vinduer, dels de oprindelige og dels kopier og andre er erstattet med selbyg af forhåndenværende materialer.

Vedligeholdelse:
- Konstroller vinduerne mindst 1 gang om året, kontroller maling, kit og beslag og tjek om vinduerne kan åbnes.
- Hjørnebeslag efterses og løse skruer strammes.
- Hold vinduerne lukket ved snefygning og slagregn
- Brug altid stormkrogen når vinduet er åbent.

Vurdering af skader:
- Tjek jævnligt at vinduet kan åbnes og lukkes uden væsentligt modstand. Hvis vinduet går trægt, så analyser årsagen til skaden. Årsager til træghed kan forårsages ved skævheder i huset eller det kan også være at vinduesrammen er blevet skævt på grund af dårlige hængsler/beslag eller løse hjørner.
- Kontroller om træet er friskt ved at stikke med syl eller kniv på udsatte steder medens træværket er tørt, ind i bundkarm, nedre del af rammer og midterpost. Møder du frisk træved ved at sylen eller kniven går højst 2mm ind i træværket, er tilstanden god. Kontroller beslag for tegn på rust eller løse skruer og sidstnævnte kan give indikationer på at træværket under er rådskadet.
Maling og kitning:
• Træoverfladerne males med linoliemaling
• Løst og krakkeleret kit fjernes og erstattes med nyt linoliekit. Bart træ grundes med fortyndet linolie for at give bedre vedhæftning og for at hindre at kittet trækkes ind i træværket.
• Hvis al kit er dårligt og må fjernes, skal dette ske ved en forsigtig udskrabning.
• Vær ekstra forsigtigt hvis vinduet stadig har gamle vinduesglas.
• Glasset skal sættes i kitfals og glasset presses forsigtigt ned i kitlaget. Kitlaget skal være mellem ½ - 1mm tykt og fastgøres med stifter og kittes på ydersiden.
• Når kitoverfladen er blevet tør males det med linoliemaling. Mal 1-2mm ind på glasset for at sikre en tæt overgang.

Udbedring af skader:
• Hvis vinduer går trægt, må årsagen findes og derefter udbedres. Hvis det ikke er større opretninger der skal gøres, må man vurdere følgende justeringer: høvle eller tilretning med sandpapir, demontere lister og opretning med trækiler.
• Hvis vinduesrammen går skævt, kan der monteres en ekstra anslagsliste til optagelse af skævheden.
• Små rådskader udbedres ved indpasning af tilsvarende nye dele udført som nøjagtige kopier som det eksisterende. Husk at fjerne mindst mulig trædele.
• Rådskader ved skruehuller og beslag udbedres ved fjernelse af det rådskadede træ eller ved anvendelse af større skruer.
• Hvis der er tale om rustne beslag, skal løs rust fjernes og beslaget skal behandles med rusthæmmende maling. Eventuelt hulrum mellem beslag og træ udfyldes med linoliekit.
• Ødelagte beslag erstattes med tilsvarende nye kopier eller samme model.

Udskiftning eller opgradering af vinduer
Gamle vinduer kan opleves som kolde og eller man generes af træk. Dette skyldes ofte utætheder i vinduet eller i overgangen mellem karm og væg. For at få en bedre isoleringsevne og hindre træk kan der gøres følgende tiltag:
• Der monteres tætningslister på rammerne. Hvis der er tale om dobbelte vinduer, skal der kun monteres tætningslister på den indre del. Normalt skal den ydre del af vinduet have noget udluftning for at reducere kondens. Dette må imidlertid vurderes særskilt især mod risikoen for snefygtning mellem glassene. I nogen tilfælde er det nødvendigt med tætningslister både på den indre og ydre ramme.
• Vinduesrammerne afmonteres forsigtigt og der efterisoleres mellem karm og væg.
Døre
Dørenes alder er ofte vanskelig at fastslå men i udgangspunktet bør dørene bevares og restaureres fremfor at blive skiftet ud. Alt for mange døre er blevet skiftet ud i ældre huse i den tro at de var udslidte, men de skal bare gennemgå mindre reparationer, justeringer og malerbehandling.

Følgende tegning baseret på illustrationer fra gamle træhuse viser de forskellige navne på de vigtigste dele af en dør.

Fyldningsdør med 3 fyldninger.

Vedligehold, maling, skadesvurdering og udbedringer af trædøre følger i princippet samme retningslinjer som for vinduer.
Der er imidlertid enkelte specielle forhold man bør være opmærksom på:

- Hvis dørhængslerne er for dårlige til at blive restaureret, må de erstattes af nye. Hvis hængslerne har en historisk værdi, bør disse bevares på stedet, og nye kopier isættes i stedet for.
- Ældre låsekasser og beslag som har særlig bevaringsværdi, skal bevares. Hvis låsen fungerer dårligt, supper med en ny over eller under den gamle. Lås uden bevaringsværdig erstattes af nye med samme placering og udtryk.
**Udbedring af skader:**
Gamle døre kan opleves som kolde eller at kulden trækker igennem disse. Ofte er det utætheder i selve døren eller i overgangen mellem karm og væg årsagen til træk. Indvendige døre kan desuden have dårlig brandsikkerhed.

Følgende tiltag kan vurderes:
- Der monteres tætningslister på karm eller dør fals
- Dørinddækninger fjernes forsigtigt og der isoleres med mineraluld mellem karm og væg.

**Tagbeklædning**

Moderne tagpap er diffusionstæt, og er ideelt set bør der derfor være udluftning ved tagkonstruktionen. Behovet for udluftning vil imidlertid være afhængig af tagkonstruktionens opbygning og de lokale forhold i bygningerne.

**Tag med tagpapdækning efters og vedligeholdes således:**
- Tagpappen tjekkes årligt for utætheder, huller eller forvitring. Udnyt regnvejrsdage til dette tæt.
- Se efter lækager især under tag i loftrom og vær opmærksom på at vandet kan vandre langt fra lækageredet.
- Vær særlig opmærksom ved utætheder ved skorsten og inddækninger.
- Små skader i tagpappen kan udbedres med mindre tagpaplapninger.
- Vær særlig opmærksom på at papruller skal lagres og transporteres står.

**Skorsten**
B-316 Otto Frederiksen's husskorsten er ikke længere i brug, men er stadig intakt. Skorstenene er muret op af tegl og er ikke pudset udvendig.
Selvom skorstenspibene er ude af brug, er det vigtigt at bevare dem som en del af husets oprindelige arkitektur og brug.

**Forebyggelse/sikring:**
- Konstruktører skorstenpiberne mindst en gang om året. Tæt at murstenene er stabile og pudslaget er tæt.
- Skorsten som ikke er i brug, bør være afskærmet eller lukkede i toppen, så sne og regn ikke kommer ned i pibeløbet.

**Vedligehold:**

**Vurdering af skader:**
Udbedring af skader:

- Hvis skorstenet er ustabilt eller ødelagt af frostsprængninger, må piben helt eller delvis tages ned og mures op igen med samme udseende og med mest mulig genbrug af eksisterende tegl. Skadede tegl skal erstattes med tilsvarende model.
- Pibegennemføringer af rør bør af hensyn til brandfare have en isoleret gennemføring gennem tag – hvis skorstenen er i brug.
- Mindre skader i inddækninger eller beslag kan udbedres, men i mange tilfælde vil en udskiftning være tilrådeligt. Nye inddækninger og beslag skal have samme udførelse og materialekvalitet som det eksisterende.

Bærende konstruktioner


Vær opmærksom på følgende:

Vurdering af skader:

- Se jævnlig efter sætninger og ujævnheder i vægge/gulv/tag og vurder om disse kan skyldes svigt i bærende konstruktioner.
- Ved mistanke om skader, f.ex. efter langvarig fugtpåvirkning, tjekkes konstruktionen. Det kan være nødvendigt at man forsigtigt demonterer beklædningen. Trækonstruktioner tjekkes ved at man stikker en syl eller kniv ind i træværket og hvis disse ikke trænger længere ind i træværket end 2-4mm, så er tilstanden god.

Udbedring af skader:

- Skjulte konstruktioner skal bevares i størst mulig omfang, kun skadede dele fjernes
- Mindre rådskader som ikke påvirker bæreevnen, kan blive stående, forudsat at fugtsituationen er under kontrol. Så længe ny fugt ikke tilføres, så ligger rådet i dvale og gør ingen skade. Rådskadet træ kan eventuelt skarres væk og dette vil reducere faren for opblomstring af rådet.

Indvendige vægbeklædning og paneler

Vedligeholdelse af den indvendige beklædning:

- Snavs og støv afvaskes med evt. 5-10% salmiakspiritus
- Ældre maling skal ikke fjernes, kun løs maling fjernes og skrabes af i vedretningen og resterende maling slibes med sandpapir i vedretningen.
- Knaster påføres shellak
- Undgå brug af spartel! Sprækker og små huller kan eventuelt tættes med linoliekit
- Benyt ren linoliemaling uden opløsningsmidler. Malingen påføres med pensel med start oppefra og ned
Trægulve
- Gangzoner kan beskyttes med måtter og vandudsatte zoner med vandtæt måtte eller belægning.
- Matte flader rengøres jævnligt med ikke-forvæltede gulvkluder.
- Brug støvsuger eller kost til at fjerne partikler og småsten som kan føre til ridser.
- Knaster påføres shellak.
- Undgå brug af spartel! Sprækker og små huller kan eventuelt tætnes med linoliekit.
- Brug linoliemaling, eventuelt alkydforstærket linoliemaling i rum med stærkt slidte.

Små tiltag, skiltning etc.
Der er jævnligt behov for mindre indgreb, som skruehuller og lignende i forbindelse med indretninger og brug af de fredede bygninger.

Fælles tiltag kræver tilladelse:
- Opsætning af udendørs skilt større end 2000cm² (f.eks. 40x50cm)

Kværl til håndværkere
Generelt bør håndværkere som arbejder på fredede eller anden kulturavlsbeskyttede bygninger have nødvendig kendskab og erfaring med restaureringsarbejde, beherske teknikker og den rette holdning til arbejde med gamle kulturhistoriske bygninger. En erfaren restaureringshåndværker vil vurdere skader og muligheder for udbredning på en hel anden måde end en håndværker med erfaring fra nybyggerier.

I nogen tilfælde vil det være ønskeligt med specialkompetencer for at resultatet skal blive tilfredsstillende. Dette kan være restaurering af vinduer, malerarbejde eller konserveringsarbejde mm. Når Grønlands Nationalmuseum & Arkiv giver tilladelse til ændringer, kan der sættes vilkår om at den udførende håndværker skal have restaureringskompetence.

Farve- og bygningshistoriske undersøgelser
Mange farvebrug er interessante som historiske kilder. De fortæller om trends igennem tiderne, social status, tilgang til materialer og materialebrug.

Farvekoder:
Den bedste maling til gamle bygninger er linoliemaling - den holder længe og er langt den billigste, idet man kun behøver at genmale med linoliemaling hver 15. – 20. år og hvis man vil friske farven op er det hver 3. eller 5. år med grundsolesol.

Vinduer: NCS farvekode S 0300-N
Facademaling: NCS farvekode S 0300-N eller Lysegrå NCS S1002-Y
Vinduesrammer, sternbrædder og døre: Vogngrøn NCS S 7010-G30Y
**Handlingsplan for hver enkelt bygning - Værdivurderingsskema**

Hvert hus skal beskrives og dokumenteres. Her kan man læse om bygningens historie og brug frem til i dag. Eksteriøret beskrives og vigtige bevaringsværdige elementer fremhæves.

**Forholdet mellem kulturmindeelovens bygningsfredningslov og arealovgivningen**


Dette indebærer at et tiltag som overholder arealovgivningen, ikke kan gennemføres hvis det er i konflikt med fredningen. Derfor må der søges hos Grønlands Nationalmuseum & Arkiv om tilladelse eller dispensation fra fredningen.

**Roller, ansvær og sagsgang**

Forvaltningens hovedformål er at enkeltbygninger og det samlede miljø i Igaliku bliver bevaret i henhold til anden kulturarvsbeskyttelse.

Alle parter, både bygningsejer og brugere og den offentlige forvaltning, bør søge at løse interessemodfældninger på bedst mulig måde.

Forvaltningsplanen er et vigtigt værktøj i dette arbejde. Den som ejer en bygning som er under anden kulturarvsbeskyttelse eller en fredet bygning, har fået et ansvar for at tage vare på en vigtig del af landets værdifulde kulturarv.

Grønlands Nationalmuseum & Arkiv har et generelt vejledningsansvar overfor ejere og for den øvrige forvaltning. Grønlands Nationalmuseum & Arkiv skal afgøre om ansøger kan få tilladelse til bygningsarbejder i henhold til Kulturmindeeloven, Kap. 3

**Sagsforløb og sagsgang**

Sagsbehandlingen knyttet til en fredet bygning eller anden kulturarvsbeskyttelse skal i udgangspunktet være skriftlig. Dette vil give eendygtige referencer for drøftelser, samtidig med at både processen og bygningsmæssige ændringer vil blive arkiveret og bevaret for eftertiden.

**Tidsfrister**

Der er ingen tidsfrister

**Tilladelse efter kulturmindeeloven, Inatsisartutlov nr. 11 af 19. maj 2010 om fredning og anden kulturarvsbeskyttelse af kulturminder,**


Generelt skal man ikke have tilladelse fra Grønlands Nationalmuseum & Arkiv til almindelig vedligeholdelse. Det vil sige arbejder, der ikke ændrer på bygningens farver, overflader, materialer, omfang og indretning, og hvor vedligeholdelsesarbejdet ikke indebærer egentlig udskiftning af materiale.

**Krav til ansøgninger**

Ansøgningen skal indeholde: Kort beskrivelse af hvad bygningens hovedkonstruktioner er, fx. huset er opført i bindingsværk for eksempel med 1 på 2 beklædning, tagpap på taget, muret skorsten og sprossevinduer, farve på hus, stern, vinduer/døre og rammer.

Endvidere en kort beskrivelse af hvad det er der skal laves og hvor stort det bliver.

**Sanktioner, kulturmindeeloven Kap. 7, § 32.**

Det kan medføre bøde at overtræde § 6, stk. 1-3, § 7, stk. 4, § 9, stk. 2, § 11, stk. 2-4, § 16, 1. pkt., § 19, stk. 3, § 21, stk. 3, § 22, stk. 1 og 2, § 24, stk. 3 og 4, § 25, stk. 3, § 27, stk. 2 og regler og vilkår fastsat i medfør af § 3, stk. 3, § 5, stk. 3, § 18, stk. 3, § 19, stk. 4 og § 24, stk. 5.
Stk. 2. Hvor Inatsisartutloven eller forskrifter udstedt i medfør af Inatsisartutloven hjemler idømmelse af bøde, kan bøden pålægges en juridisk person efter reglerne i kriminalloven for Grønland.

Stk. 3. Sker der ikke konfiskation af ubyte, som er opnået ved overtrædelsen, skal der ved udmåling af bøde, tages særligt hensyn til størrelsen af en opnået økonomisk fordel.


Klageadgang

Stk. 2. Klageberettiget er:
1) Den, til hvem afgørelsen er rettet.
2) Enhver, der må antages at have en individuel eller væsentlig interesse i sagens udfald.

Stk. 3. Klagefristen er 4 uger fra den dag, beslutningen er meddelt den, som afgørelsen er rettet til. Rettidig klage har opsættende virkning for den påklagede afgørelse, med mindre klagemyndigheden bestemmer andet.

Stk. 4. Naalakkersuisut kan se bort fra klagefristens overskridelse, såfremt særlige forhold undtagelsesvis tilsiger det.

Stk. 5. Naalakkersuisuts afgørelser kan ikke indbringes for anden administrativ myndighed.

Kilder og aktuelle adresser
Forvaltningsplan for de fredede bygninger i Ny-Alesund/Svalbard
Om byggeskik og vedligeholdelse, miljøministeriet – fredningsstyrelsen
Vinduer: tradition, vedligeholdelse og forbedring, Det særlige Bygningssyn, Fredningsstyrelsen
Offentligt byggeri i Grønland 1900-1946 af Jens Christian Madsen

Grønlands Nationalmuseum og Arkiv vil altid være behjælpelig med rådgivning om valg af materialer og arbejdsmetoder.

Nunatta Katersugaasivia Allagaateqarfialu
Greenland Nationalmuseum and Archives
P.O. Box 145
3900 Nuuk
Greenland

Oqarasuaat/phone +299 322611
Fax: +299 322622
Annexe 3:

iii. Action plan for Henning and Cecilie Lund’s house B-345 in Qanisartuut
Handlingssplan for Henning og Cecilie Lunds hus B-345 i Qanisartuut
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**Formålet med forvaltningsplanen**
Forvaltningsplanen vil bidrage til beskyttelse af det kulturelle miljø og at området forvaltes på en fornuftig måde og forhindre unødige konflikter.

**Målet med forvaltningsplanen:**
- Ejere og brugere og myndigheder får øget viden og forståelse af kulturarvsværdier.
- Ejere og brugere og myndigheder får nødvendig kendskab til lovgivningen, fredningens formål og konsekvenser, samt muligheden for at søge tilladelser og økonomisk tilskud.
- At forvaltningsplanen giver retningslinier for vedligeholdelse og mindre reparationer.
- Udviklingspotentialet for hver bygning vil blive sikret og afklaret, især ved modernisering og efterisolering.

Forvaltningsplanen er ikke juridisk bindende.
Målet er at opstille retningslinier for både den private og den offentlige forvaltning.

Hvergang der skal udføres arbejder der kræver ansøgning, skal Kujataa søge Grønlands Nationalmuseum & Arkiv om tilladelse.
Forvaltningsplanen giver klare retningslinjer for hvilke bygningsarbejder der kræver ansøgning og hvilken sagssgang der skal følges.

Forvaltningsplanen indeholder ikke tilstandsvurderinger. Det vil dog være en fordel hvis Kujataa udarbejder en drift- og vedligeholdelsesplan med rutiner for tilsyn etc.
Forvaltningsplanen giver overordnede rammer og retningslinier som vil være en forudsætning for den type konkrete arbejder og drift- og vedligeholdelsesplaner.
**Byggeskik i Grønland**

- Tørve-/Stenhusenes periode: 1778-1924
- Stenhusenes periode: 1924-1953
- Sten-/Træhusenes periode: 1953-1960
- Typehusenes periode: 1960-1980
- Selvbyggerhusperiode: 1980-

**Vatnahverfi’s historie og Qanisartuuts bygningshistorie**

Oversigt over epoker og vigtige hændelser i Qanisartuuts historie:

- 0900 - 1540: Norrøn bosættelse
- 1738 –1878: Anders Olsen
- 1914 –1940: Amos Egede
- 1934 –: Henning og Cecilie Lund


Bortset fra Andreas Egedes der slog sig ned i Igaliq Kujalleq i 1934 blev Henning og Cecilie Lund de første fåreholderne i Vatnaverfi siden nordboerne, da de i 1946 sammen med deres tre børn og en fåreflok på 280 dyr flyttede til Qanisartuut. Parret begyndte som nybyggere med at rydde jorden og som det var tilfældet for mange unge fåreholderfamilier, der i de år etablerede nye landbrug, var det et liv med hårdt arbejde.

Huset ligger i en frugtbar egn med lettere kuperet terræn med frodige enge, søer og elve. Området tiltrak i middelalderen også nordboerne, hvad et stort antal ruiner i området vidner om.

![Lundfamiliens kører i Qanisartuut, 2013 – foto Inge Bisgaard/NKA](image-url)
Status Beskrivelse

Ejerforholdet og brug
Huset er gået i arv til deres 5 børn og det er sønnen Niels Lund der er forvalter af huset.

Køkken – Henning Lund har selv fremstillet køkkenbord- og skabe.

Opholdsstue
Bevaringsarbejdet frem til i dag

Bevaring og vedligehold på fredede bygninger
Huset B-345 er bygget i 1946 hvor landet stadig var under indflydelse af de amerikanske baser i forbindelse med 2. verdenskrig og hvor der var små med byggematerialer fra Danmark. Husets bygningskonstruktioner fortæller om en tid hvor der var mangel på byggematerialer, hvorfor man måtte anvende halve dimensioner på gulv- og loftbjælker for at få nok til husbyggeriet. Henning Lund blev i sin tidlige ungdom udlært snedker hos tømrermester Pavia Høegh i Qaqortoq, hvilket er aflæseligt i hjemmets interiør. Henning Lund har selv fremstillet al inventar til køkkenet og meget af det øvrige møbelment i huset. Husets interiør er meget velbevaret og fortæller fint om færeholderlivets udvikling gennem tiderne, hvorimod husets eksteriør ikke har undergået større ændringer og overvejende har bibeholdt sit oprindelige udseende hvis man ser bort fra de nye thermovinduer.

Grundlæggende holdninger til bevaring
Kulturarven er en vigtig del af vores samlede kulturarv. Bygningerne dokumenterer tidligere tiders samfundsforhold, levevilkår, byggeskik og håndværkteknikker. Gamle bygninger kan ikke som andre bygninger ændres med hvilken som helst materiale og bygningerne er de eneste vidnesbyrd om tidligere tiders byggeskik og arbejdsteknikker. Derfor er det vigtigt at alle bygningsdata fra bygningens opførelse til dags dato er bevaret, fotografier og registreringer er vigtige dokumentationer og derfor er enestående kilder til viden og et uundværligt grundlag for fremtidig forskning og bevaring.

Det mest interessante og værdifulde i en bygnings historie er ofte det ældste dokumenter, der dokumenterer bygningens oprindelige design og brug. De nyere oplysninger kan have historisk værdi og som regel bør man være meget forsigtig med at fjerne noget fra en fredet bygning. Alle historiske epoker er indarbejdet i det fysiske byggede miljø og fortæller en historie om bygningen og dens udviklingen igennem tiderne.

Råd for vedligehold og istandsættelse, baseret på grundprincipper indenfor bygningsbevaring.

Det vigtigste er:

• Mest mulig af alle dele af bygningen skal bevares og derfor skal indgrebene og udbedringerne være så små som muligt.
• Det er bedre at vedligeholde fremfor at reparere og det er bedre at reparere fremfor at skifte ud.
• Der skal bruges traditionelle materialer og metoder, både ved vedligehold og eventuel udskiftning.
• Skjulte dele af bygningen (konstruktioner) er lige vigtige at bevare som synlige overflader.
• Hvis man vil ændre, er det bedre at føje noget til end at fjerne originale eller gamle bygningsdele. Den bedste bygningshistoriske arkiv er bygningen selv.
• Gamle ombygninger og ændringer af en bygning er ofte vigtige at bevare. De kan fortælle om bygningens historie gennem skiftende stilretninger og brug.
• Når noget fjernes eller ændres, skal dette dokumenteres og nedtegnes og arkiveret og i sjælne tilfælde kan dokumentationen sikres ved lagring af den fjernede bygningsdel.
• Ændringer skal om muligt være ganske skifte. Når behovene ændrer sig, kan de nye elementer fjernes og bygningen kan igen fremstå som før ændringen.
Fredningens formål
Selvstyrets kulturmindelov har til formål at sikre en varig beskyttelse af de kulturhistoriske bygninger i hele landet.

Vedligeholdelse - Definition og faglige principper
Formålet med bygninger er, at de skal være anvendelige, få regelmæssige tilsyn og vedligeholdelse. Regelmæssig vedligeholdelse sikrer, at skader konstateres tidligt, udbedres og på den måde skabes den mest økonomisk hensigtsmæssige beskyttelse. På den måde holdes udskifningerne nede og man undgår omfattende reparationer.

Ved at bevare de gamle bygningsdele og overflader af bygningen, bevarer bygningen sin autenticitet; dermed dens videnskabelige kildeværdi og rekreativ værdi.

En kopi kan aldrig fuldt ud erstatte de originale bygningsdele. Selv om kopien er lavet ens, er mindst to dimensioner der går tabt:

1. **Alderens værdi**: Spor af de "tidens tand" er væk. Vi kan ikke længere påvirke samme materialer som vores forgængere.

2. **Sandhedens vidnesbyrd**: Hvordan kan vore efterkommere vide, at den kopi af bygningen er præcist som det gamle?

Større vedligeholdelsesarbejder og ændringer
Der skal søges om tilladelse ved større vedligeholdelsesarbejder, reparationer og ændringer i en fredet bygning. Som oftest bliver der givet tilladelse når ændringerne er små og tiltaget er nødvendigt for husets fortsatte brug. Grønlands Nationalmuseum & Arkiv’s opgave er at passe på at der ikke bliver gjort så mange ændringer i årenes løb at bygningen til sidst mister sin fredningsværdi.

Eksempler på større vedligeholdelsesarbejder som kræver tilladelse:
- ændring af malingstype eller farve, fjernelse af ældre malingslag, overmaling af dekorationer eller lignende.
- vedligeholdelse af udvendig beklædning som indebærer en betydelig udskiftning af rådskadet træ
- restaurering af rådskadede vinduer
- forbedringer/ændringer af tekniske løsninger

Eksempler på andre ændringer som kræver tilladelse:
- udskiftning af bygningselementer som paneler, vinduer og døre
- tildækning af eksisterende overflader med ny pladebeklædning, tapet eller lignenede
- opsætning eller nedrivning af skillevægge
- etablering af bad eller større bygningsmæssige ændringer
- etablering af infrastruktur, rørføringer, ventiler etc.
- facadeændringer
- opførelse af tilbygning
- fjernelse/udskiftning af vægfast inventar

Et overordnet princip er at alle ændringer skal kunne føres tilbage til det oprindelige. Ændringer og tilføjelser skal kunne fjernes uden at bygningen bliver forringet. I praksis kan det betyde at der er tale om en ny beklædning udenpå det gamle og fx. at der etableret et skillevæg som kan fjernes uden mærkbare spor.
Tilbageføring
Når myndighederne skal vurdere forslag til ændringer, så vil de tage hensyn til hvilken del af perioden eller perioder i bygningens historie som fredningen ønsker at bevare. Hvis der er blevet foretaget ændringer i nyere tid, kan det i nogen tilfælde være aktuel at tilbageføre til tidligere eller et oprindeligt udseende. Dette kan gælde et helt eksteriør, dele af bygningen, enkelte rum eller mindre bygningsdele og detaljer. En tilbageføring er også en ændring som kræver godkendelse hos Grønlands Nationalmuseum & Arkiv.

Følgende præmisser og forudsætninger bør ligge til grund for at en tilbageføring skal kunne vurderes:

- Der foreligger en sikker og god og tilstrækkelig dokumentation (tegninger, fotografier etc.) af den oprindelige situation. Tilbageføring baseret på gætterier kan normalt ikke godtages.
- De nyere tilføjelser som fjernes eller tildækkes, har relativ lav eller underordnet værdi.
- Kulturmindet er ikke ændret for meget. Hus som har fået et nyt tagform, bygningskorpus eller lignende bør bevares som det er. Tilbageføring af vinduestyper og beklædning på en bygning med intakt bygningskorpus, kan derimod være aktuelt. (Det kan for eksempel være at husets beklædning har været lodret, men med tiden er blevet vandret – dette kan tilbageføres til den oprindelige beklædningsform eller vinduers placering og udførelse er ændret og kan tilbageføres på sikkert grundlag fx placering ud fra tegninger, fotografier eller spor i væggen).

Dokumentation af arbejdet
Alle ændringer på en fredet bygning bør dokumenteres og arkiveres. Her bør det redegøres for hvilke arbejder som er gjort, hvilke produkter eller materialer er blevet anvendt etc. Skjulte tekniske løsninger og detaljerede beskrivelser af valg af produkter er eksempler på information som kan lette byggesagsbehandlingen. Rapporten bør indeholde tekst, fotografier, eventuelle skitser og tegninger. For større bygningsændringer /ombygningsarbejder skal der engageres en bygningskyndig person som har den nødvendige viden omkring bygningsarbejder på ældre bygninger.

Konkrete retningslinjer for generel vedligehold og mindre reparationer

Fredning og anden kulturarvsbeskyttelse skal respekteres af alle rettighedshavere over det kulturhistoriske område, uanset hvornår rettigheden er stiftet.

Fundament-, gulv- og vægkonstruktion
Det er vigtig at man jævnligt sørger for:

- at al bevoksning og terræn holdes nede omkring huset
- at løse sten i fundament og væg repareres så hurtigt som muligt
- at forvitret mørtel og støbte mure repareres så hurtigt som muligt med hydralisk kalkmørtel
- at man følger de samme konstruktionsmetoder og byggeteknik

Interiørfotos – Henning Lund har selv fremstillet en stor del af møblementet i huset
Udvendig beklædning på gavle, stern og vinduesrammer m.m.
Beklædningen er en væsentlig del af husets identitet og kan fortælle meget om husets alder og historie. En gammel træbeklædning kan være nedsidt af vejr og vind og derfor se meget dårlig ud, men ofte er trækvaliteten rigtig god idet trækvalitet før træindustrialiseringen er noget af de bedste fordi det var fra meget langsommigt voksende træer med mange lag træved.
Udvendig træbeklædning har flere funktioner. Det beskytter de underliggende konstruktioner mod klimapåvirkning, det forskønner huset og det har en isolerende effekt.

Derfor er det vigtig at man jævnligt sørger for:
- for at forhindre rådskader, er det vigtigt at man jævnligt konstrollerer for unødige fugtpåvirkninger og sikrer muligheden for udtørring.
- at al vand ledes væk fra huset og husets konstruktioner
- at der bør være min. 25-30cm. fra terræn til underkant træbeklædning, fx ved bundstykke under porte og døre.

Undersøgelser for rådskader:
- stik en syl eller kniv ind i træbeklædningen især i den nedre del, fortrinsvis om sommeren når beklædningen er tørt. Hvis syl eller kniv møder fast træ og at det er under 2-4mm, så er tilstanden god. Stikker den dybere er der tegn på råd eller andre skader. Vurder alligevel nøje om der er behov for udskiftning. Hvis malingen sidder fast og godt, er træbeklædningen som regel fortsat brugbart. Sørg for at træbeklædningen får lov til at tørre ud efter at havde fjernet fugtkilden.

Udbedring af rådskader:
- Udbedring af lokale rådskader sker ved udlusning/skarring af de rådskadede dele. De nye trædele udføres nøjagtig i form og samme kvalitet som det eksisterende.
- Der må ikke bruges trykimprægneret træ

Rengøring:
- I tilfælde af at der er dannet bevoksninger på træbeklædning, skal disse vaske eller børstes af træværket, eventuelt med almindelig brun sæbe. Undgå alle former for trykspuling, dette kan skade træbeklædningens overflade og give uheldige indtrængninger af fugt og vand ind i konstruktionen.

Maling:
- Hvis der er begroninger eller meget støv på beklædningen, kan det vaskes af med sæbevand – helst brun sæbe.
- Undgå at bruges vinkelsliber, trykspuling eller andre hårdhændede metoder. Sprækker og mindre huller kan eventuelt tætnes med linoliekit, men i de fleste tilfælde er det bedst at lade disse stå åbne.
- Mal beklædningen og sørg for at beklædningen er tørt før du starter at male.
- Mal i en periode hvor der er varmegrader, helst de dage hvor temperaturen er over 12 grader idet malingen bliver længere tid om at tørre under de 12 varmegrader. Det får også en nedsat holdbarhed når det udsættes for frost under hærdning.
- Benyt en ren linoliemaling uden opløsningsmidler.
Vinduer
Alle vinduer på de fredede bygninger er udført af træ. De fleste har ældre vinduer, dels de oprindelige og dels kopier og andre er erstattet med selbyg af forhåndenværende materialer.

Vedligeholdelse:
- Konstroller vinduerne mindst 1 gang om året, kontroller maling, kit og beslag og tæk om vinduerne kan åbnes.
- Hjørnebeslag efterses og løse skruer strammes.
- Hold vinduerne lukket ved snefygning og slagregn
- Brug altid stormkrogen når vinduet er åbent.

Vurdering af skader:
- Tjek jævnligt at vinduet kan åbnes og lukkes uden væsentligt modstand. Hvis vinduet går trægt, så analyser årsagen til skaden. Årsager til træghed kan forårsages ved skævheder i huset eller det kan også være at vinduesrammen er blevet skævt på grund af dårlige hængsler/beslag eller løse hjørner.
- Kontroller om træet er friskt ved at stikke med syl eller kniv på udsatte steder medens træværket er tørt, ind i bundkarm, nedre del af rammer og midterpost. Møder du frisk træved ved at sylen eller kniven går højest 2mm ind i træværket, er tilstanden god. Kontroller beslag for tegn på rust eller løse skruer og sidstnævnte kan give indikationer på at træværket under er rådskadet.
Maling og kitning:
- Træoverfladerne males med linoliemaling
- Løst og krakkleret kit fjernes og erstattes med nyt linoliekit. Bart træ grundes med fortyndet linolie for at give bedre vedhæftning og for at hindre at kittet trækkes ind i træværket.
- Hvis al kit er dårligt og må fjernes, skal dette ske ved en forsigtig udskrabning.
- Vær ekstra forsigtigt hvis vinduet stadig har gamle vinduesglas.
- Glasset skal sættes i kitfals og glasset presses forsigtigt ned i kitlaget. Kitlaget skal være mellem ½ - 1mm tykt og fastgøres med stifter og kittes på ydersiden.
- Når kitoverfladen er blevet tør males det med linoliemaling. Mal 1-2mm ind på glasset for at sikre en tæt overgang.

Udbedring af skader:
- Hvis vinduer går trægt, må årsagen findes og derefter udbedres. Hvis det ikke er større opretninger der skal gøres, må man vurdere følgende justeringer: høvle eller tilretning med sandpapir, demontere lister og opretning med trækiler.
- Hvis vinduesrammen går skævt, kan der monteres en ekstra anslagsliste til optagelse af skævheden.
- Små rådskader udbedres ved indpasning af tilsvarende nye dele udført som nøjagtige kopier som det eksisterende. Husk at fjerne mindst mulig trædele.
- Rådskader ved skruenhuller og beslag udbedres ved fjernelse af det rådskadede træ eller ved anvendelse af større skruer.
- Hvis der er tale om rustne beslag, skal løs rust fjernes og beslaget skal behandles med rusthæmmende maling. Eventuelt hulrum mellem beslag og træ udfyller med linoliekit.
- Ødelagte beslag erstattes med tilsvarende nye kopier eller samme model.

Udskiftning eller opgradering af vinduer
Gamle vinduer kan opleves som kolde og eller man generes af træk. Dette skyldes ofte utæthed i vinduet eller i overgangen mellem karm og væg. For at få en bedre isoleringsevne og hindre træk kan der gøres følgende tiltag:
- Vinduesrammerne afmonteres forsigtigt og der efterisoleres mellem karm og væg.
Døre  
Dørenes alder er ofte vanskelig at fastslå men i udgangspunktet bør dørene bevares og restaureres fremfor at blive skiftet ud. Alt for mange døre er blevet skiftet ud i ældre huse i den tro at de var udsidelte, men de skal bare gennemgå mindre reparationer, justeringer og malerbehandling.

Følgende tegning baseret på illustrationer fra gamle træhuse viser de forskellige navne på de vigtigste dele af en dør.

Fyldningsdør med 3 fyldninger.

Vedligehold, maling, skadesvurdering og udbedringer af trædøre følger i princippet samme retningslinjer som for vinduer. Der er imidlertid enkelte specielle forhold man bør være opmærksom på:

- Hvis dørhængslerne er for dårlige til at blive restaureret, må de erstattes af nye. Hvis hængslerne har en historisk værdi, bør disse bevares på stedet, og nye kopier isættes i stedet for.
- Ældre låsekasser og beslag som har særlig bevaringsværdi, skal bevares. Hvis låsen fungerer dårligt, supper med en ny over eller under den gamle. Lås uden bevaringsværdig erstattes af nye med samme placering og udtryk.
Udbedring af skader:
Gamle døre kan opleves som kolde eller at kulden trækker igennem disse. Ofte er det utætheder i selve døren eller i overgangen mellem karm og væg årsagen til træk. Indvendige døre kan desuden have dårlig brandsikkerhed.
Følgende tiltag kan vurderes:
• Der monteres tætningslister på karm eller dørfals
• Dørinddækninger fjernes forsigtigt og der isoleres med mineraluld mellem karm og væg.

Tagbeklædning
Bygningen har tagpapbeklædning. Utætheder i tagpap skyldes ofte at tagpapet bliver forvitret som følge af vejrpåvirkninger og UV-lyst. Pappen kan blive så tyndslit at der opstår gennemtrængning af fugt eller huller.
Moderne tagpap er diffusionstæt, og er ideelt set bør der derfor være udluftning ved tagkonstruktioner. Behovet for udluftning vil imidlertid være afhængig af tagkonstruktionens opbygning og de lokale forhold i bygningerne.

Tag med tagpapdækning efterses og vedligeholdes således:
• Tagpappen tjekkes årligt for utætheder, huller eller forvitringer. Udnyt regnvejrsdagene til dette tjek.
• Se efter lækager især oppe under tag i loftrum og vær opmærksom på at vandet kan vandre langt fra lækagestedet.
• Vær særlig opmærksom ved utætheder ved skorsten og inddækninger
• Små skader i tagpappen kan udbedres med mindre tagpaplapninger
• Vælg en pap som matcher med det eksisterende både i struktur og farve
• Vær opmærksom på at papruller skal lagres og transporteres stående

Skorsten
Skorstenene er muret op af tegl og er ikke pudset udvendigt.
Skorstenen er en vigtig del af husets arkitektur.

Forebyggelse/sikring:
• Konstroller skorstenpiberne mindst en gang om året. Tjek at murstenene er stabile og pudslaget er tæt.
• Skorsten som ikke er i brug, bør være afskærmet eller lukkede i toppen, så sne og regn ikke kommer ned i pibeløbet.

Vedligehold:
• Reparationer af skorstensfuger som enten er skallet af eller forvitret skal ske med mørtel/pudslag som det eksisterende. Det er som regel en kalkholdig K/C-mørtel. Pudset skorstenpibe kan males med en to komponent silikatmaling eller den kan kalkes.

Vurdering af skader:
• Hvis skorstenen har store sprækker eller revner, må man kortlægge årsagen. Dette kan skyldes sætninger og svigt i bærende konstruktioner eller ustabilitet og skader i selve skorstenens murværk. Når årsagen er blevet kortlagt kan sprækker og revner udbedres
• Lækager rundt omkring skorstenspiben kan føre til alvorlige rådskader. Lækager skyldes ofte utætte inddækninger og beslag. Kontroller inddækninger og beslag og se efter fugtspjolder på indersiden af taget og skorstenspiben.
Udbedring af skader:

- Hvis skorstenet er ustabilt eller ødelagt af frostsprængninger, må piben helt eller delvis tages ned og mures op igen med samme udseende og med mest mulig genbrug af eksisterende tegl. Skadede tegl skal erstattes med tilsvarende model.
- Pibegennemføringer af rør bør af hensyn til brandfare have en isoleret gennemføring gennem tag – hvis skorstenen er i brug.
- Mindre skader i inddækninger eller beslag kan udbedres, men i mange tilfælde vil en udskiftning være tilrådeligt. Nye inddækninger og beslag skal have samme udførelse og materialekvalitet som det eksisterende.

Bærende konstruktioner


Vær opmærksom på følgende:

Vurdering af skader:

- Se jævnligt efter sætninger og ujævnheder i vægge/gulv/tag og vurder om disse kan skyldes svigt i bærende konstruktioner.
- Ved mistanke om skader, f.eks. efter langvarig fugtpåvirkning, tjekkes konstruktionen. Det kan være nødvendigt at man forsigtigt demonterer beklædningen. Trækonstruktioner tjekkes ved at man stikker en syl eller kniv ind i træværket og hvis disse ikke trænger længere ind i træværket end 2-4mm, så er tilstanden god.

Udbedring af skader:

- Skjulte konstruktioner skal bevares i størst mulig omfang, kun skadede dele fjernes.
- Mindre rådskader som ikke påvirker bæreevnen, kan blive staende, forudsat at fugtsituationen er under kontrol. Så længe ny fugt ikke tilføres, så ligger rådet i dvale og gør ingen skade. Rådskadet træ kan eventuelt skarres væk og dette vil reducere faren for opblomstring af rådet.

Indvendige vægbeklædning og paneler

Vedligeholdelse af den indvendige beklædning:

- Snaps og stov afvaskes med evt. 5-10% salmiakspiritus
- Ældre maling skal ikke fjernes, kun løs maling fjernes og skrabes af i vedretningen og resterende maling slibes med sandpapir i vedretningen.
- Knaster påføres shellak
- Undgå brug af spartel! Sprækker og små huller kan eventuelt tætnes med linoliekit
- Benyt ren linoliemaling uden opløsningsmidler. Malingen påføres med pensel med start oppefra og ned
Trægulve
- Gangzoner kan beskyttes med måtter og vandudsatte zoner med vandtæt måtte eller belægning.
- Matte flader rengøres påføres shellak.
- Undgå brug af spartel, sprækker og små huller kan eventuelt tætnes med linoliekit.
- Brug linoliemaling, eventuelt alkylforstærket linoliemaling i rum med stærk slitage.

Små tiltag, skiltning etc.
Der er jævnligt behov for mindre ingreb, som skruehuller og lignende i forbindelse med indretninger og brug af de fredede bygninger.

Udvendig kan det være opsætning af skilte og lysarmatur.

Sådanne indgreb kræver normalt ingen tilladelse og det forudsættes at indgrebene gøres så skånsomt som muligt og placering af nye elementer gøres i forståelse med bygningens arkitektur og historiske kvalitet.


Følgende tiltag kræver tilladelse:
- Opsætning af udendørs skilt større end 2000cm2 (f.eks. 40x50cm)

Kriv til håndværkere
Generelt bør håndværkere som arbejder på fredede eller anden kulturarvsbeskyttede bygninger have nødvendig kendskab og erfaring med restaureringsarbejde, beherske tekniker og den rette holdning til arbejde med gamle kulturarhsiske bygninger. En erfaren restaureringshåndværker vil vurdere skader og muligheder for udbedring på en hel anden måde end en håndværker med erfaring fra nybyggerier.

I nogen tilfælde vil det være ønskeligt med specialkompetencer for at resultatet skal blive tilfredsstillende. Dette kan være restaurering af vinduer, malerarbejde eller konserveringsarbejde mm. Når Grønlands Nationalmuseum & Arkiv giver tilladelse til ændringer, kan der sættes vilkår om at den udførende håndværker skal have restaureringskompetence.

Farve- og bygningshistoriske undersøgelser
Mange farvebrug er interessante som historiske kilder. De fortæller om trends igennem tiderne, social status, tilgang til materialer og materialebrug.

Når et hus skal sættes i stånd og moderniseres indvendigt, bør det rutinemæssigt afsættes midler og tid til bygningshistoriske undersøgelser. Dette vil være vigtigt og give et godt beslutningsgrundlag for hvordan arbejderne bør udføres, hvilke dele bør bevares etc. Samtidig vil undersøgelsen sikre vigtige informationer for eftertiden. Hvis interiøret tildækkes, f.eks. ved efterisolerering, så er bygningsundersøgelsen den bedste mulighed for at sikre og formidle denne dokumentation.

Farvekoder:
Den bedste maling til gamle bygninger er linoliemaling - den holder længe og er langt den billigste, idet man kan behøver at gemmale med linoliemaling hver 15. – 20. år og hvis man vil friske farven op er det hver 3. eller 5. år med grundningsolie.

Vinduer, døre, rammer og stern: NCS farvekode S 0300-N
Facademaling: Falurød NCS 4941-Y79R (mørkere end svensk rød) eller
Svensk rød S 4050-Y80R
**Handlingsplan for hver enkelt bygning - Værdivurderingsskema**

Hvert hus skal beskrives og dokumenteres. Her kan man læse om bygningens historie og brug frem til i dag. Eksteriøret beskrives og vigtige bevaringsværdige elementer fremhæves.

**Forholdet mellem kulturmindelovens bygningsfredningslov og arealovgivningen**


**Roller, ansvær og sagsgang**

Forvaltningens hovedformål er at enkeltbygninger og det samlede miljø i Igaliku bliver bevaret i henhold til anden kulturarvsbeskyttelse.

Alle parter, både bygningsejer og brugere og den offentlige forvaltning, bør søge at løse interessemodsætninger på bedst mulig måde.

Forvaltningsplanen er et vigtigt værktøj i dette arbejde. Den som ejer en bygning som er under anden kulturarvsbeskyttelse eller en fredet bygning, har fået et ansvær for at tage vare på en vigtig del af landets værdifulde kulturarv.

Grønlands Nationalmuseum & Arkiv har et generelt vejledningsansvar overfor ejere og for den øvrige forvaltning. Grønlands Nationalmuseum & Arkiv skal afgøre om ansøger kan få tilladelse til bygningsarbejder i henhold til Kulturmindeloven, Kap. 3

**Sagsforløb og sagsgang**

Sagsbehandlingen knyttet til en fredet bygning eller anden kulturarvsbeskyttelse skal i udgangspunktet være skriftlig. Dette vil give eentity lig referencer for drøftelser, samtidig med at både processen og bygningsmæssige ændringer vil blive arkiveret og bevaret for eftertiden.

**Tidsfrister**

Der er ingen tidsfrister

**Tilladelse efter kulturmindeloven, Inatsisartutlov nr. 11 af 19. maj 2010 om fredning og anden kulturarvsbeskyttelse af kulturminder,**


Generelt skal man ikke have tilladelse fra Grønlands Nationalmuseum & Arkiv til almindelig vedligeholdelse. Det vil sige arbejder, der ikke ændrer på bygningens farver, overflader, materialer, omfang og indretning, og hvor vedligeholdelsesarbejdet ikke indebærer egentlig udskiftning af materiale.

**Krav til ansøgninger**

Ansøgningen skal indeholde: Kort beskrivelse af hvad bygningens hovedkonstruktioner er, fx. huset er opført i bindingsværk for eksempel med 1 på 2 beklædning, tagpap på taget, muret skorsten og sprosse vinduer, farve på hus, stern, vinduer/døre og rammer.

Endvidere en kort beskrivelse af hvad det er der skal laves og hvor stort det bliver.
Sanktioner, kulturmindeloven Kap. 7, § 32.
Det kan medføre bøde at overtræde § 6, stk. 1-3, § 7, stk. 4, § 9, stk. 2, § 11, stk. 2-4, § 16, 1. pkt., § 19, stk. 3, § 21, stk. 3, § 22, stk. 1 og 2, § 24, stk. 3 og 4, § 25, stk. 3, § 27, stk. 2 og regler og vilkår fastsat i medfør af § 3, stk. 3, § 5, stk. 3, § 18, stk. 3, § 19, stk. 4 og § 24, stk. 5.
Stk. 2. Hvor Inatsisartutloven eller forskrifter udstedt i medfør af Inatsisartutloven hjemler idømmelse af bøde, kan bøden pålægges en juridisk person efter reglerne i kriminalloven for Grønland.
Stk. 3. Sker der ikke konfiskation af udbytte, som er opnået ved overtrædelsen, skal der ved udmåling af bøde, tages særligt hensyn til størrelsen af en opnået økonomisk fordel.

Klageadgang
Stk. 2. Klageberettiget er:
1) Den, til hvem afgørelsen er rettet.
2) Enhver, der må antages at have en individuel eller væsentlig interesse i sagens udfald.
Stk. 3. Klagefristen er 4 uger fra den dag, beslutningen er meddelt den, som afgørelsen er rettet til. Rettidig klage har opsættende virkning for den påklagede afgørelse, med mindre klagemyndigheden bestemmer andet.
Stk. 4. Naalakkersuisut kan se bort fra klagefristens overskridelse, såfremt særlige forhold undtagelsesvis tilsiger det.
Stk. 5. Naalakkersuisuts afgørelser kan ikke indbringes for anden administrativ myndighed.

Kilder og aktuelle adresser
Forvaltningsplan for de fredede bygninger i Ny-Alesund/Svalbard
Om byggeskik og vedligeholdelse, miljøministeriet – fredningsstyrelsen
Vinduer: tradition, vedligeholdelse og forbedring, Det særige Bygningssyn, Fredningsstyrelsen
Offentligt byggeri i Grønland 1900-1946 af Jens Christian Madsen

Grønlands Nationalmuseum og Arkiv vil altid være behjælpelig med rådgivning om valg af materialer og arbejdsmetoder.

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