VIKING AGE SITES IN NORTHERN EUROPE

A TRANSNATIONAL SERIAL NOMINATION TO UNESCO´S WORLD HERITAGE LIST

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STYRELSEN
DANISH AGENCY FOR CULTURE

STATE INSPECTION FOR HERITAGE PROTECTION REPUBLIC OF LATVIA

Archäologisches Landesamt Schleswig-Holstein

MENNTA- OG MENNINGARMÁLARÁÐUNEYTIÐ
Ministry of Education, Science and Culture

RIKSANTIKVAREN
Riksantikvaren - Directorate for Cultural Heritage

Viking Age Sites in Northern Europe
A transnational serial nomination to UNESCO´s World Heritage List

January 2014

Editors: Agnes Stefánsdóttir and Matthias Malück
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FOREWORD

Since the 19th century, when the Icelandic Sagas were made available in translated and printed editions and the first Viking ships were unearthed, the Viking Age has been an historical period of worldwide fascination. The Viking Age has not only been crucially important in defining the national heritage of Denmark, Iceland, Norway and Sweden, the period has also been closely connected with the development of the scientific discipline of archaeology in Northern Europe.

This nomination presents some of the most scientifically important sites from the Viking Age, considered to be a vital part of the history of humanity. The transnational serial property Viking Age Sites in Northern Europe consists of seven component parts located in the five countries Denmark, Germany, Iceland, Latvia and Norway. Thus, the component parts are from what is regarded as the core area of Scandinavian settlement during the Viking Age: Scandinavia and the North Atlantic islands – complemented by a component part from the area of interaction with other cultural groups. All of the component parts are monumental archaeological sites or groups of sites dated to the 8th – 11th century AD, in other words the period most commonly referred to as the "Viking Age" in the geo-cultural region of Northern Europe.

The five countries have worked closely together to prepare this document with the purpose of nominating this series of archaeological sites from the Viking Age for inscription on the World Heritage List. The project, which was launched on 4th February 2008, has been executed under the leadership of the Ministry of Education, Science and Culture in Iceland and coordinated by the Archaeological Heritage Agency (from 1st January 2013 the Cultural Heritage Agency) of Iceland. The national cultural heritage agencies in each country have been in charge of the preparation of the nomination, in close cooperation with local authorities, organisations and experts. I also want to thank The Nordic World Heritage Foundation for its support and assistance during the whole process. The project's scientific advisory board deserves special mention as it has played an important role in the project and constitutes the guarantee for the academic quality of the nomination. It is by this process that this document – Nomination of "Viking Age Sites in Northern Europe" for inscription on the World Heritage List – was prepared according to the Operational Guidelines for the implementation of the World Heritage Convention.

It is a great honour for me, on behalf of the Government of Iceland, to extend my sincere thanks to all the organisations and their personnel who have contributed to this project with such zeal. Without this fruitful cooperation it would not have been possible to produce and assemble this documentation and submit it to the World Heritage Centre. I hope that the nomination will result in a positive decision with respect to the inscription of "Viking Age Sites in Northern Europe" on the World Heritage List.

Illugi Gunnarsson
Minister of Education, Science and Culture

ACKNOWLEDGEMENTS

THE FOLLOWING CONTRIBUTORS TO THE PREPARATION OF THIS DOCUMENT ARE WARMLY THANKED

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Iceland, Denmark, Germany, Latvia, Norway

STATE, PROVINCE OR REGION

Iceland: Bláskógabyggð Municipality

Denmark: Vejle Municipality, Vesthimmerland Municipality, Mariagerfjord Municipality and Slagelse Municipality

Germany: Schleswig-Flensburg and Rendsburg-Eckernförde Administrative Regions, State of Schleswig-Holstein

Latvia: Grobiņa Municipality

Norway: Horten, Tønsberg and Sandefjord Municipalities in Vestfold County, Hyllestad Municipality in Sogn og Fjordane County

NAME OF PROPERTY

Viking Age Sites in Northern Europe

GEOGRAPHICAL COORDINATES

ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT
1	**Þingvellir**		Iceland	N64°15'33" W 21°07'13"
2	**Jelling**		Denmark	N 55°45'23" E 9°25'12"
3	**The Trelleborg fortresses**		Denmark	
3.1		Aggersborg		N 56°59´43" E 9°15´17"
3.2		Fyrkat		N 56°37'23" E 9°46'13"
3.3		Trelleborg		N 55°23'39" E 11°15'55"
4	**Hedeby and Danevirke**		Germany	N 54°29´33" E 9°34´02"
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ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT
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TEXTUAL DESCRIPTION OF THE BOUNDARIES OF THE NOMINATED PROPERTY

The boundaries of the serial transnational nominated property are those of the individual component parts described below:

1. ÞINGVELLIR, ICELAND

This component part of the nominated property is the innermost core area of Þingvellir National Park. The nominated component part is bordered by the rifts Almannagjá to the west and Flosagjá to the east, the lake Þingvallavatn to the south and the Öxaráfoss waterfall to the north. All known archaeological remains and historic references to the assembly proceedings are found within, or relate to, this area.

2. JELLING, DENMARK

The nominated component part of the monumental Jelling complex includes the Jelling mounds, rune stones, palisade area, stone setting and church, which are all situated inside the rhombic palisade structure. The boundary of the nominated component part is the outer physical extent of the palisade.

3. THE TRELLEBORG FORTRESSES, DENMARK

The component part includes three separate sites, Aggersborg (3.1), Fyrkat (3.2) and Trelleborg (3.3).

3.1 Aggersborg

The nominated site Aggersborg includes the fortress and its rampart. The boundary follows the outside of the preserved part of the ditch.

3.2 Fyrkat

The nominated site Fyrkat includes the fortress, the rampart and the cemetery. Towards the northeast the boundary includes the cemetery, but elsewhere it follows the outside of the ditch. Towards the north the boundary is defined by the slope alongside the river.

3.3 Trelleborg

The nominated site Trelleborg extends over 8 ha and includes the fortress, the rampart, the enclosure and the cemetery. Towards the west the boundary follows the outside of the ditch alongside the ring fortress and towards the north it follows a small river. Towards the east and south the boundary is defined by the outside of the ditch around the enclosure.

4. HEDEBY AND DANEVIRKE, GERMANY

The boundaries of the nominated component part are those of the archaeological complex of Hedeby (4.12) and Danevirke (4.1-4.11, 4.13-4.22). Each individual site is delimited on all sides by known or presumably preserved archaeological remains or features. The boundary to the south is the extent of the ramparts or further defensive ditches and ramparts in front of these. The boundary to the north is the extent of the rear of the ramparts or further ditches. The boundary of Hedeby is delimited by the rampart of the hillfort to the north, the presumed extent of the harbour to the east and the extent of the defensive structures around the Semi-circular Wall to the west and south.

5. GROBIŅA BURIALS AND SETTLEMENTS, LATVIA

The nominated component part includes six separate sites within three buffer zones, Porāni (Pūrāni) burial mound site (5.1), Smukumi flat-grave burial site (5.2), Grobiņa medieval castle with bastions (5.3), Priediens burial mound site (5.4), Atkalni flat-grave burial site (5.5) and Grobiņa hillfort (Skabārža kalns) and settlement (5.6).

5.1 Porāni (Pūrāni) burial mound site

The Porāni (Pūrāni) burial site is delimited to the southeast by the Grobiņa – Tāsis road, to the southwest by an access road to a house and a small forest road and to the northwest by the edge of a slight elevation.

5.2 Smukumi flat-grave burial site

The northern and, in part, also the eastern border of Smukumi burial site are not visible. To the east the site is delimited by vegetation of the Rudzukalni property, the southern border is not visible and to the west the site is delimited by an industrial area.

5.3 Grobiņa medieval castle with bastions

Grobiņa medieval castle is delimited to the north and east, and partially also to the south and west, by a medieval moat. To the south and west it is also partially delimited by the Ālande river millpond.

5.4 Priediens burial mound site

The Priediens site is delimited to the south by the Ālande river, to the west and north by private residential properties in Grobina, along Zviedru Street, Liepu Avenue, Jāņa Street, Saules Street and Zirgu Street, to the east by an abandoned quarry covered with trees and to the southwest by Grobiņa stadium, Priedulāju Street and Zirgu Street.

5.5 Atkalni flat-grave burial site

The Atkalni flat-grave burial site, which has no visible distinguishable features, is situated on the upper part of a slight elevation on the side of the Ālande river valley and covers an area of c. 50 m^2.

5.6 Grobiņa hillfort (Skabāržakalns) and settlement

To the north, Grobiņa hillfort and settlement are delimited by the Ālande river millpond and Saules Street; to the east, Skabārža kalns is delimited by an ancient ditch, while the boundary of the settlement passes through private residential properties in Grobiņa, fields and along the slope by the Ālande river. To the south, the settlement is delimited by the Ālande river, while Skabārža kalns is delimited to the south and west by the Ālande river millpond.

6. VESTFOLD SHIP BURIALS, NORWAY

The component part includes three separate sites, the Borre mounds (6.1), the Oseberg mound (6.2) and the Gokstad mound (6.3).

6.1 Borre mounds

The boundary of the nominated site towards the south follows a narrow road, while to the north it follows the border of the protected area. The boundary to the west runs along the borders of Midgard Historical Centre, Borre rectory and the medieval Borre Church and graveyard, while the sea forms a natural boundary to the east.

6.2 Oseberg mound

From the southwest corner, the boundary goes north along a creek, and includes the vegetation on its west bank, it then goes east along a property boundary on cultivated land. Going south from the northeast corner, the boundary follows the border between cultivated land and a forest up to Road 460. It then goes southwest along Road 460 and Road 535 to the southwest corner.

6.3 Gokstad mound

Towards the west the nominated site is roughly delimited by a built-up area, with the boundary crossing cultivated land towards the east to the foot of Frebergåsen. It follows the foot of Frebergåsen to the south to Road 303 and continues around a small built-up area, then runs directly south to the Viking Age seashore. Towards the south and southeast the site is delimited by the Viking Age seashore and the boundary continues partly along Road 265 and party alongside built-up areas.

7. HYLLESTAD QUERNSTONE QUARRIES, NORWAY

The component part includes three separate sites, Myklebust (7.1), Sæsol (7.2) and Rønset (7.3), within one buffer zone.

7.1 Myklebust

To the northeast, the boundary follows the farm borders of Myklebust and the neighbouring farm of Hyllestad. The eastern boundary of the nominated site is located just west of the border between outlying areas of the farm and the arable land to the east. The boundary to the west passes settlement areas, while the southern boundary runs largely parallel to the river Myklebust.

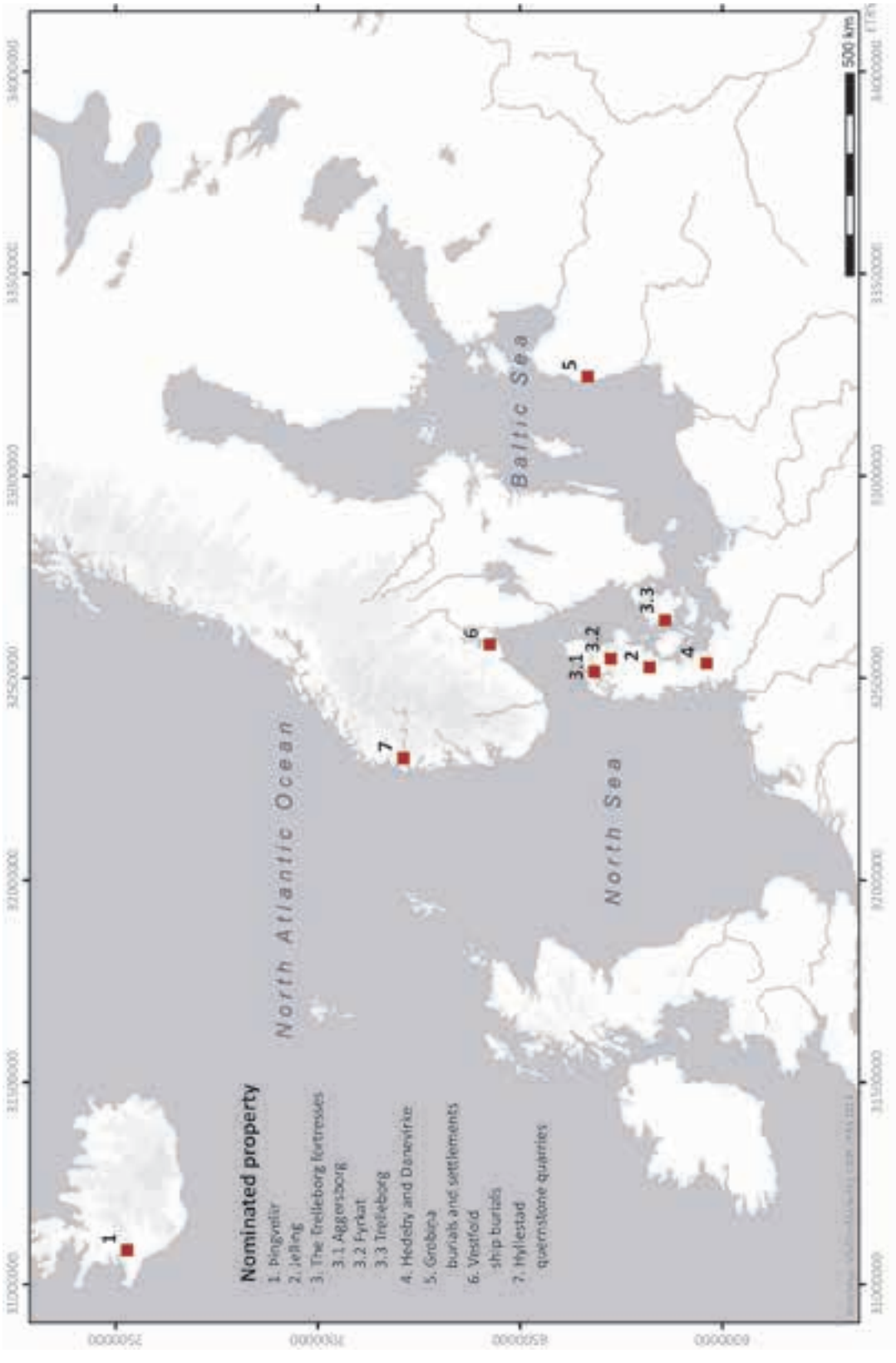
7.2 Sæsol

The northeastern boundary follows the farm perimeter in the direction of the neighbouring farm of Sørefjord, while the boundary to the south follows the river that flows out of the lake Gåsetjørna. Gåsetjørna forms a natural boundary to the southeast. The eastern and western boundaries are largely straight lines across the terrain.

7.3 Rønset

The nominated site at Rønset follows the river to the northwest and the farm boundary between Rønset and the neighbouring farm of Leirpollen. To the northeast, it partly follows an old farm road, while to the southeast it follows the border between the arable land and the outlying areas of the farm. To the south, the nominated site extends into the sea.

OVERVIEW OF THE NOMINATED PROPERTY



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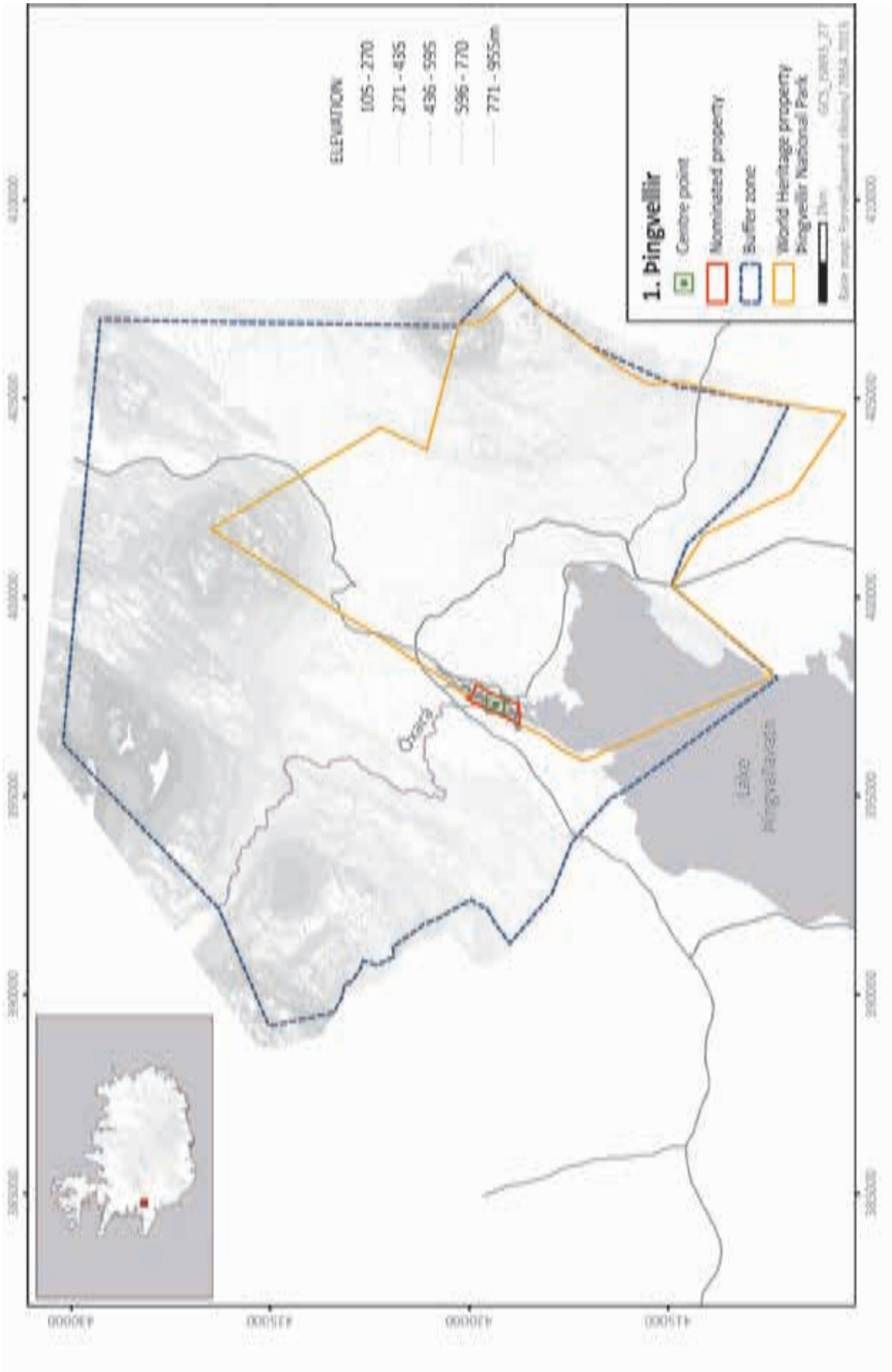

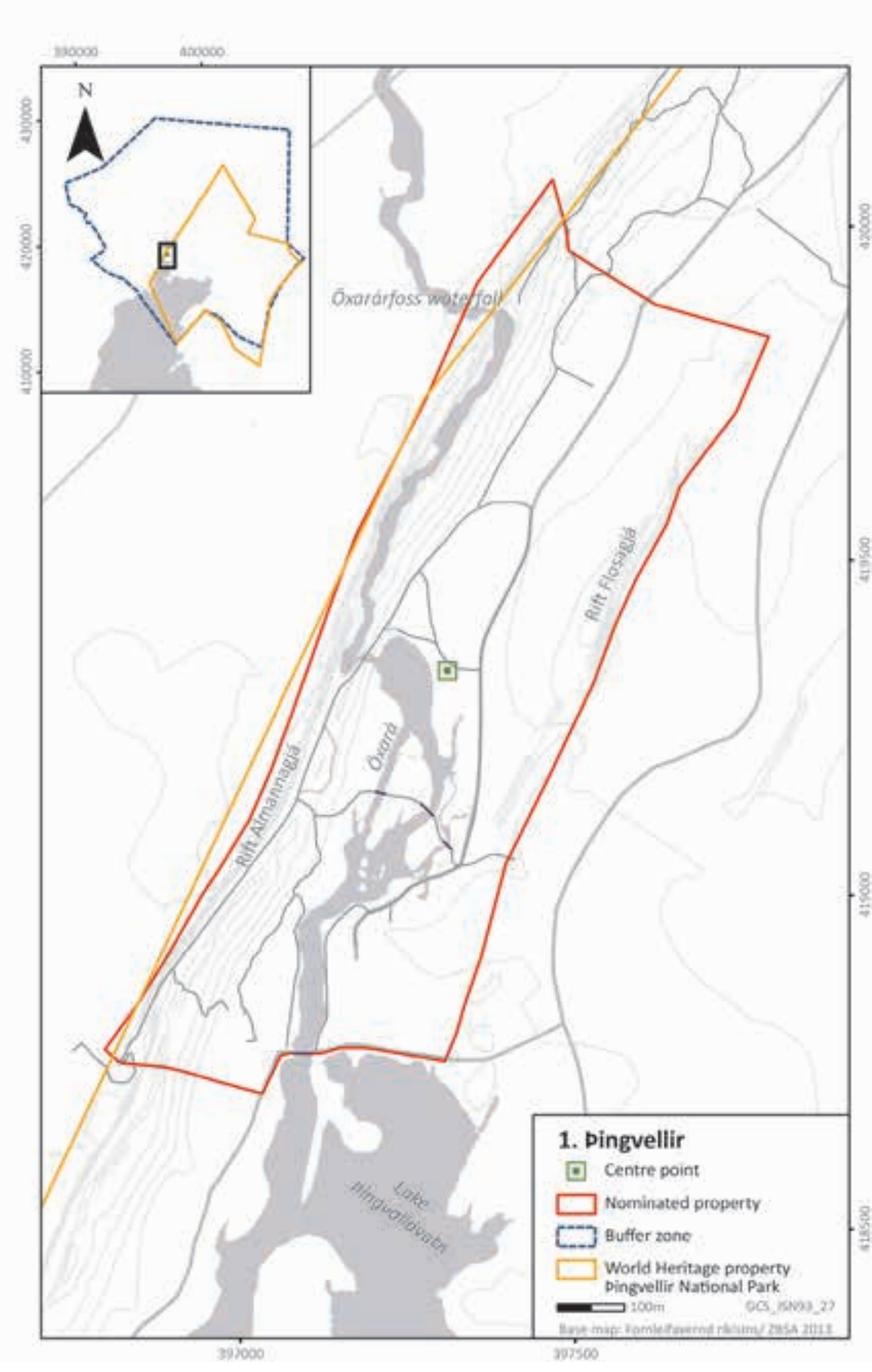
390000
400000
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Öxarárfoss waterfall
Rift Almannagjá
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420000
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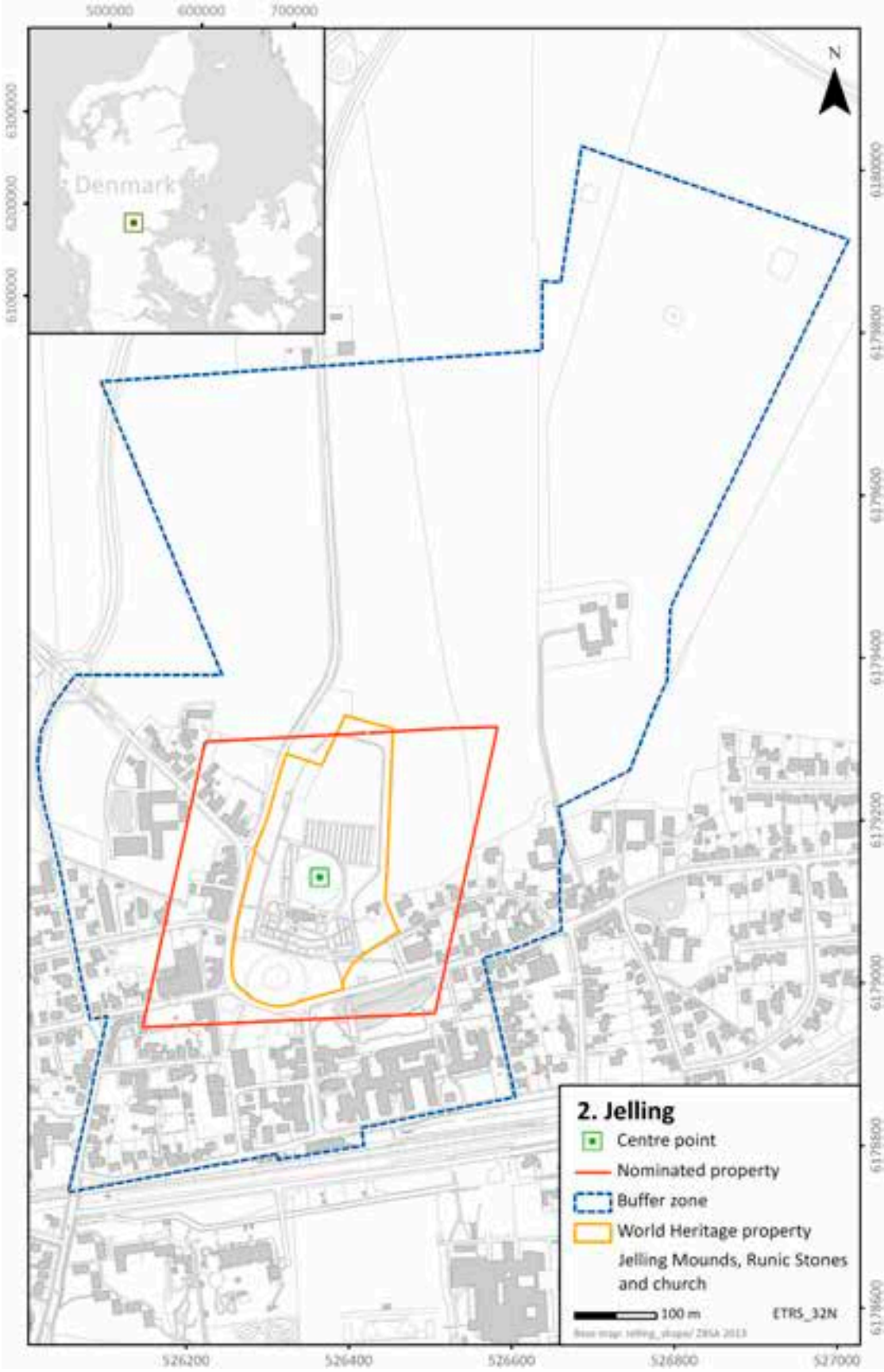
Centre point
Nominated property
Buffer zone
World Heritage property
Þingvellir National Park
100m
GCS_ISN93_27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Denmark
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6179000
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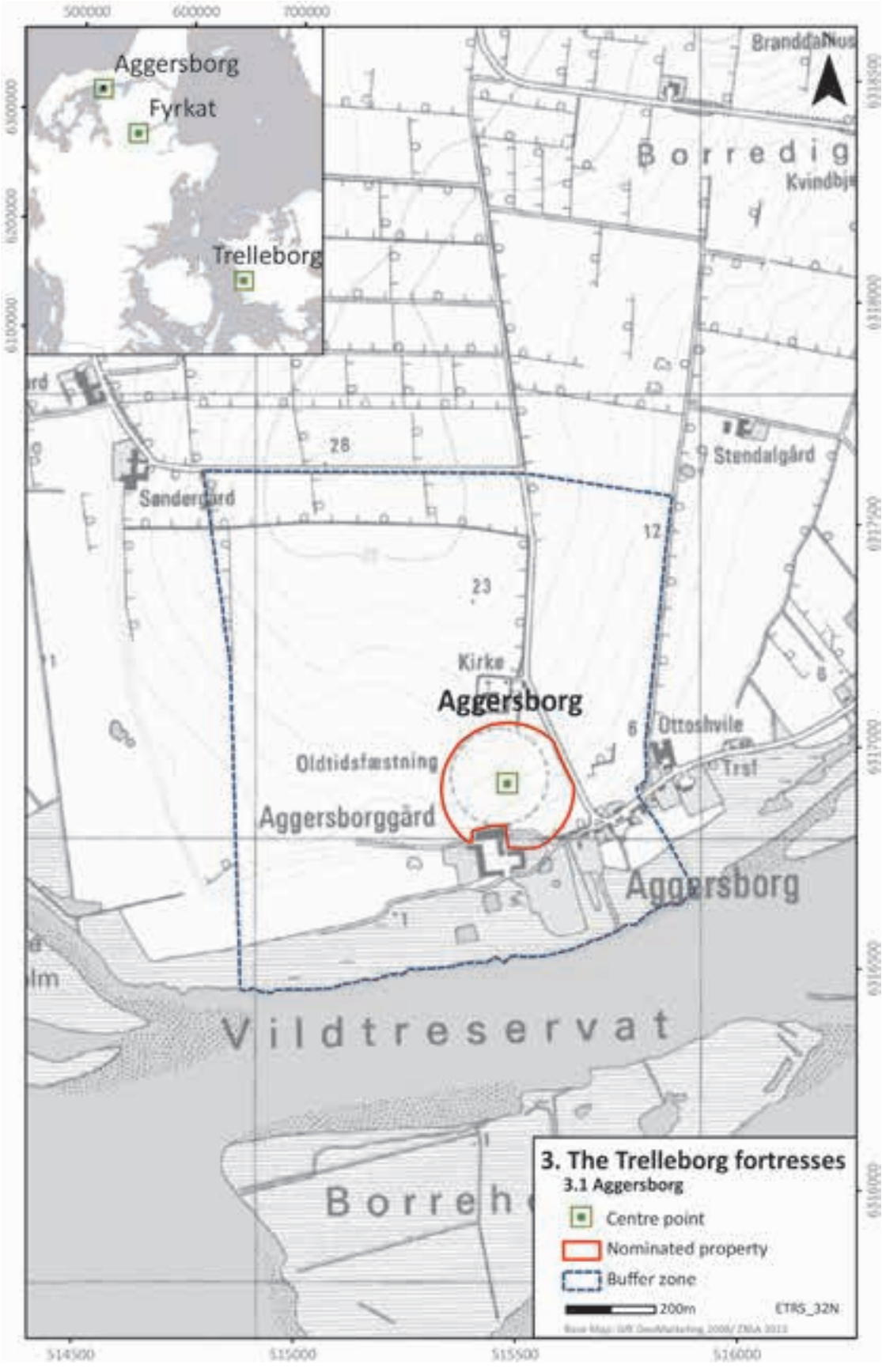
Centre point
Nominated property
Buffer zone
World Heritage property
Jelling Mounds, Runic Stones and church
100 m
ETRS_32N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Borredig
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12
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Oldtidsfæstning
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6
Ottoshvile
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Borreh
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3.1 Aggersborg
Centre point
Nominated property
Buffer zone
200m
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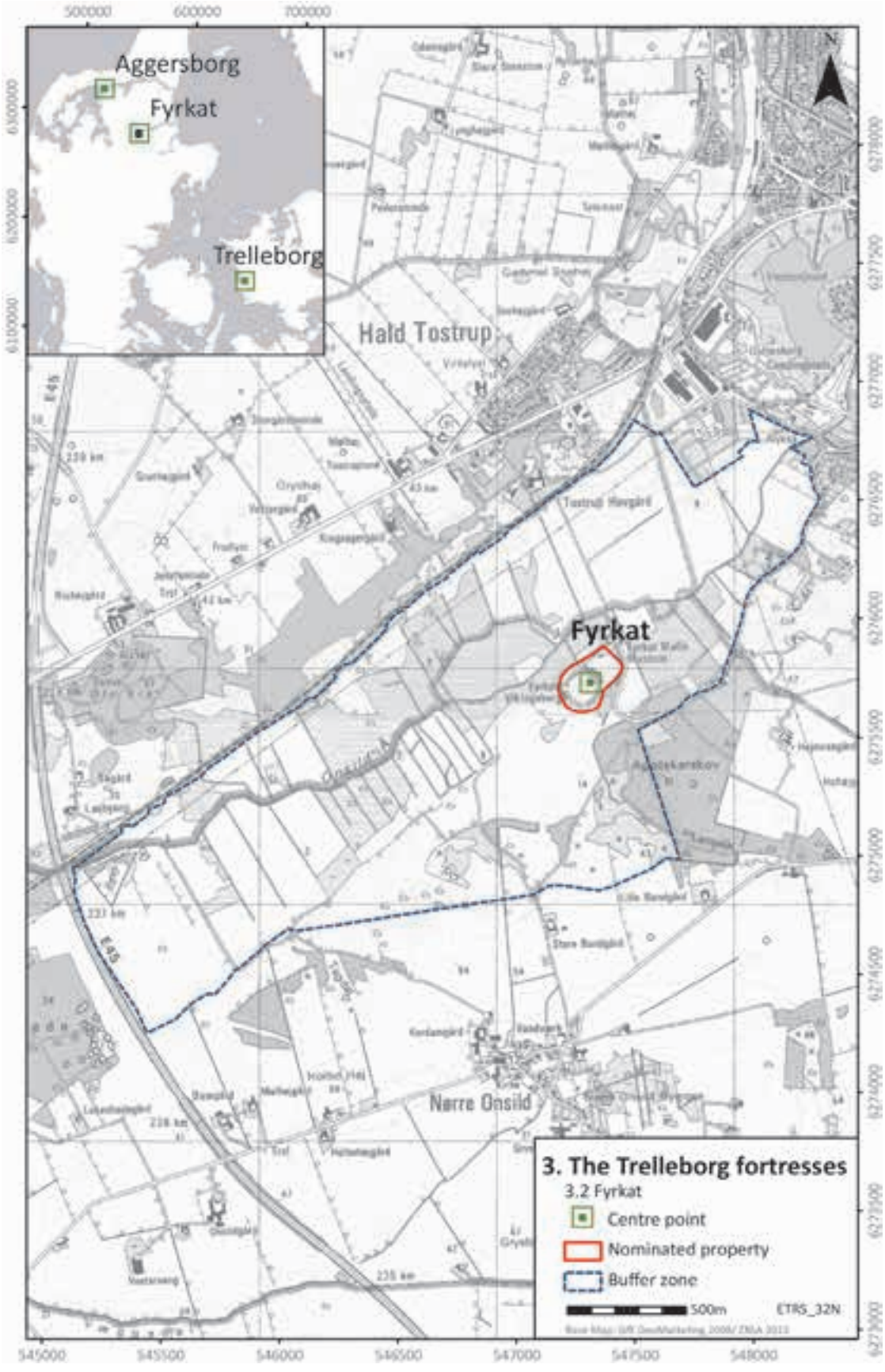
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500m
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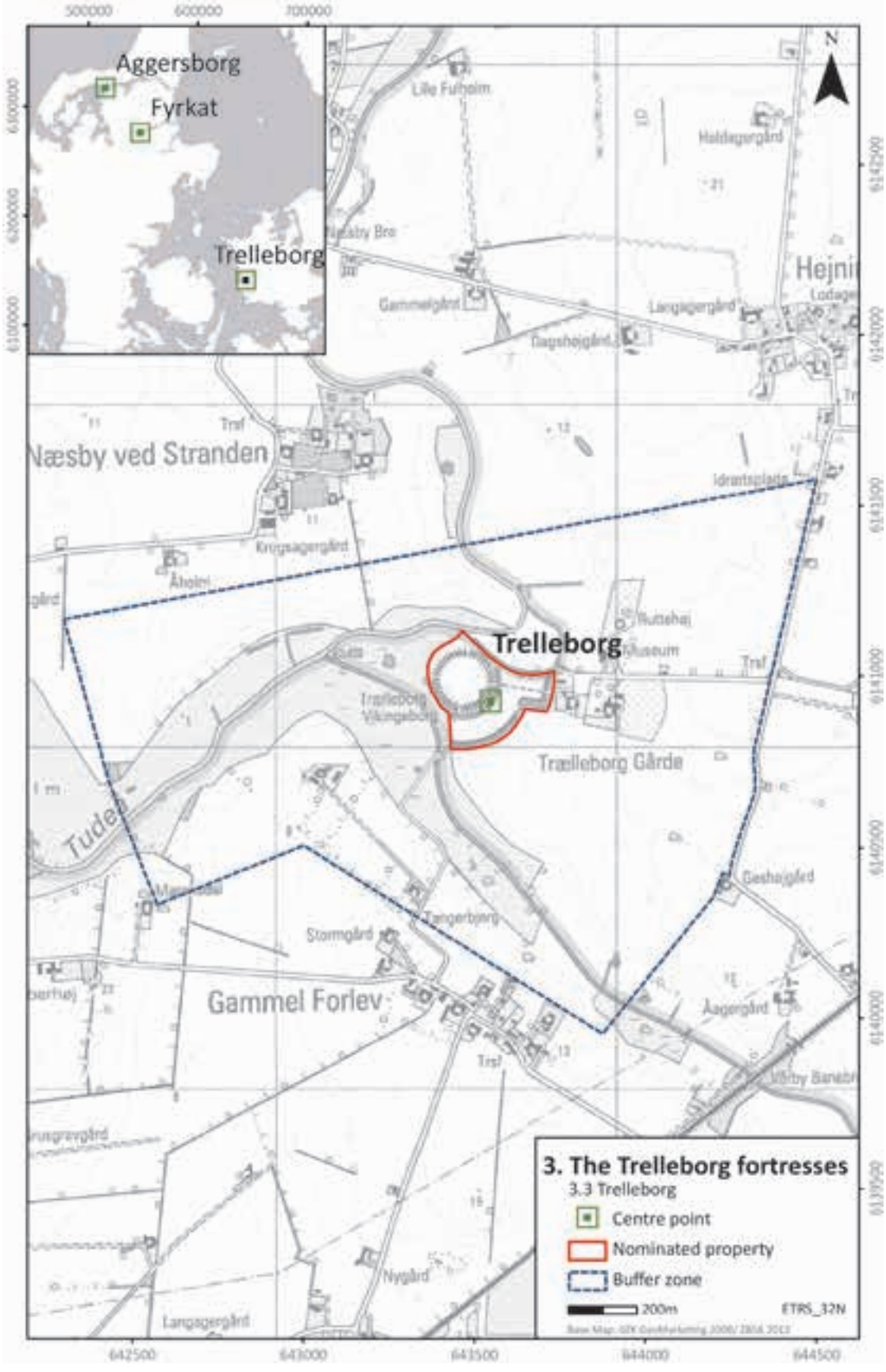
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Centre point
Nominated property
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200m
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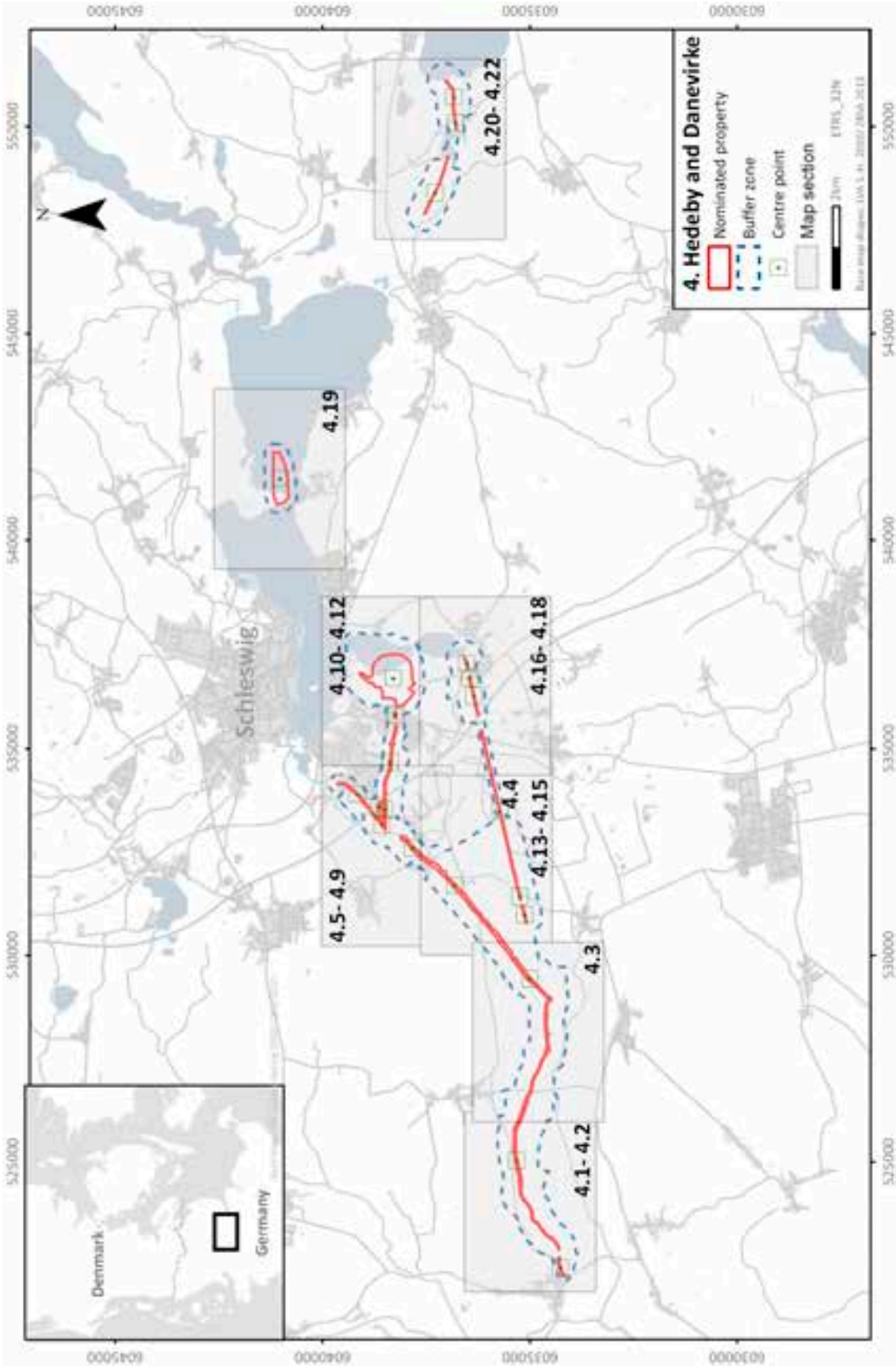
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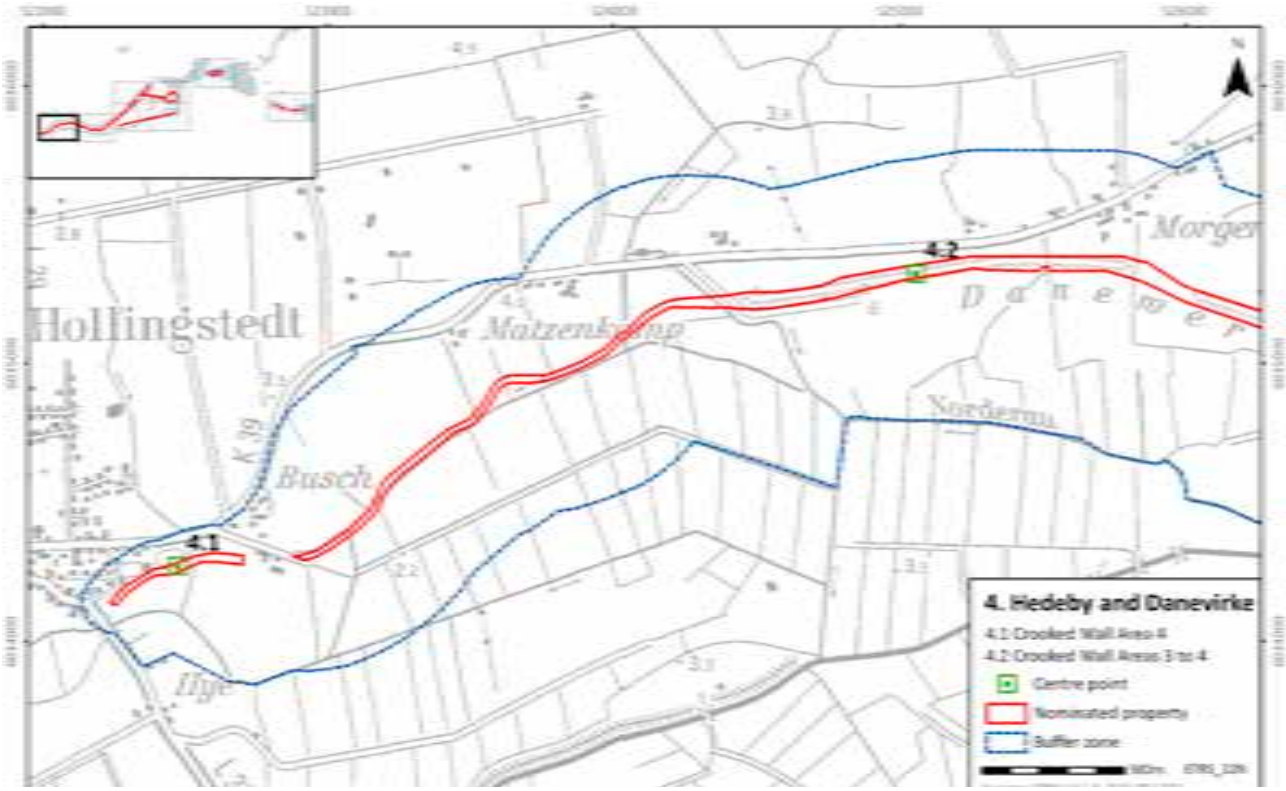
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Centre point
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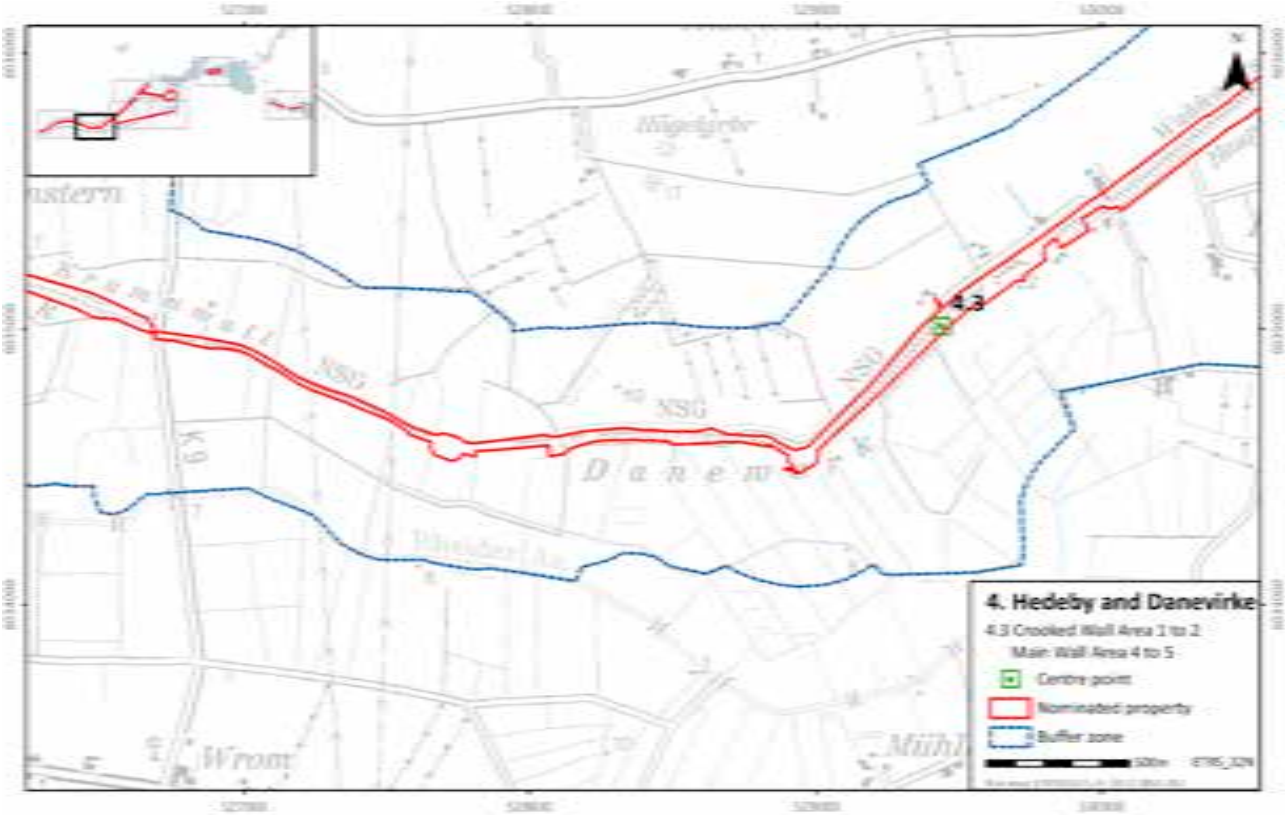
Buffer zone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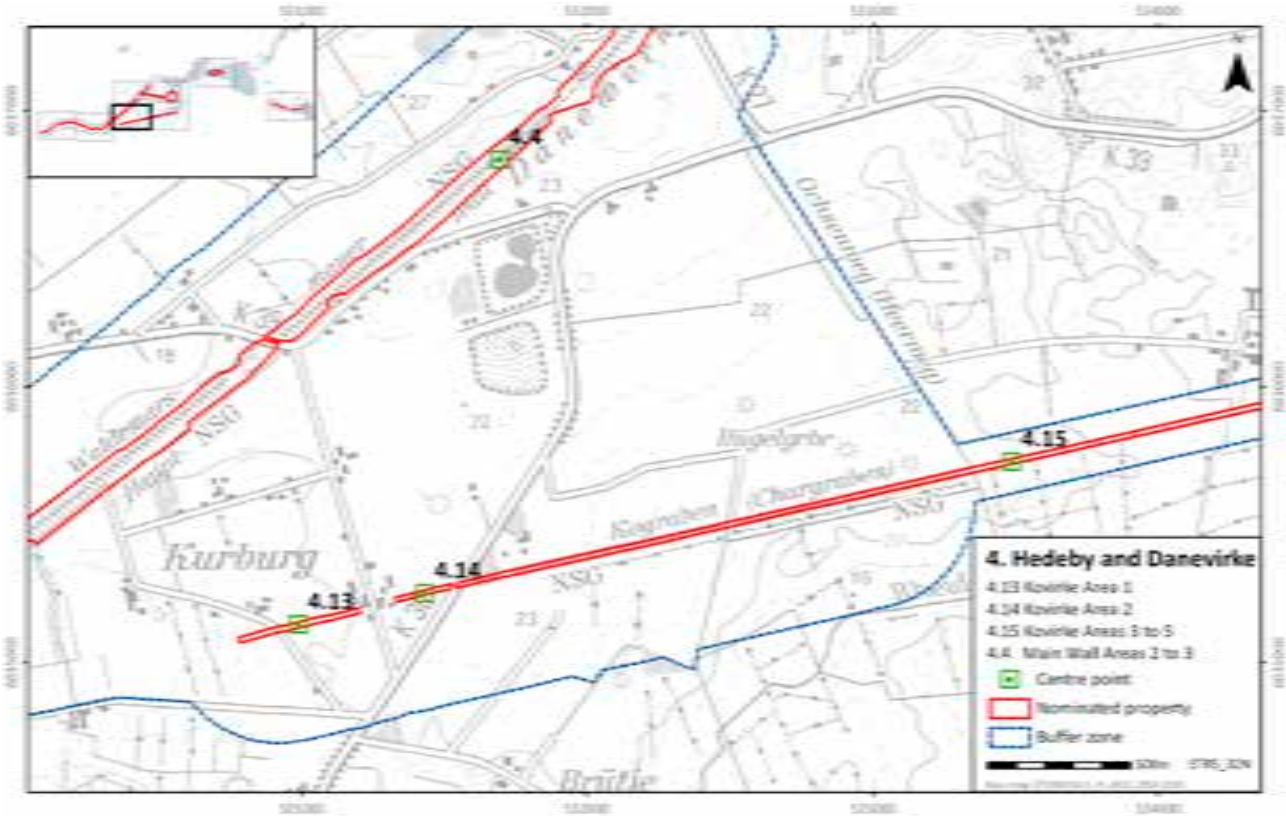
Nominated property
Buffer zone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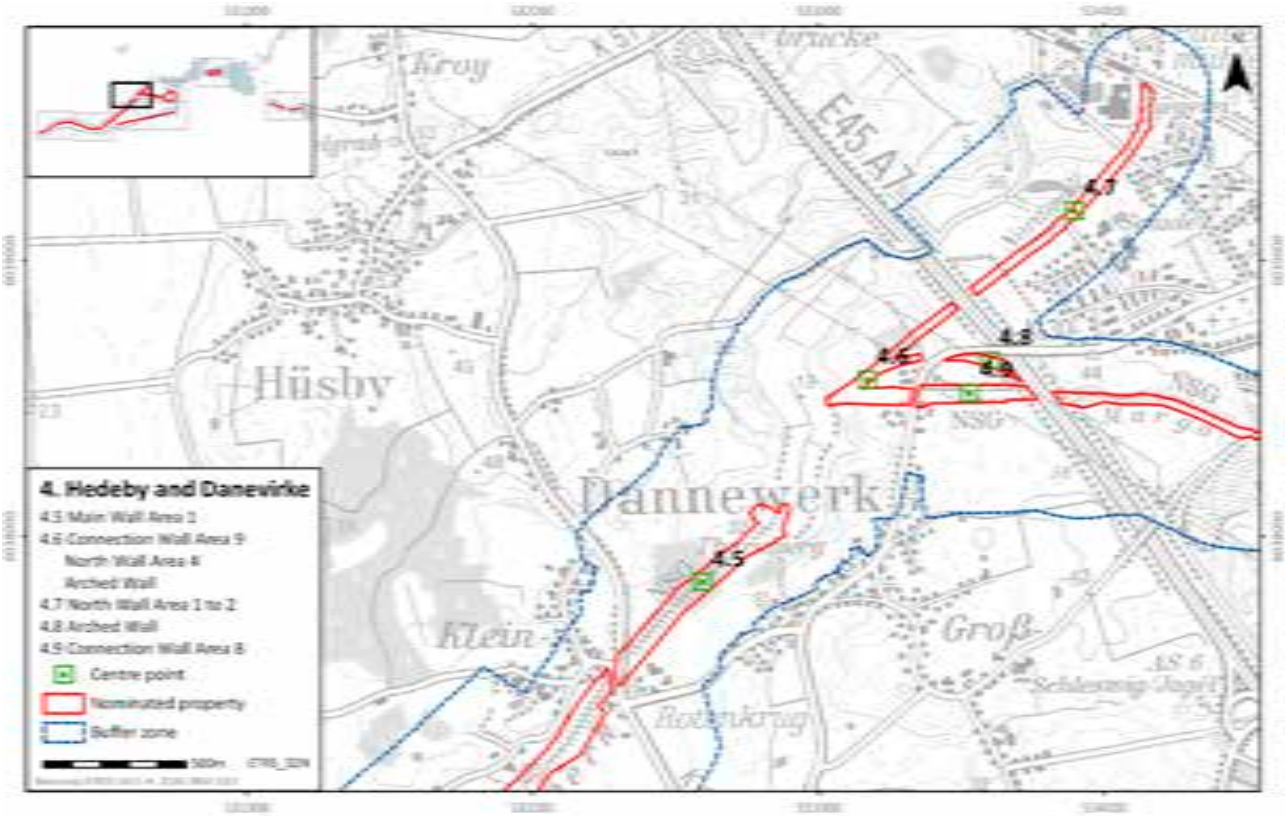
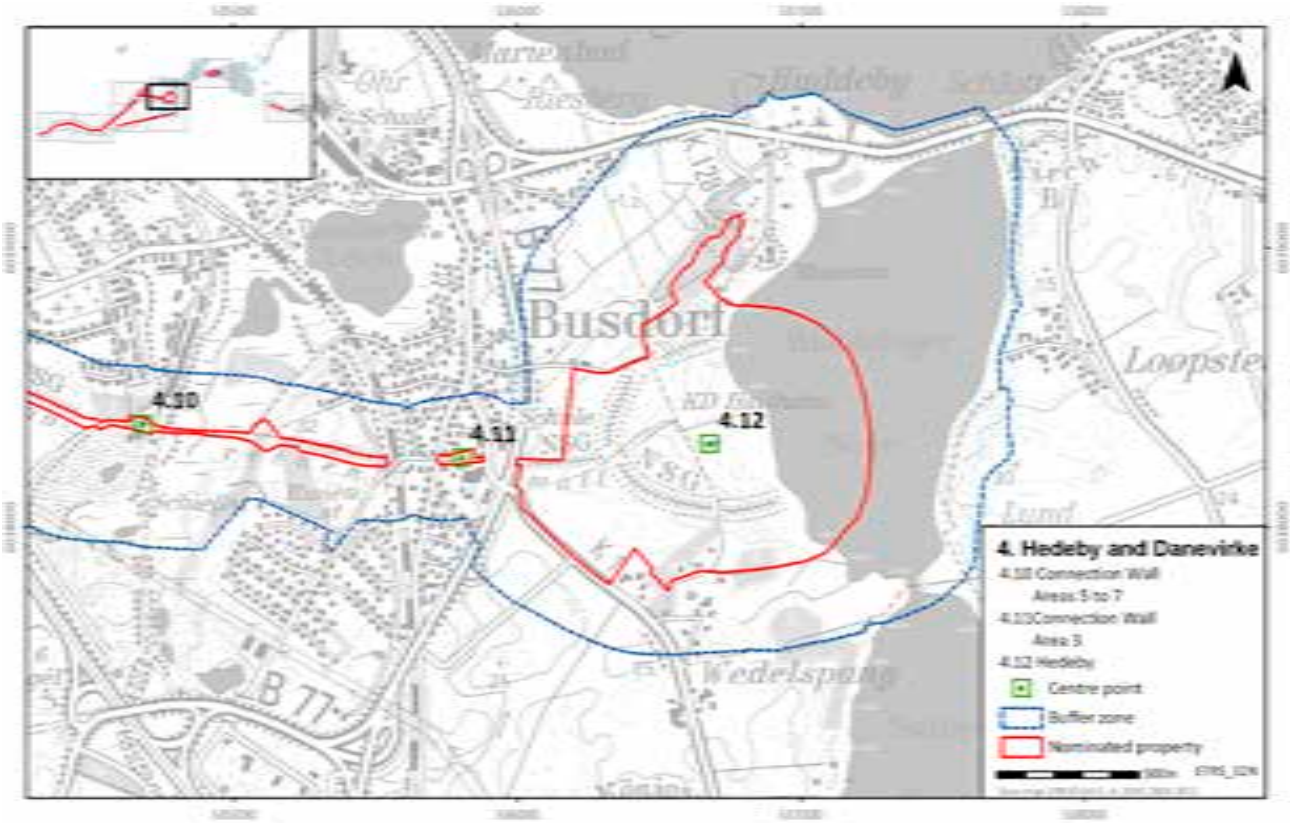
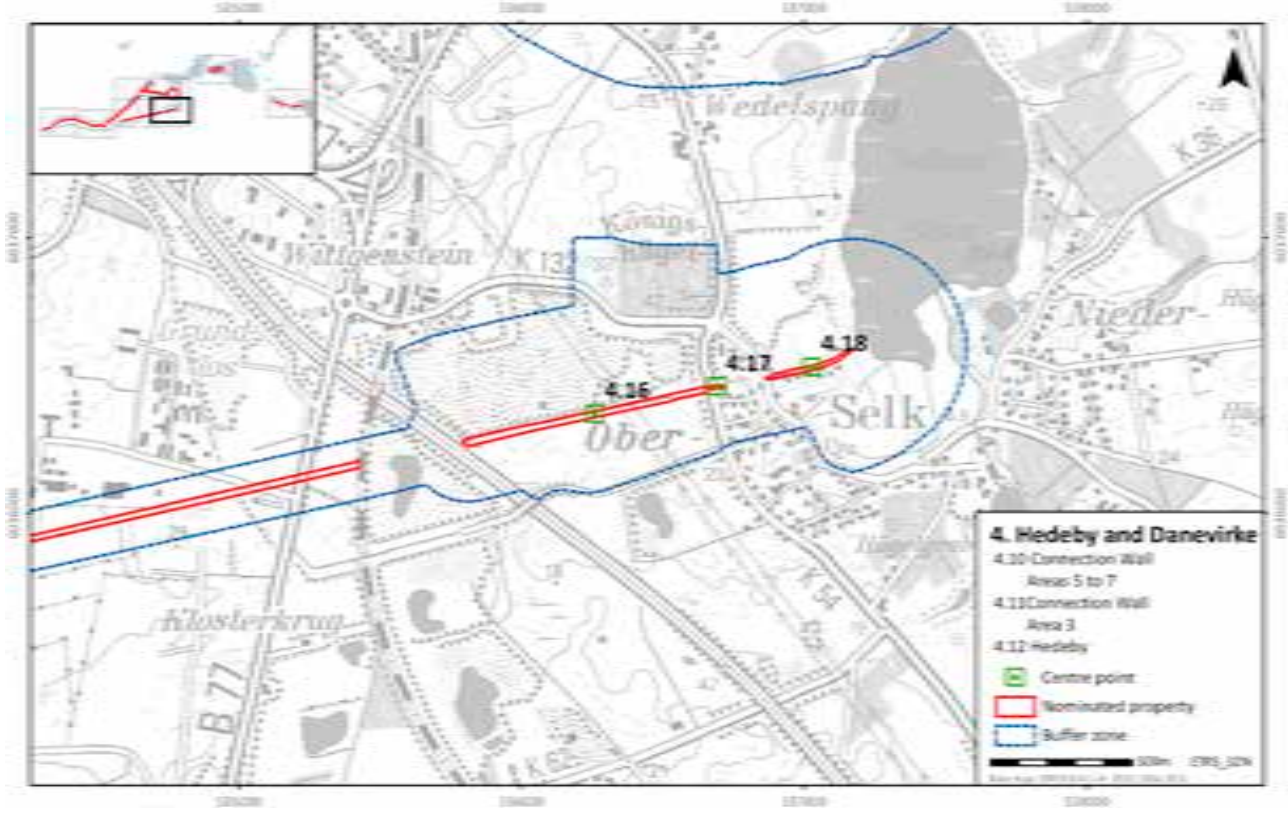
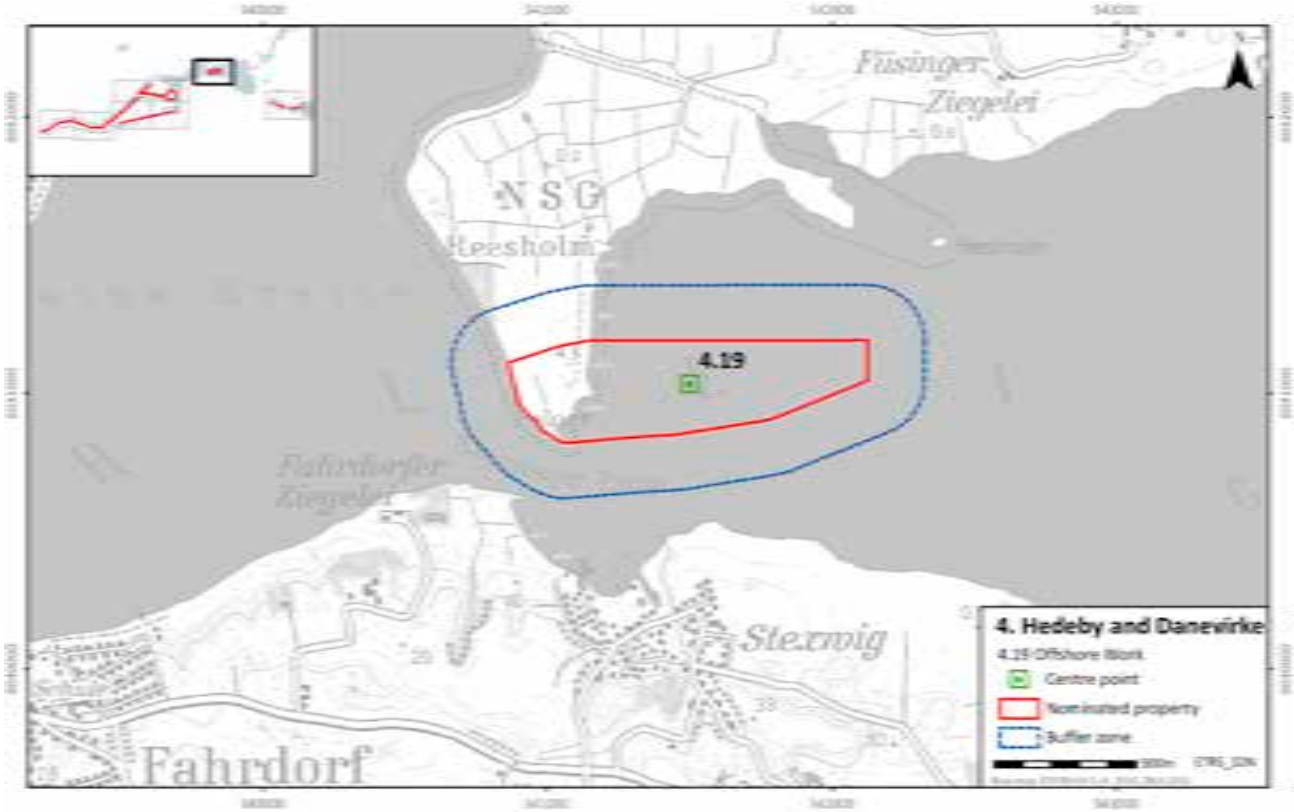
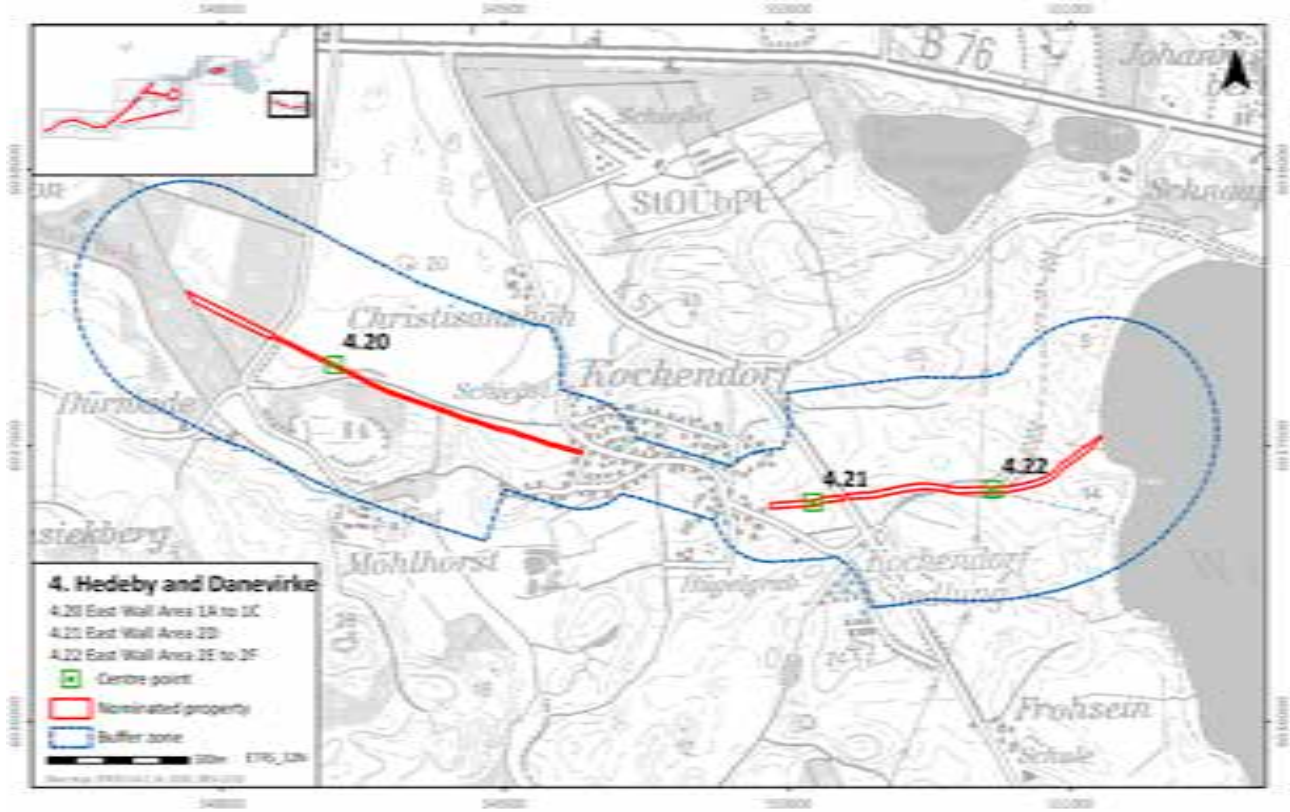
4. Hedeby and Danevirke
4.13 Kovirke Area 1
4.14 Kovirke Area 2
4.15 Kovirke Areas 3 to 5
4.4 Main Wall Areas 2 to 3
Centre point
Nominated property
Buffer zone

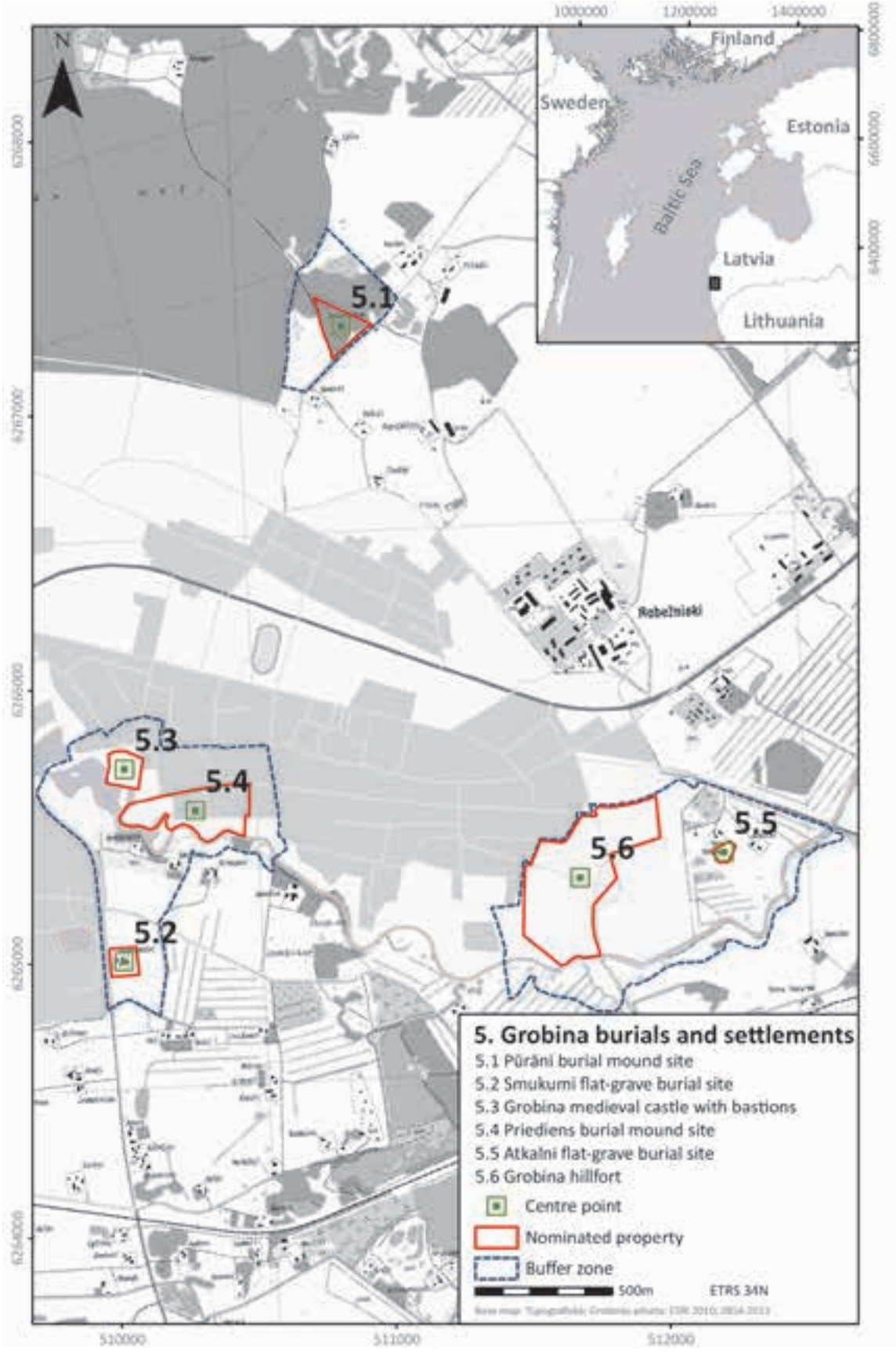

E45 A7
4.7
4.6
4.8
4.9
4.5
Hüsby
Dannewerk
Klein
Groß
4. Hedeby and Danewirke
4.5 Main Wall Area 1
4.6 Connection Wall Area 9
North Wall Area 4
Arched Wall
4.7 North Wall Area 1 to 2
4.8 Arched Wall
4.9 Connection Wall Area 8
Centre point
Nominated property
Buffer zone


4.10
4.11
4.12
Buscdorf
Wedelspang
B 77
4. Hedeby and Danevirke
4.10 Connection Wall
Areas 5 to 7
4.11 Connection Wall
Area 3
4.12 Hedeby
Centre point
Buffer zone
Nominated property


4.16
4.17
4.18
Wedelspang
Waldgenstein
Ober-
Selk
Nieder-
B 77
4. Hedeby and Danevirke
4.10 Connection Wall
Areas 5 to 7
4.11 Connection Wall
Area 3
4.12 Hedeby
Centre point
Nominated property
Buffer zone


Flensburger
Ziegelei
NSG
Heesholm
4.19
Fahrdorfer
Ziegelei
Steinwig
Fahrdorf
4. Hedeby and Danewirke
4.19 Offshore Work
Centre point
Nominated property
Buffer zone


B 76
Schuby
Christiansholm
4.20
Tochendorf
Dürrade
Möhlhorst
4.21
4.22
Frohsein
4. Hedeby and Danewirke
4.20 East Wall Area 1A to 1C
4.21 East Wall Area 2D
4.22 East Wall Area 2E to 2F
Centre point
Nominated property
Buffer zone


1000000
1200000
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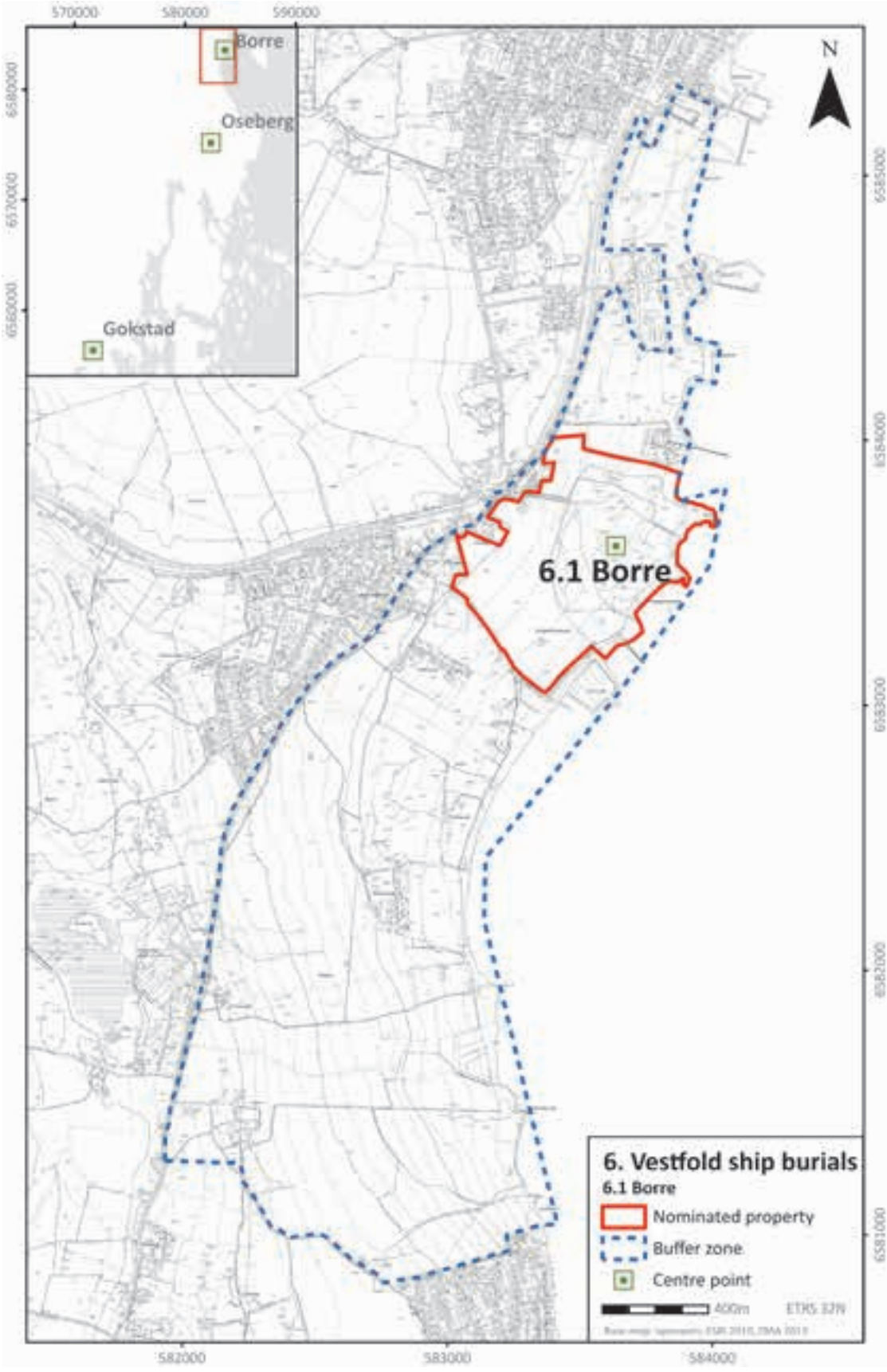
6800000
6600000
6400000
Finland
Sweden
Estonia
Baltic Sea
Latvia
Lithuania
N
5.1
Robežnieki
5.3
5.4
5.5
5.6
5.2
6268000
6267000
6266000
6265000
6264000
510000
511000
512000
5. Grobina burials and settlements
5.1 Pūrāni burial mound site
5.2 Smukumi flat-grave burial site
5.3 Grobina medieval castle with bastions
5.4 Priediens burial mound site
5.5 Atkalni flat-grave burial site
5.6 Grobina hillfort
Centre point
Nominated property
Buffer zone
500m
ETRS 34N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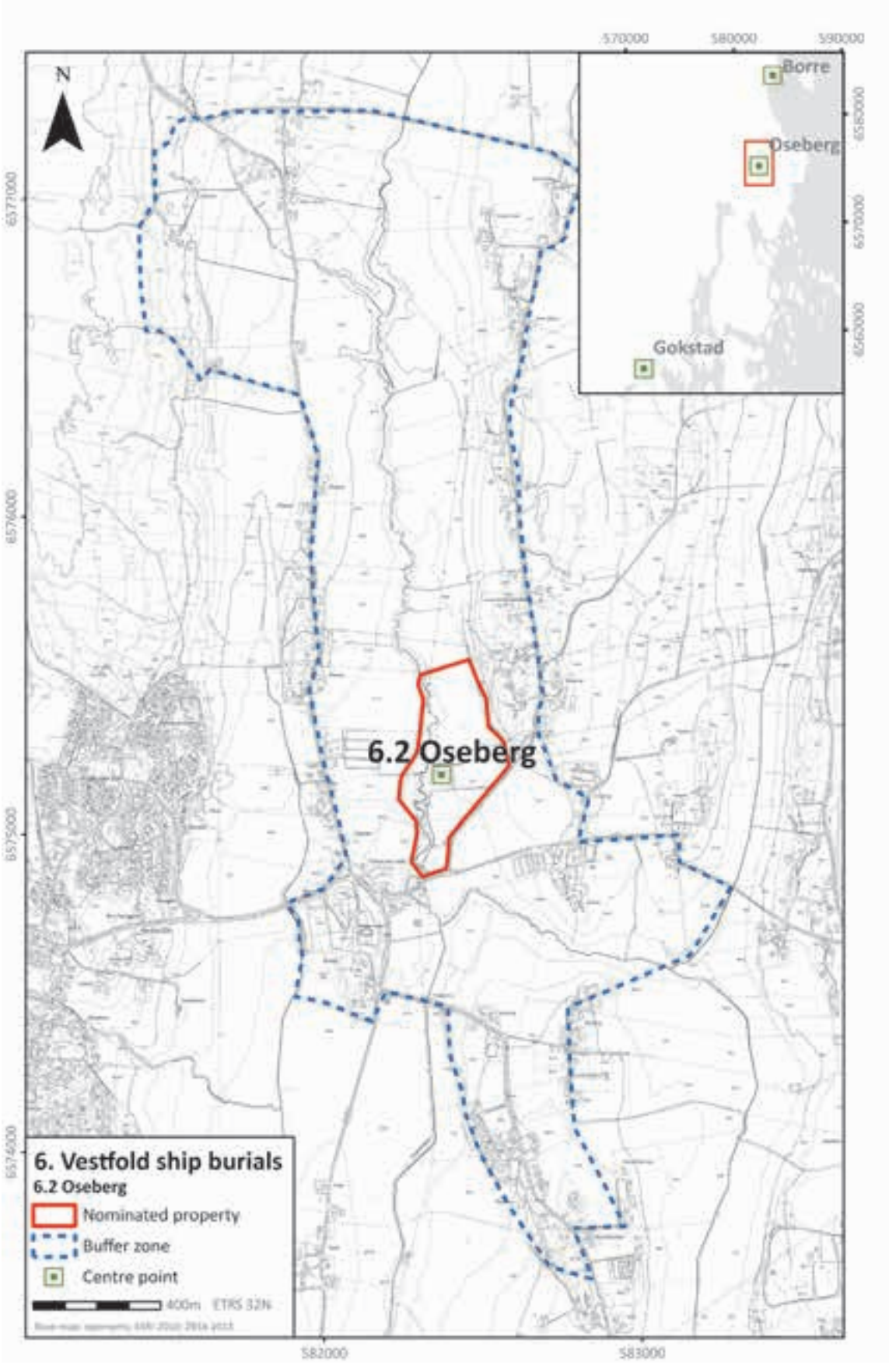
580000
590000
6580000
6570000
6560000
Borre
Oseberg
Gokstad
N
6.1 Borre
6585000
6584000
6583000
6582000
6581000
582000
583000
584000
6. Vestfold ship burials
6.1 Borre
Nominated property
Buffer zone
Centre point
400m
ETRS 32N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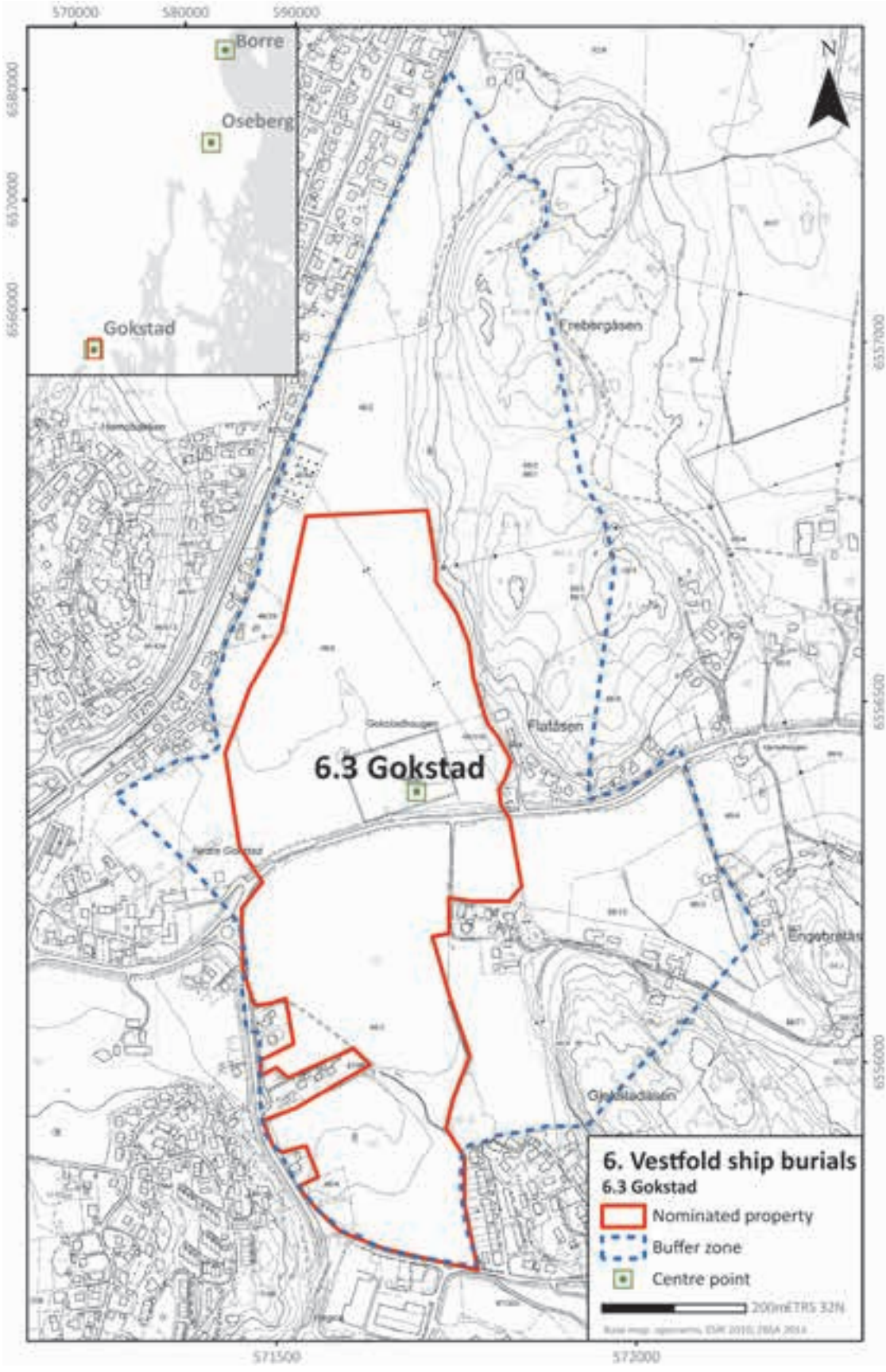
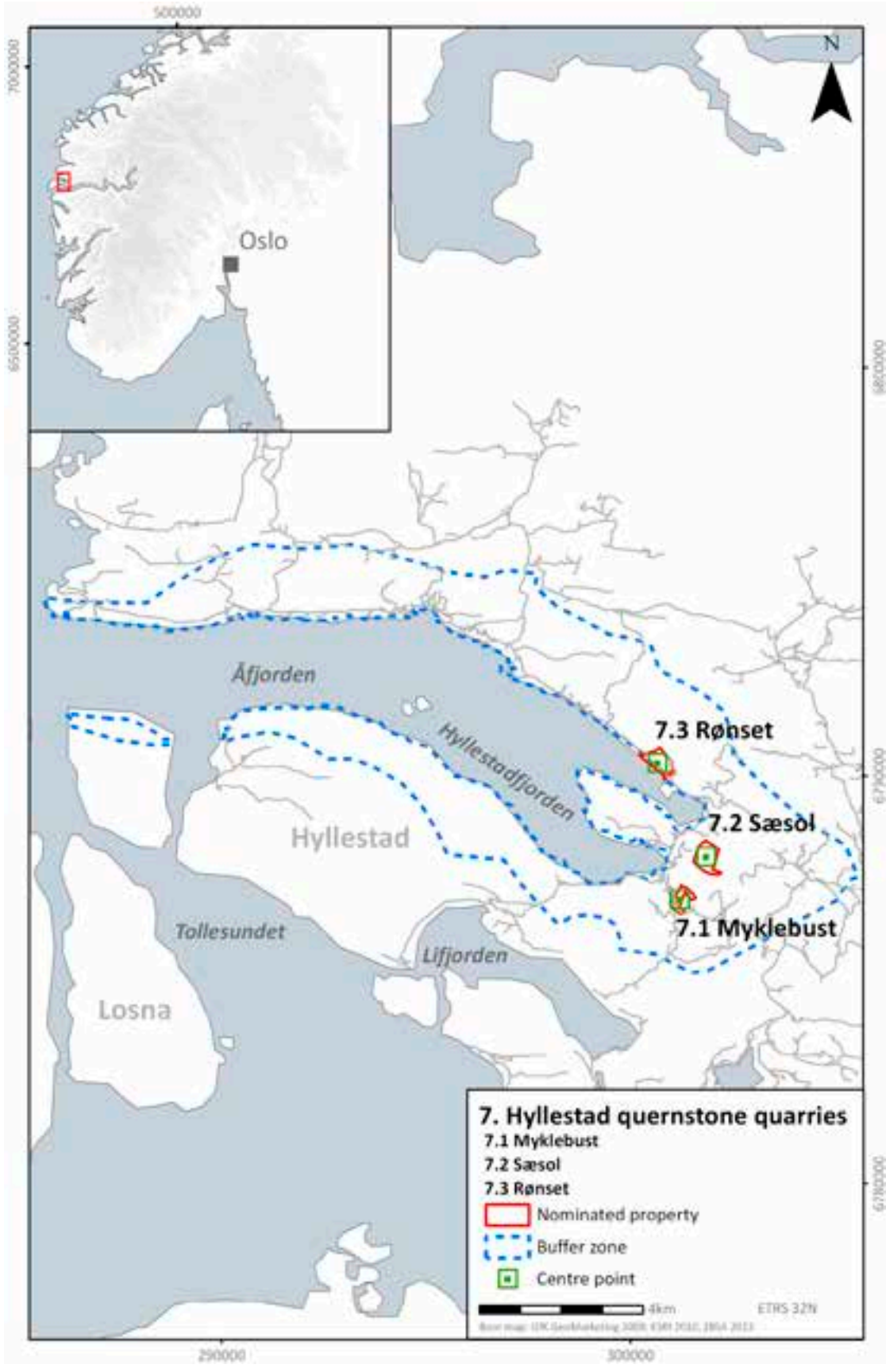
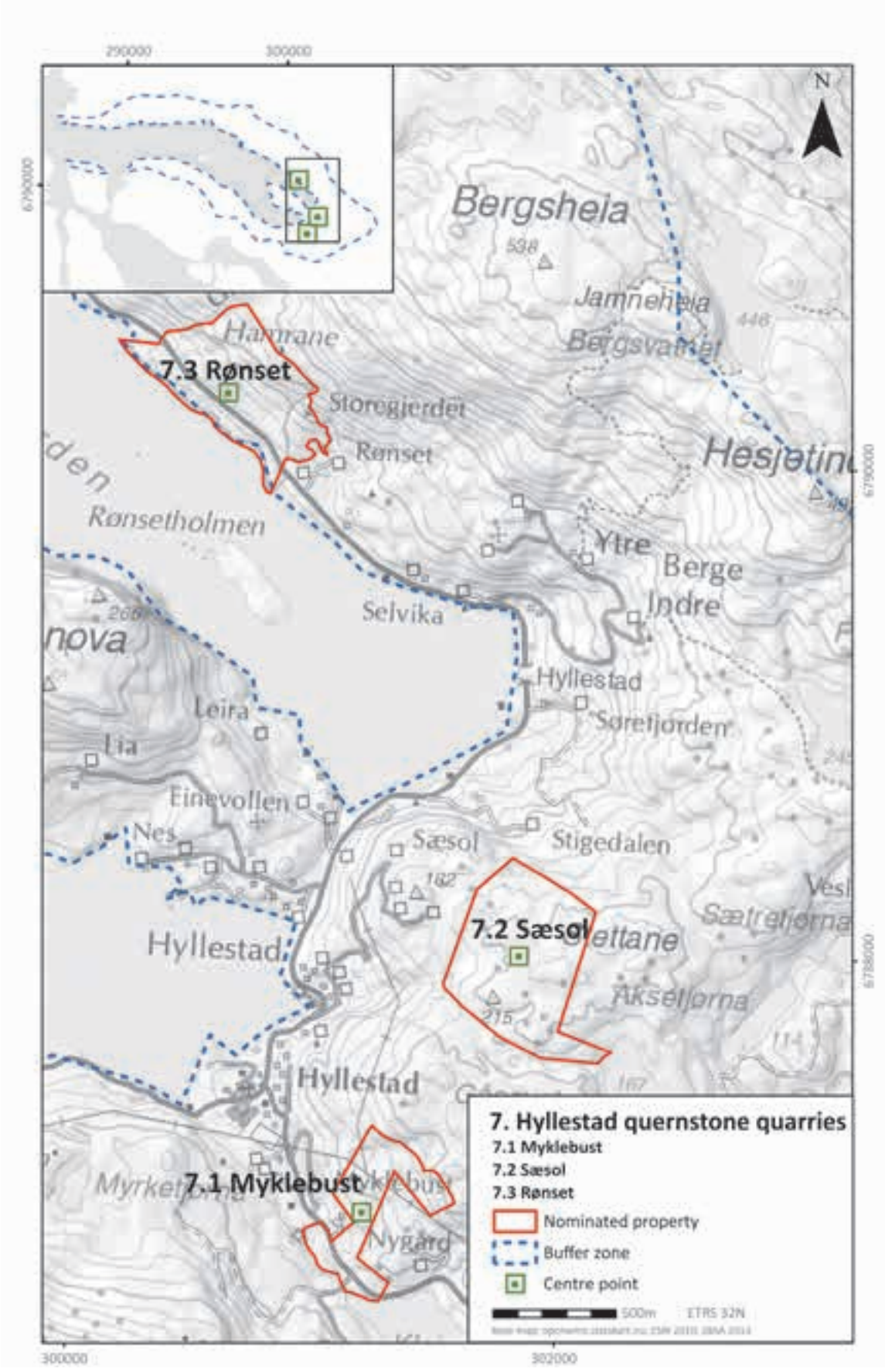
580000
590000
N
Borre
Oseberg
Gokstad
6582000
6570000
6562000
6577000
6576000
6575000
6574000
6.2 Oseberg
6. Vestfold ship burials
6.2 Oseberg
Nominated property
Buffer zone
Centre point
400m
ETRS 32N
582000
583000


570000
580000
590000
6580000
6570000
6560000
Borre
Oseberg
Gokstad
N
Frebergåsen
6.3 Gokstad
Flatåsen
6557000
6556500
6556000
571500
572000
6. Vestfold ship burials
6.3 Gokstad
Nominated property
Buffer zone
Centre point
200mETRS 32N


500000
7000000
6500000
N
Oslo
Åfjorden
Hyllestadfjorden
7.3 Rønset
7.2 Sæsol
7.1 Myklebust
Hyllestad
Tollesundet
Lifjorden
Losna
6800000
6700000
6600000
290000
300000
7. Hyllestad quernstone quarries
7.1 Myklebust
7.2 Sæsol
7.3 Rønset
Nominated property
Buffer zone
Centre point
4km
ETRS 32N


290000
300000
N
Bergsheia
598
Jamnehøia
Bergsvatnet
Hammane
7.3 Rønset
Storegjerdet
Rønset
Hesjetin
Rønsetholmen
Ytre Berge
Indre
Selvika
Hyllestad
Søreltjorden
Leira
Lia
Einevollen
Nes
Sæsol
Stigedalen
182
7.2 Sæsol
Sætrefjorna
Akseljorna
215
114
Hyllestad
Hyllestad
7.1 Myklebust
Myrkefjellet
Nygard
6790000
6788000
300000
302000
7. Hyllestad quernstone quarries
7.1 Myklebust
7.2 Sæsol
7.3 Rønset
Nominated property
Buffer zone
Centre point
500m
ETRS 32N

CRITERIA UNDER WHICH PROPERTY IS NOMINATED

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

DRAFT STATEMENT OF OUTSTANDING UNIVERSAL VALUE

BRIEF SYNTHESIS

The serial transnational property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th – 11th centuries AD.

During this time, commonly referred to as the "Viking Age", the Norse people travelled from their homelands in Scandinavia – as Vikings – for the purposes of trade, raiding, exploration and the search for new lands to settle. They interacted with pre-existing local populations during the course of their sea voyages eastwards and westwards and thereby also exerted substantial influence on areas outside Scandinavia. The nominated property includes five component parts from the core region of Scandinavia and two North European sites from the area of expansion and interaction.

The Jelling mounds, runic stones and church in Denmark and the Þingvellir National Park in Iceland are World Heritage Sites.

The Viking Age was an important transitional period in Northern Europe which, for the most part, had never been part of the Roman Empire. Made up of a network of politically unstable chiefdoms and petty kingdoms in the 8th century AD, the region became dominated by the formation of Medieval states by the 11th century AD. All the nomination's component parts are located where essential historical actions took place during the Viking Age. These actions have left various physical constructions which illuminate central themes in the making and development of Viking Age societies. The component parts are scientific keys to an understanding of this transition and the concurrent changes in economy, society and religion. This series of sites thereby constitutes an important testimony relative to the cultural-historical period of the Viking Age in the geo-cultural region of Northern Europe.

The serial property comprises the archaeological remains of a trading town and an assembly site, as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places, covering the entire duration of the Viking Age. Consequently, the series of sites testifies to the diversity of remarkable material evidence available from the Viking Age, and provides valuable information on the changing societal, economic, religious and political conditions of the time supported by contemporary written sources.

JUSTIFICATION FOR CRITERIA

Criterion (iii). In the Viking Age, local tribal societies in Northern Europe became an integral part of the civilisation of the European Middle Ages. The development of shipbuilding technology and navigational skills for sea voyages was crucial for the political, religious, social and economic processes of this transition. In the course of this transition, the people of the Viking Age became the first to inhabit the North Atlantic islands of the Faroes and Iceland. They were also the first European people to reach Greenland and even North America in historical times.

The interaction with people and power structures in Europe changed the Scandinavian societies.

Collectively, this series of the seven component parts explains the change in pagan local traditions, the shift in settlement structures and economic concepts and the development of parliamentary traditions and of lasting institutions of power in Northern Europe, characterising the transition to Medieval states, through a remarkable material heritage extending from the 8th – 11th centuries and rendering the ensemble an exceptional testimony to the Viking Age.

Criterion (iv): The migration and the interaction of the Norse with other peoples in Europe led to new architectural expressions and uses of the landscape which are preserved today as impressive archaeological sites dating from the 8th – 11th centuries.

This series of Viking Age localities consists of archaeological key-sites that illustrate the emergence of Medieval societies and states in Northern Europe during the Viking Age.

It encompasses the archaeological remains of sites of governance with symbolic and religious monuments, assembly sites for deciding legal and political issues, defensive structures such as ring fortresses and border defences, production sites such as quarries, trading towns with harbours, burial places such as ship burials in large barrows and sites of cultural interaction. These types of archaeological sites are distinctive for the Viking Age in their specific form, architecture and layout, use and function and material expression and, as such, bear exceptional witness to this time of transition in Northern Europe.

STATEMENT OF INTEGRITY

All the archaeological sites in this nomination belong to the same cultural-historic group, which is characteristic of the Viking Age in Northern Europe. They cover the entire historical period from the 8th to the 11th century AD. Due to the archaeological nature of the remains, a large number of the sites from the Viking Age have been destroyed over the course of time, whereas others still await detection. This series constitutes a selection of well-preserved Viking Age sites of great historical and scientific value, which are large enough to be able to preserve these values for the future. Together, the component parts complement each other exceptionally well, reflecting different aspects of the transition from tribal chiefdoms to Medieval kingdoms in the Viking Age and therefore serving as "scientific keys" to its understanding.

The borders of the nominated property are defined by the extent of the complete archaeological sites of the component parts. Representing all important historical building phases and structures, the archaeological material and substance, the construction and layout and the situation and setting of these sites are adequately intact in order to convey the significance of each component part and of the property as a whole.

STATEMENT OF AUTHENTICITY

The credibility and truthfulness of the evidence for the interpretation of the archaeological sites in this series for the transitional process from tribal societies to Medieval states in the Viking Age is conveyed by the genuine archaeological material, as well as the construction and layout and the situation and setting of the component parts. All archaeological remains of the nominated property have retained their authentic construction and layout since the Viking Age. The archaeological material and substance of the nominated property is also entirely authentic. All building phases, features and their remains relevant to this nomination date from the Viking Age or are likely to do so. Important topographical conditions and features, which were historically availed of in the choice of site and the layout of the structures, are still recognisable even today. Where recent repairs and restorations have been carried out, these can clearly be distinguished from the historical material and are based on complete and detailed archaeological documentation.

The credibility of the evidence has been corroborated by numerous written sources and extensive research using established archaeological and scientific methods. The theories employed in the interpretation of the sites and of historical processes in the Viking Age are derived from this research and have wide acceptance in the scientific community.

REQUIREMENTS FOR PROTECTION AND MANAGEMENT

The values and integrity of the nominated serial property are managed and safeguarded by management systems on two levels. The integrity and values of the entire serial property are maintained within a transnational management framework, with all States Parties committed to the aims of protecting, preserving, monitoring and promoting the Outstanding Universal Value of the nominated property.

The day-to-day maintenance of all attributes conveying value, integrity and authenticity takes place on the level of the individual component part. The responsibility for the management on this level remains within each State Party.

All component parts and their buffer zones are protected according to the legal systems in place in each State Party. In addition, the majority of sites and areas are owned by public bodies. The various protection and planning mechanisms, and acts which apply directly to the component parts, are sufficient to guarantee the protection and preservation of the Outstanding Universal Value, integrity and authenticity of the whole nominated property and its component parts.

Funding is provided by the participating States Parties or regional government for the Steering Group and the Secretariat, while the funds for the management of each component part are generally sustained by the responsible States Parties or regional authorities.

A core issue of cooperation among the partners in the serial nomination and beyond is the building of an active network between Viking Age key sites and their stakeholders which will improve management, conservation, communication and monitoring of the Viking Age heritage on an international level. Among the main tasks for this network will be to improve the overall parameters for the common monitoring system, to maintain and enhance support from regional and local communities and other stakeholders for the preservation of the sites and their settings and to secure financial support in order to improve maintenance and presentation of the sites.

Threats common to most of the sites included in this nomination, such as land use, housing developments and visitor pressure, and also natural agents like plant growth and animal activities, need to be tackled in a collaborative way. More site-specific threats, such as damage by development, specific animals or plants, or earthquakes, require additional research and training and the exchange of expertise, knowledge and mutual support.

The overall management group will consist of representatives from National Heritage Boards, Cultural Heritage Agencies and/or Ministries in the respective States Parties, according to the legal responsibilities awarded them by their respective cultural heritage laws. The respective site managers will also form part of the group.

The formation of the overall management group will take place in 2014 and the first meeting is planned for December 1st 2015.

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E-mail: postur@mrn.is
www.menntamalaraduneyti.is

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www.kulturstyrelsen.dk

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Fax: (+49) 4621 387 55
E-mail: info@alsh.landsh.de
http://www.schleswig-holstein.de/ALSH/EN/ALSH_node.html

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Fax: (+371) 6722 8808
E-mail: vkpai@mantojums.lv
www.mantojums.lv

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Tel: (+47) 9820 2810
Fax: (+47) 2294 0404
E-mail: lr@ra.no
www.riksantikvaren.no

IDENTIFICATION OF THE PROPERTY

1

1.A
STATES PARTIES

ICELAND, DENMARK, GERMANY, LATVIA AND NORWAY.

1.B
STATE, PROVINCE OR REGION

ICELAND: Bláskógabyggð Municipality

DENMARK: Vejle Municipality, Vesthimmerland Municipality, Mariagerfjord Municipality and Slagelse Municipality

GERMANY: Schleswig-Flensburg and Rendsburg-Eckernförde Administrative Regions, State of Schleswig-Holstein

LATVIA: Grobiņa Municipality

NORWAY: Horten, Tønsberg and Sandefjord Municipalities in Vestfold County, Hyllestad Municipality in Sogn and Fjordane County

1.C
NAME OF PROPERTY

VIKING AGE SITES IN NORTHERN EUROPE

1.D
GEOGRAPHICAL COORDINATES, AREA OF PROPERTY PROPOSED FOR INSCRIPTION (HA) AND PROPOSED BUFFER ZONE (HA)

TABLE 1.1 *Geographical coordinates, area of proposed property and buffer zone.*

ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT	AREA OF NOMINATED COMPONENT PARTS (HA)	AREA OF THE BUFFER ZONE (HA)	MAP N°
1	**Þingvellir**		Iceland	N64°15'33" W 21°07'13"	51,4	22734	1.3
2	**Jelling**		Denmark	N 55°45'23" E 9°25'12"	12,5	55,5	1.4
3	**The Trelleborg fortresses**		Denmark		32	1253	
3.1		Aggersborg		N 56°59´43" E 9°15´17"	11	660	1.5
3.2		Fyrkat		N 56°37'23" E 9°46'13"	13	346	1.6
3.3		Trelleborg		N 55°23'39" E 11°15'55"	8	247	1.7
4	**Hedeby and Danevirke**		Germany	N 54°29´33" E 9°34´02"	227,55	2670	1.8
4.1		Crooked Wall Area 4		N54°27'26" E9°20'52"	1,4		1.9
4.2		Crooked Wall Areas 3 to 4		N54°27'59" E9°23'16"	16,1		1.9
4.3		Crooked Wall Areas 1 to 2 Main Wall Areas 4 to 5		N54°27'48" E9°27'19"	25,2		1.10
4.4		Main Wall Areas 2 to 3		N54°28'46" E9°29'25"	14,4		1.11

TABLE 1.1

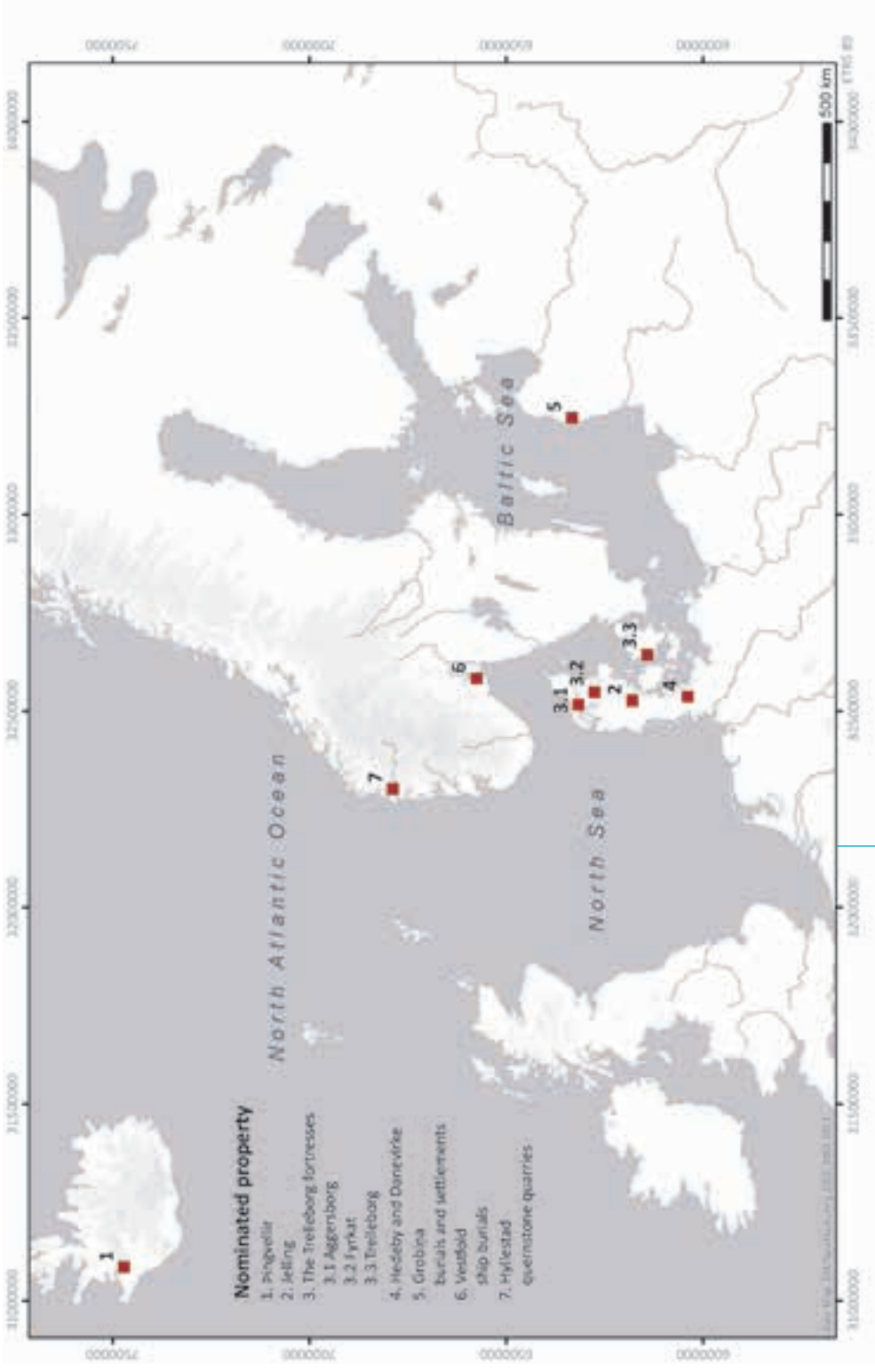
ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT	AREA OF NOMINATED COMPONENT PARTS (HA)	AREA OF THE BUFFER ZONE (HA)	MAP N°
4.5		Main Wall Area 1		N54°29'19" E9°30'15"	6,3		1.12
4.6		Connection Wall Area 9 North Wall Area 4 Arched Wall		N54°29'42" E9°30'48"	3,6		1.12
4.7		North Wall Areas 1 to 2		N54°30'02" E9°31'28"	3,6		1.12
4.8		Arched Wall		N54°29'45" E9°31'12"	0,8		1.12
4.9		Connection Wall Area 8		N54°29'41" E9°31'08"	2,5		1.12
4.10		Connection Wall Areas 5 to 7		N54°29'36" E 9°32'12"	5,8		1.13
4.11		Connection Wall Area 3		N54°29'32" E9°33'14"	0,6		1.13
4.12		Hedeby		N54°29´28" E9°33´59"	95		1.13
4.13		Kovirke Area 1		N54°27'52" E9°28'45"	0,9		1.11
4.14		Kovirke Area 2		N54°27'56" E9°29'10"	0,3		1.11
4.15		Kovirke Areas 3 to 5		N54°28'11" E9°31'04"	7,9		1.11
4.16		Kovirke Area 6		N54°28'30" E9°33'39"	2,1		1.14
4.17		Kovirke Area 7		N54°28'33" E 9°34'02"	0,05		1.14

ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT	AREA OF NOMINATED COMPONENT PARTS (HA)	AREA OF THE BUFFER ZONE (HA)	MAP N°
4.18		Kovirke Area 8		N54°28'36" E9°34'21"	0,5		1.14
4.19		Offshore Work		N54°31'00" E9°38'32"	36,2		1.15
4.20		East Wall Area 1A to 1C		N54°28'57" E9°44'53"	1,9		1.16
4.21		East Wall Area 2D		N54°28'40" E9°46'27"	0,5		1.16
4.22		East Wall Area 2E to 2F		N54°28'41" E9°47'02"	1,9		1.16
5	**The Grobiņa burials and settlements**		Latvia	N 56°32'06" E 21°09'58"	26,8	97,8	1.17
5.1		Porāni (Pūrāni) burial mound site		N 56°32'56" E 21°10'32"	2	11,2	1.17
5.2		Smukumi flat-grave burial site		N 56°31'40" E 21°09'45"	1,02	39,1	1.17
5.3		Grobiņa medieval castle with bastions		N 56°32'04" E 21°09'46"	1,4		1.17
5.4		Priediens burial mound site		N 56°31'59" E 21°09'49"	6,2		1.17
5.5		Atkalni flat-grave burial site		N 56°31' 55" E 21°11'57"	0,4	47,4	1.17
5.6		Grobiņa hillfort		N 56°31'50" E 21°11'24"	15,7		1.17

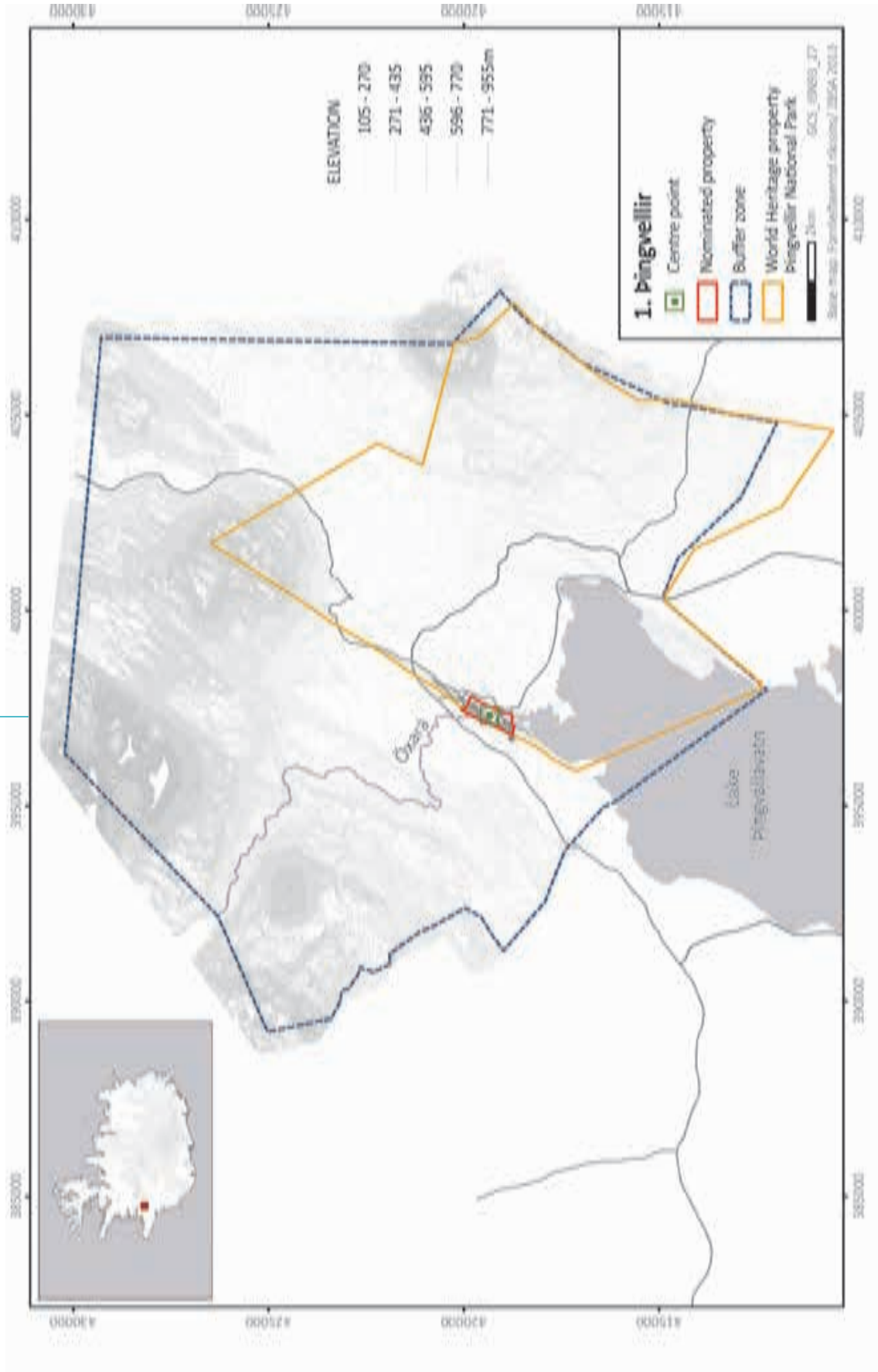
TABLE 1.1

ID N°	NAME OF THE COMPONENT PART	SITES	COUNTRY/ REGION(S)	COORDINATES OF THE CENTRAL POINT	AREA OF NOMINATED COMPONENT PARTS (HA)	AREA OF THE BUFFER ZONE (HA)	MAP N°
6	**The Vestfold ship burials**		Norway		93,5	640,4	1.18
6.1		Borre		N 59°22´58" E 10°28'20"	52,4	323,6	1.19
6.2		Oseberg		N 59°18'27" E 10°26´48"	13,2	273,6	1.20
6.3		Gokstad		N 59°8´26", E 10°15´11"	27,9	43,2	1.21
7	**The Hyllestad quernstone quarries**		Norway		77,2	5928,4	1.22
7.1		Myklebust		N 61°10´00" E 5°18´14"	15,2		1.23
7.2		Sæsol		N 61°10´35" E 5°18´53"	33,3		1.23
7.3		Rønset		N 61°11´47" E 5°17´25"	28,7		1.23
	Total area (in ha)				520,95	33379,1	

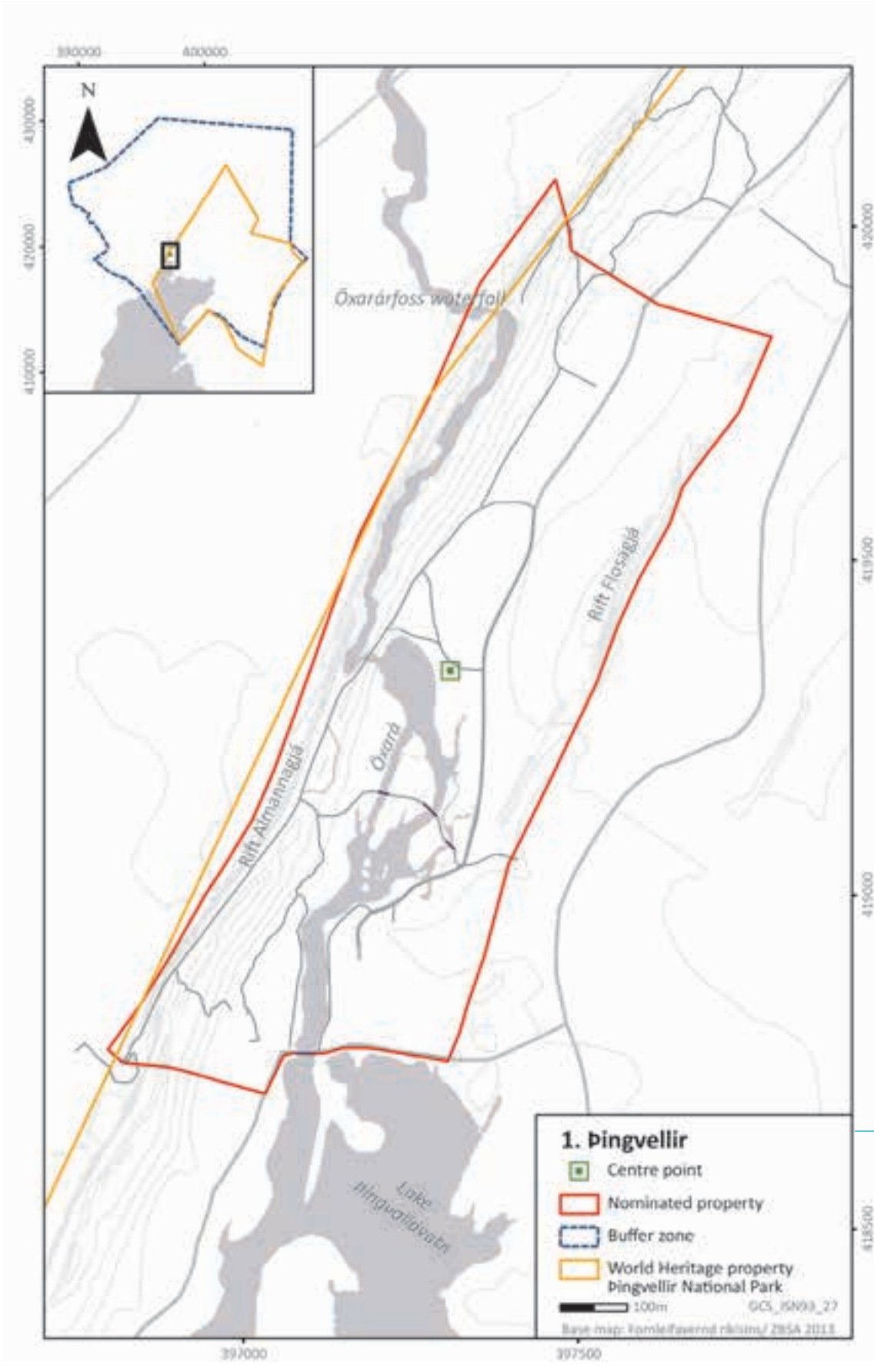
1.E
MAPS AND PLANS SHOWING THE BOUNDARIES OF THE NOMINATED PROPERTY AND BUFFER ZONE



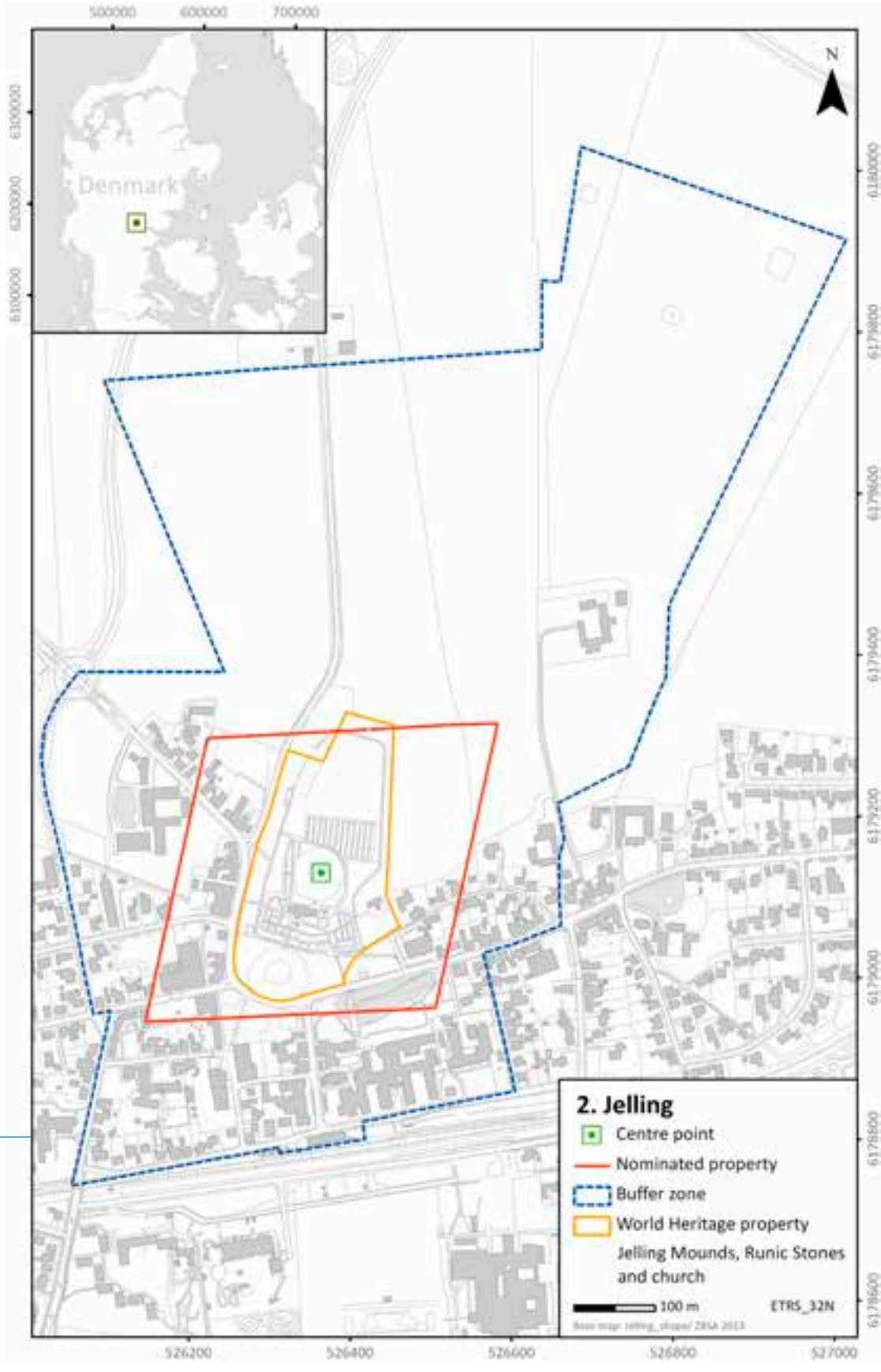
MAP 1.1
General map of the nominated property.



MAP 1.2
The component part of Þingvellir, Iceland, with buffer zone.

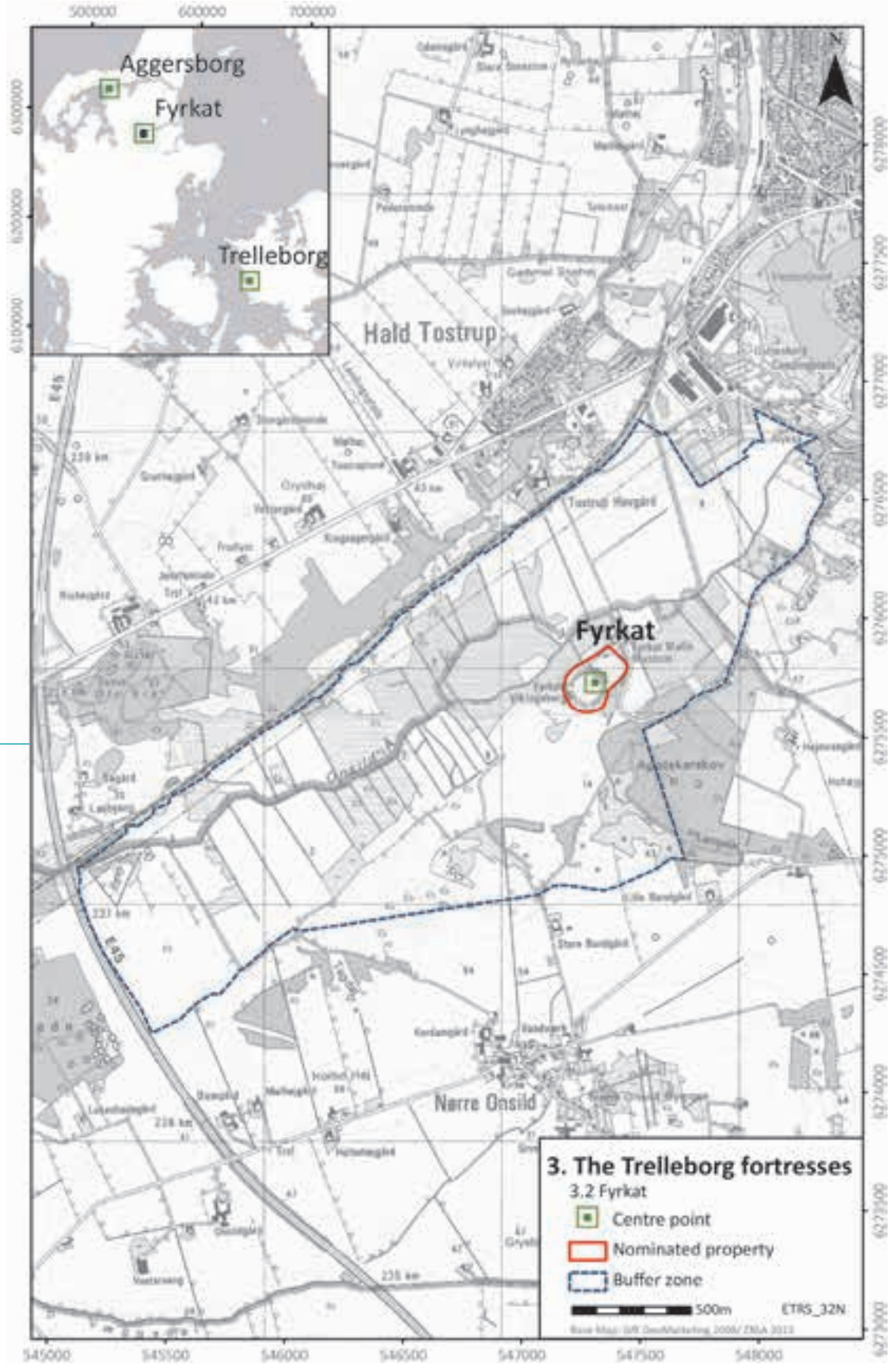


MAP 1.3
The component part of Þingvellir, Iceland, detailed map.

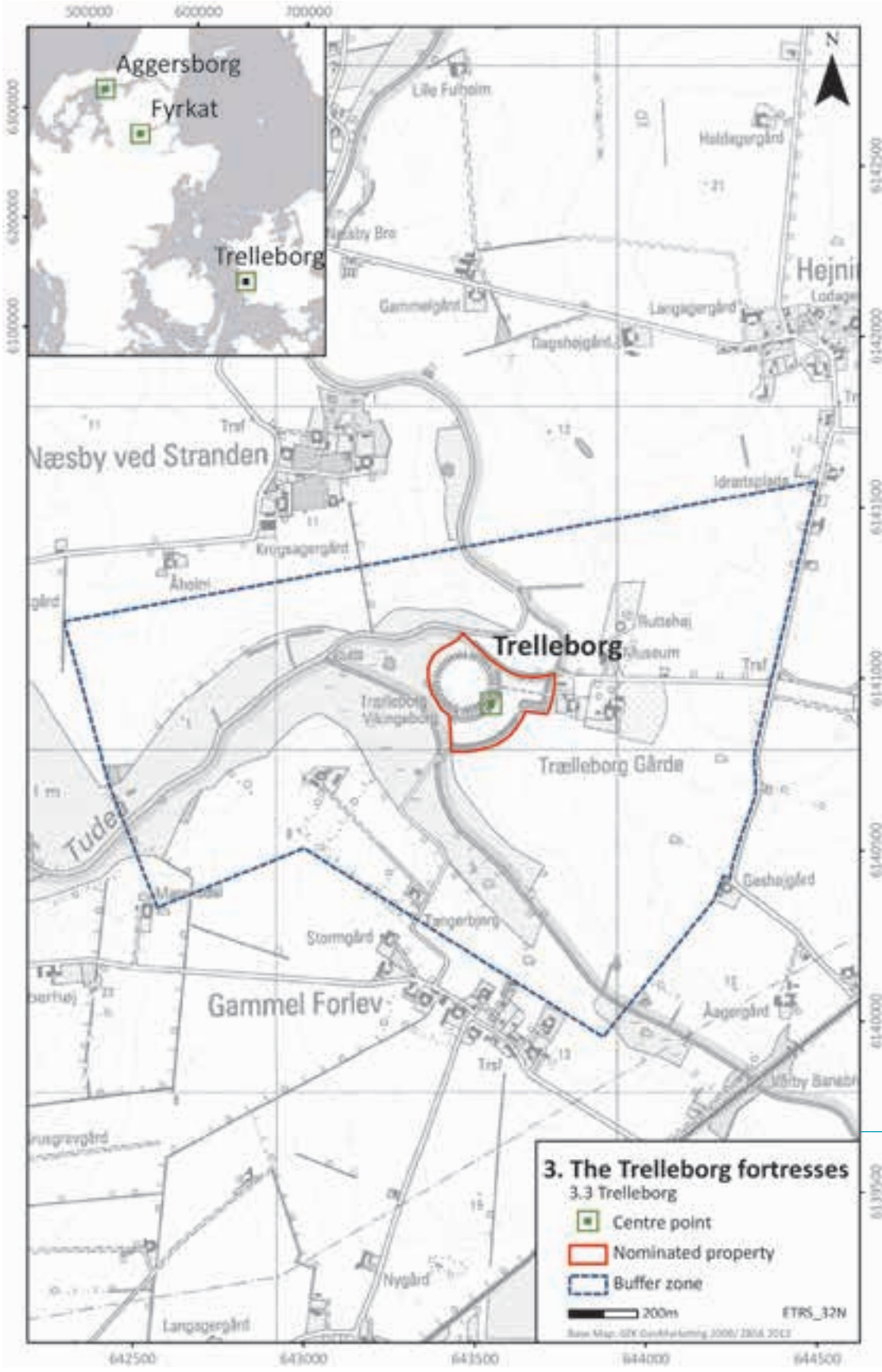


MAP 1.4
The component part of Jelling, Denmark.

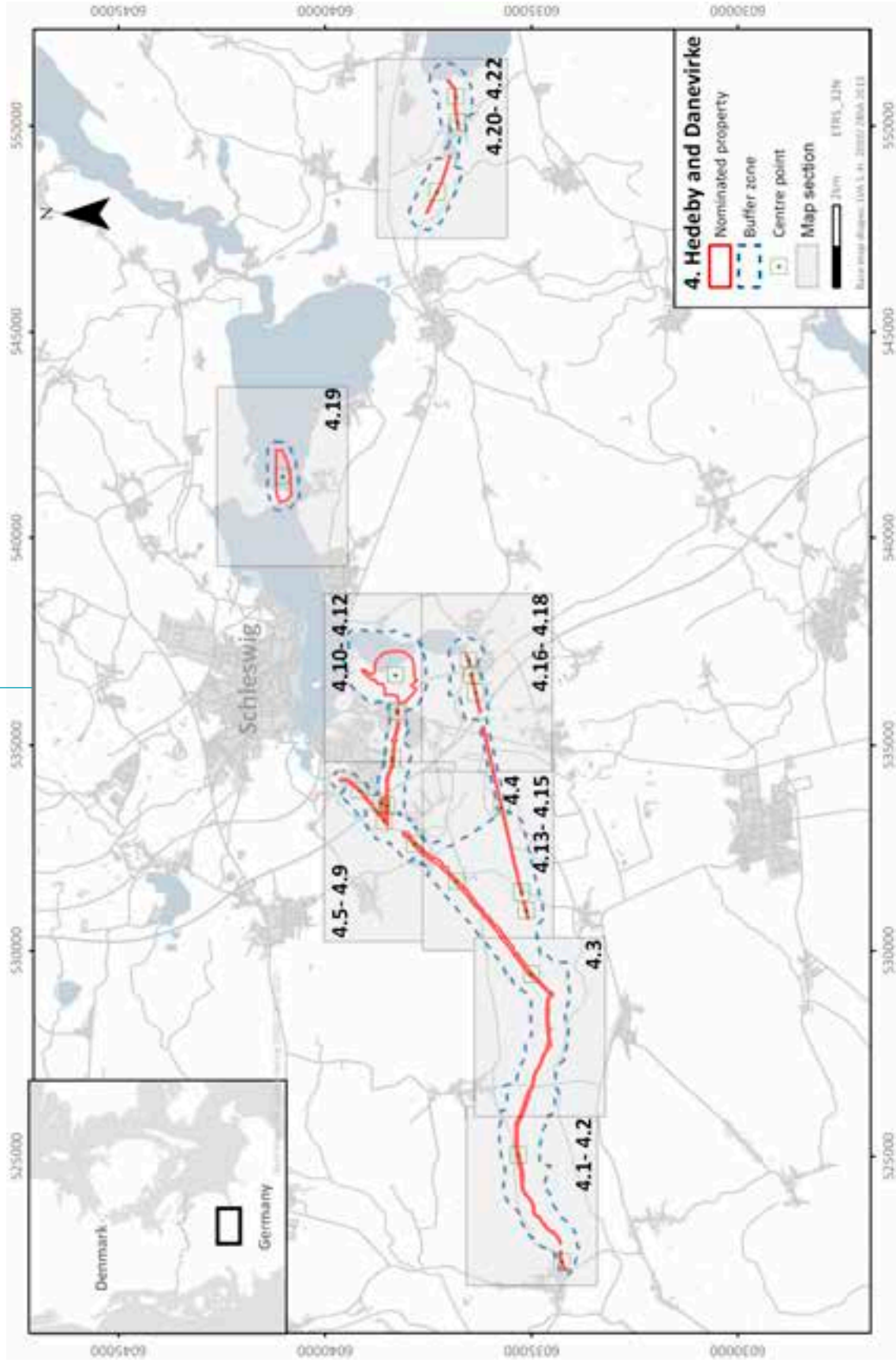
MAP 1.5
The component part of the Trelleborg fortresses, Denmark – Aggersborg.



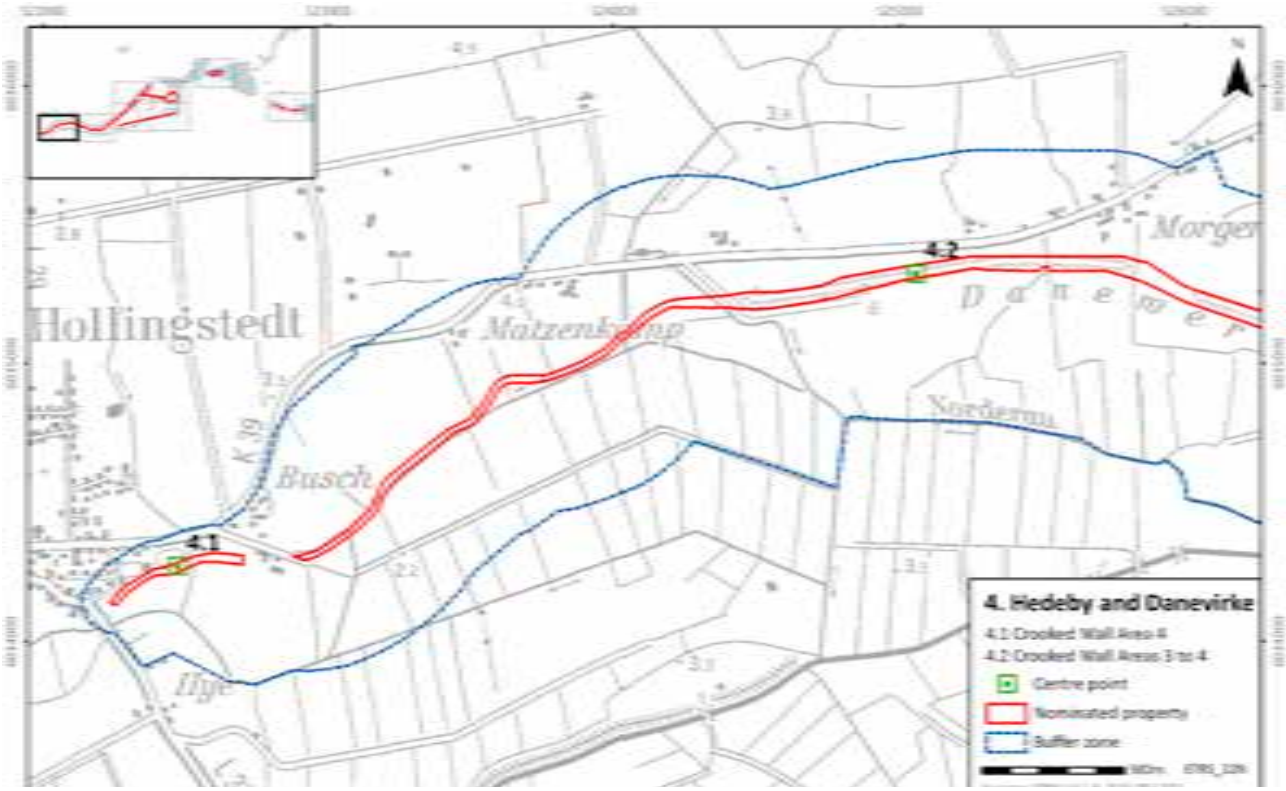
MAP 1.6
The component part of the Trelleborg fortresses, Denmark – Fyrkat.



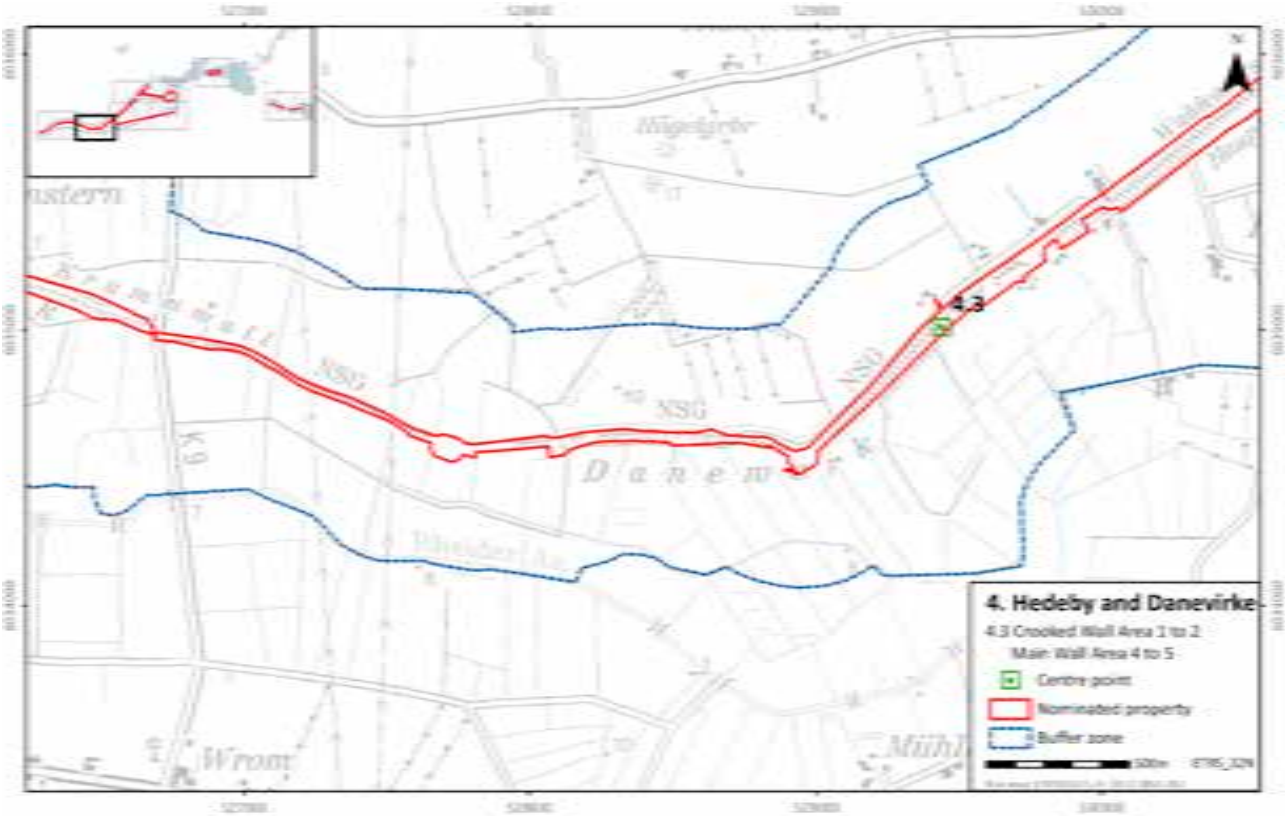
MAP 1.7
The component part of the Trelleborg fortresses, Denmark – Trelleborg.



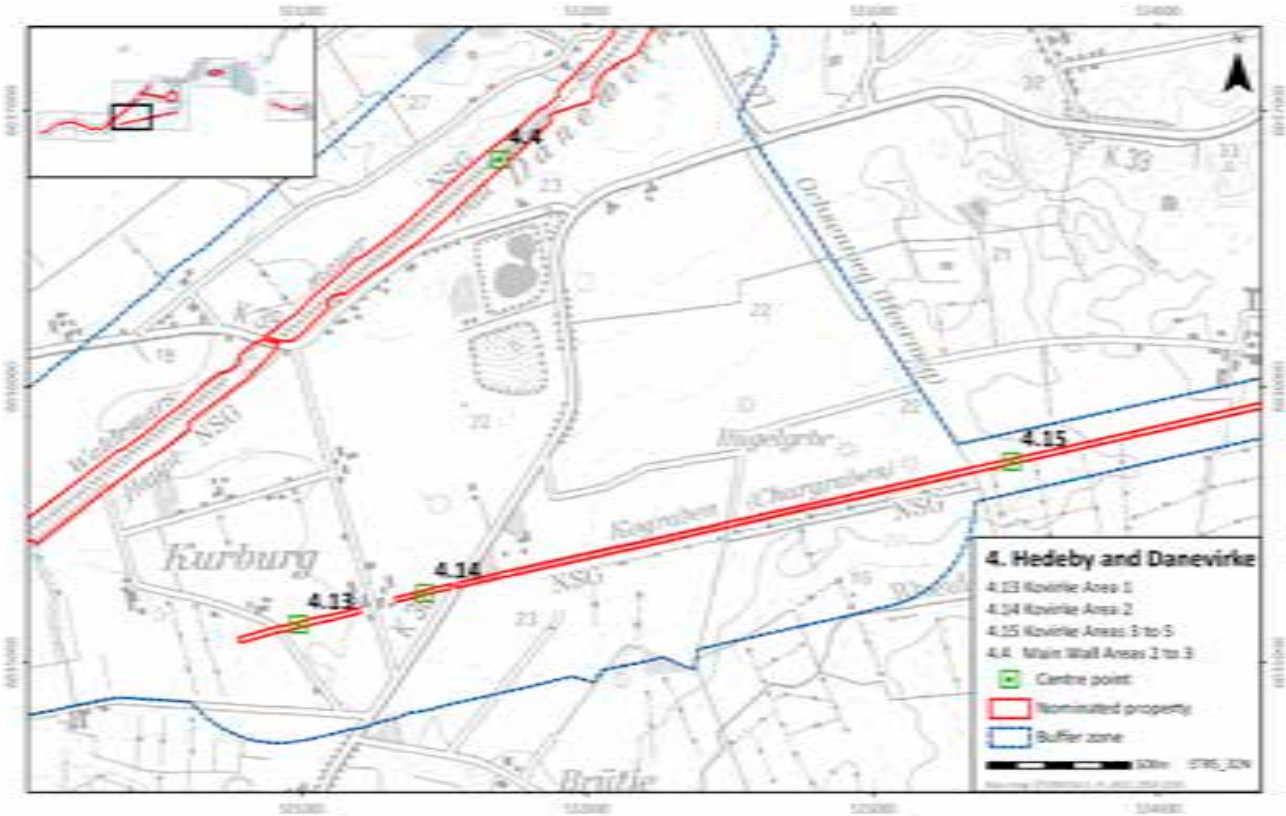
MAP 1.8
The component part of Hedeby and Danevirke, Germany. Overview.



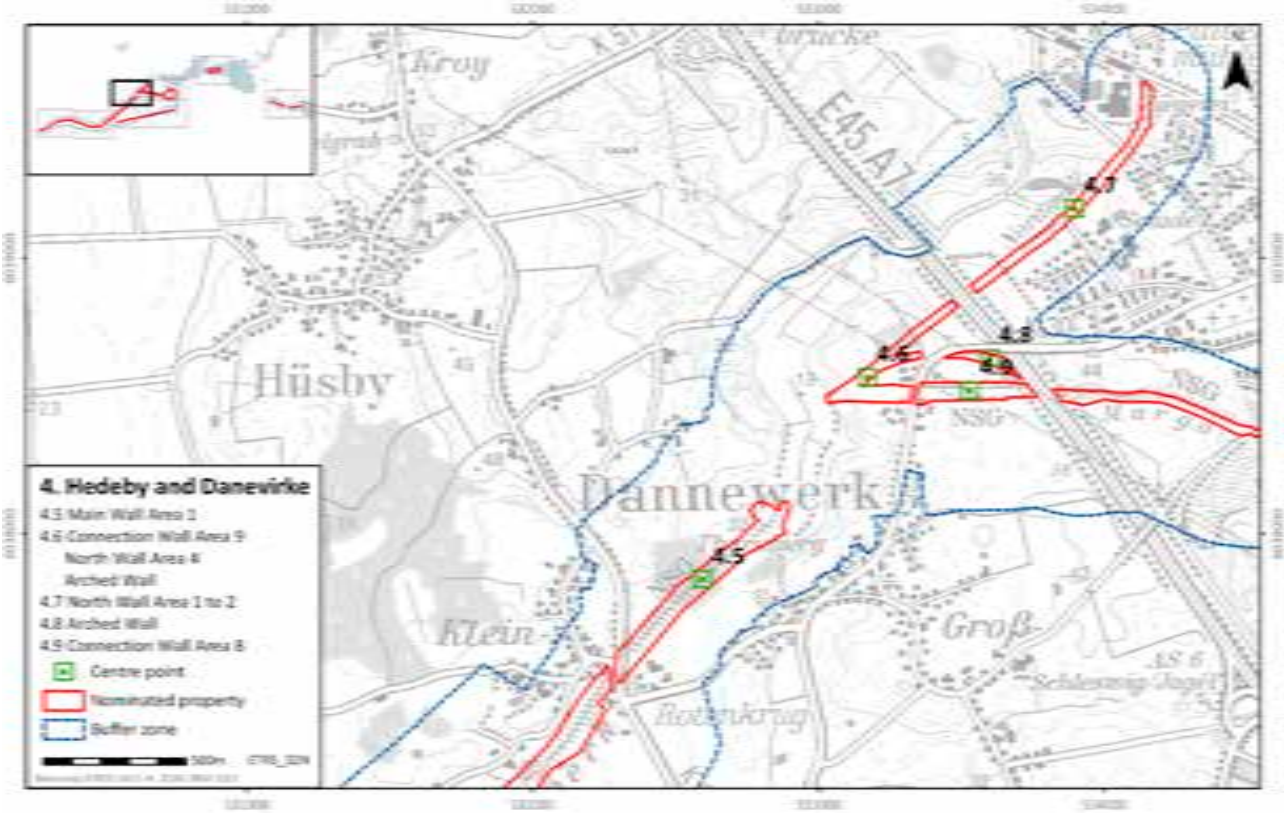
MAP 1.9 *The component part of Hedeby and Danevirke, Germany, sites 4.1 and 4.2.*



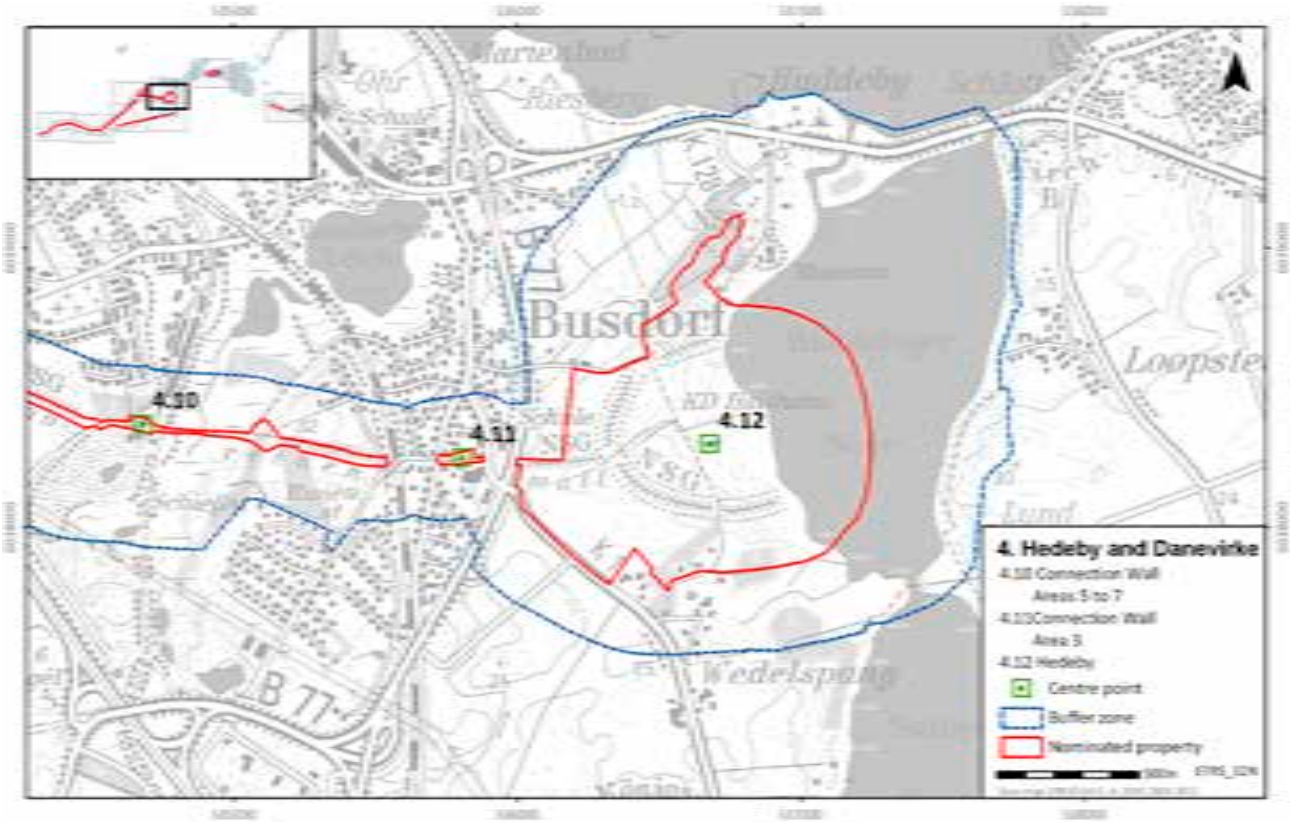
MAP 1.10 *The component part of Hedeby and Danevirke, Germany, site 4.3.*



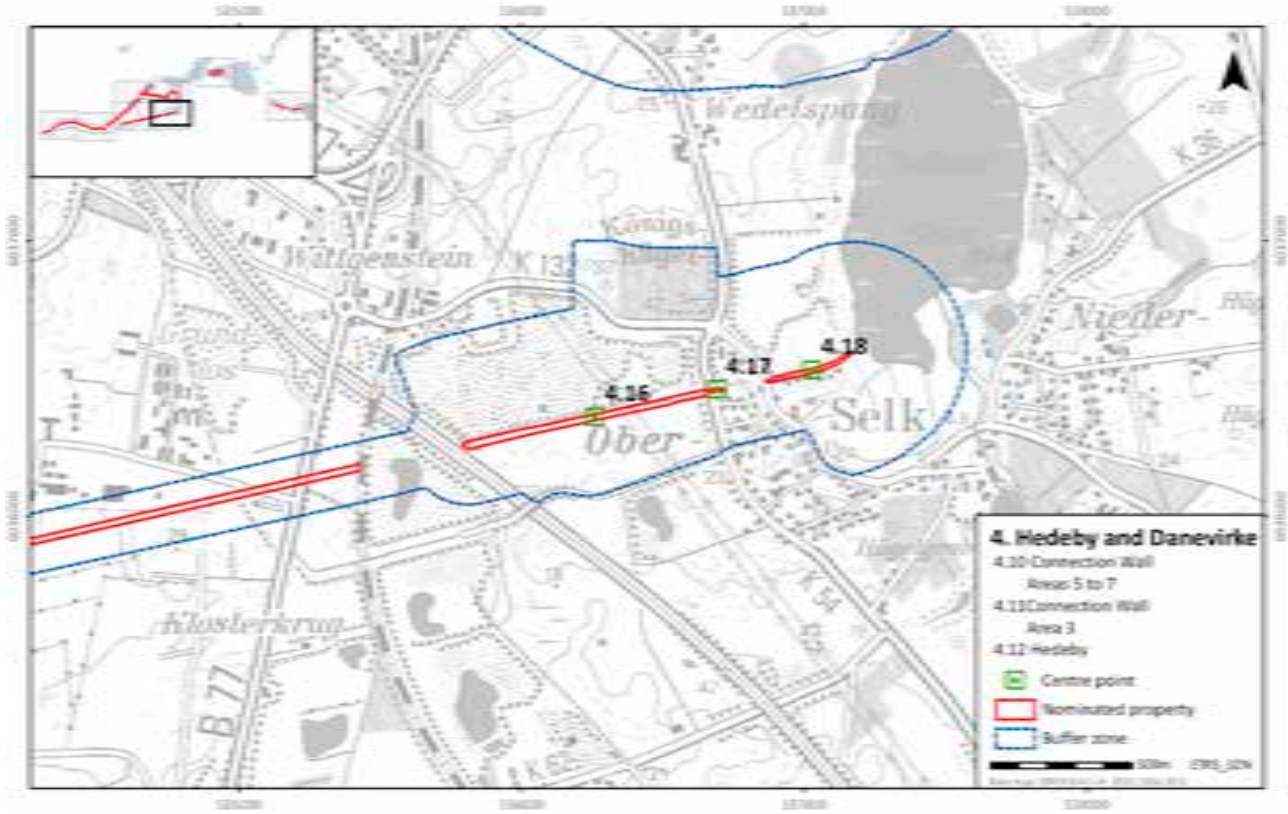
MAP 1.11 *The component part of Hedeby and Danevirke, Germany, sites 4.4 and 4.13–4.15.*



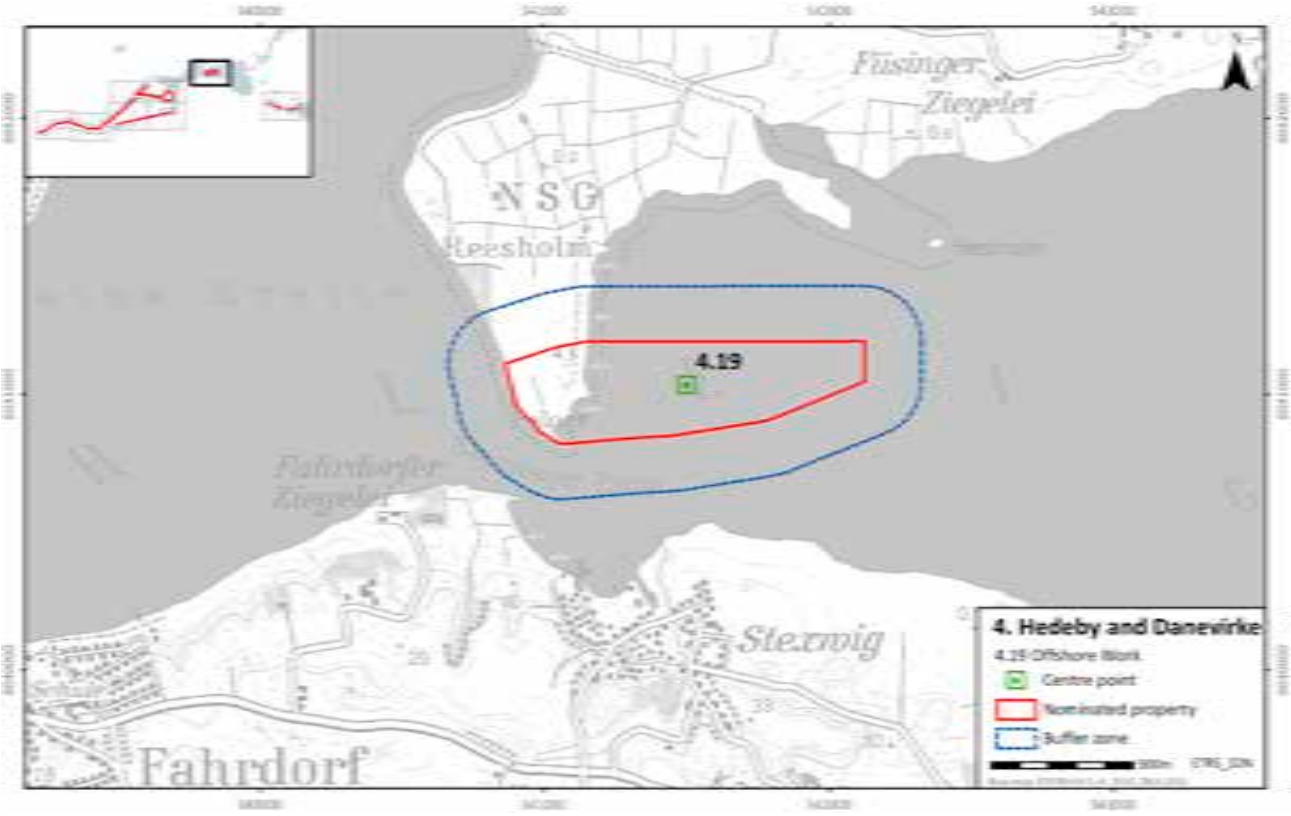
MAP 1.12 *The component part of Hedeby and Danevirke, Germany, sites 4.5–4.9.*



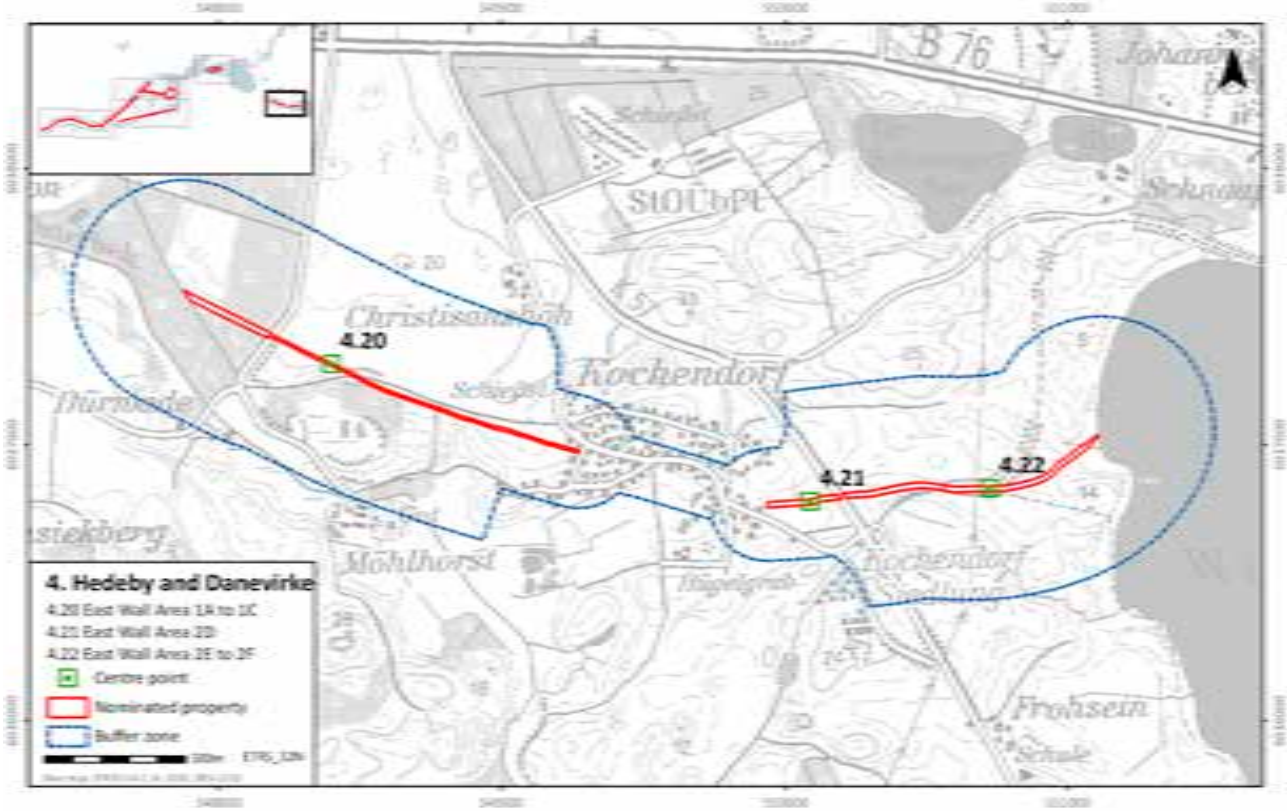
MAP 1.13 *The component part of Hedeby and Danevirke, Germany, sites 4.10–4.12.*



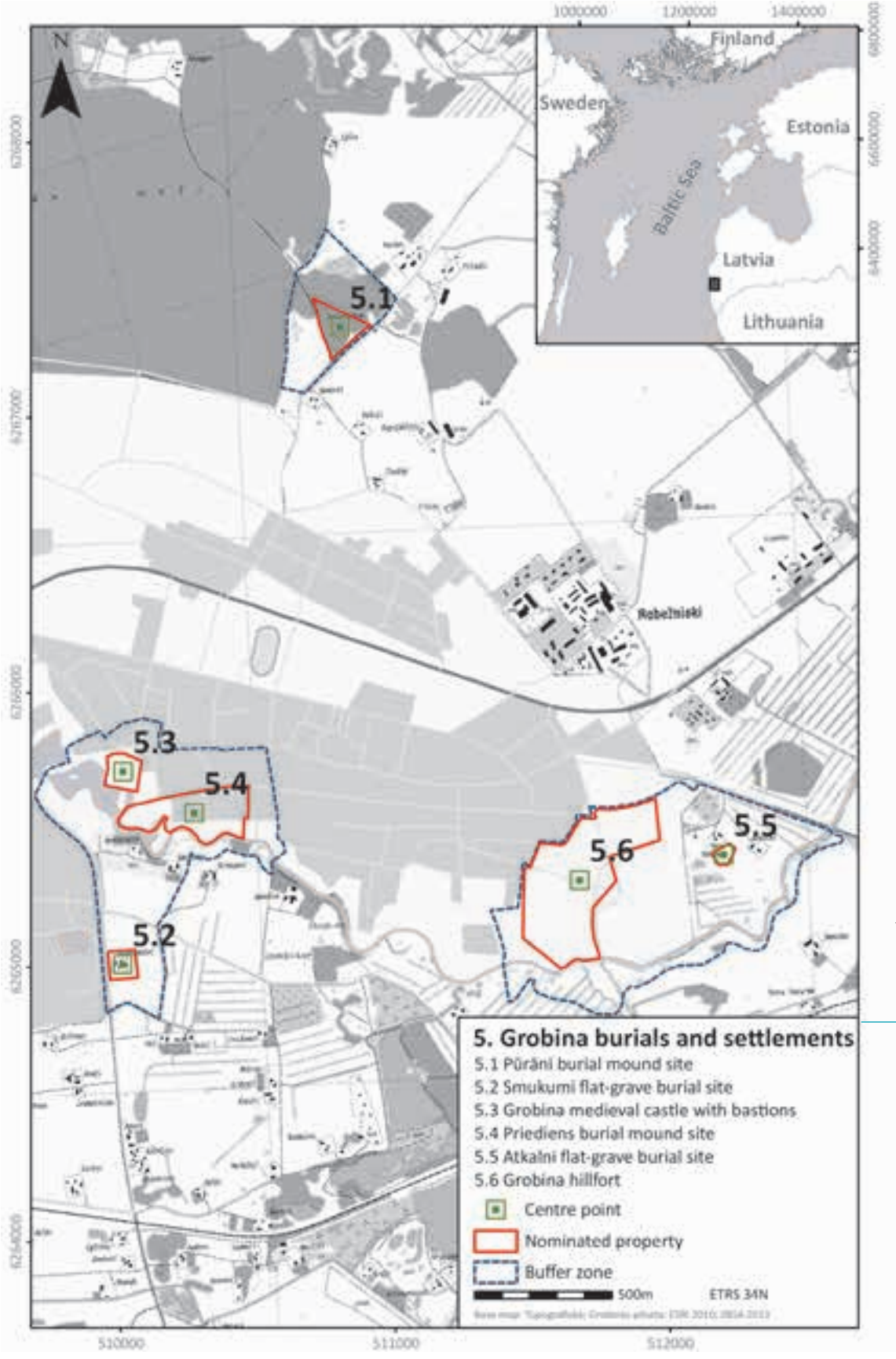
MAP 1.14 *The component part of Hedeby and Danevirke, Germany, sites 4.16–4.18.*



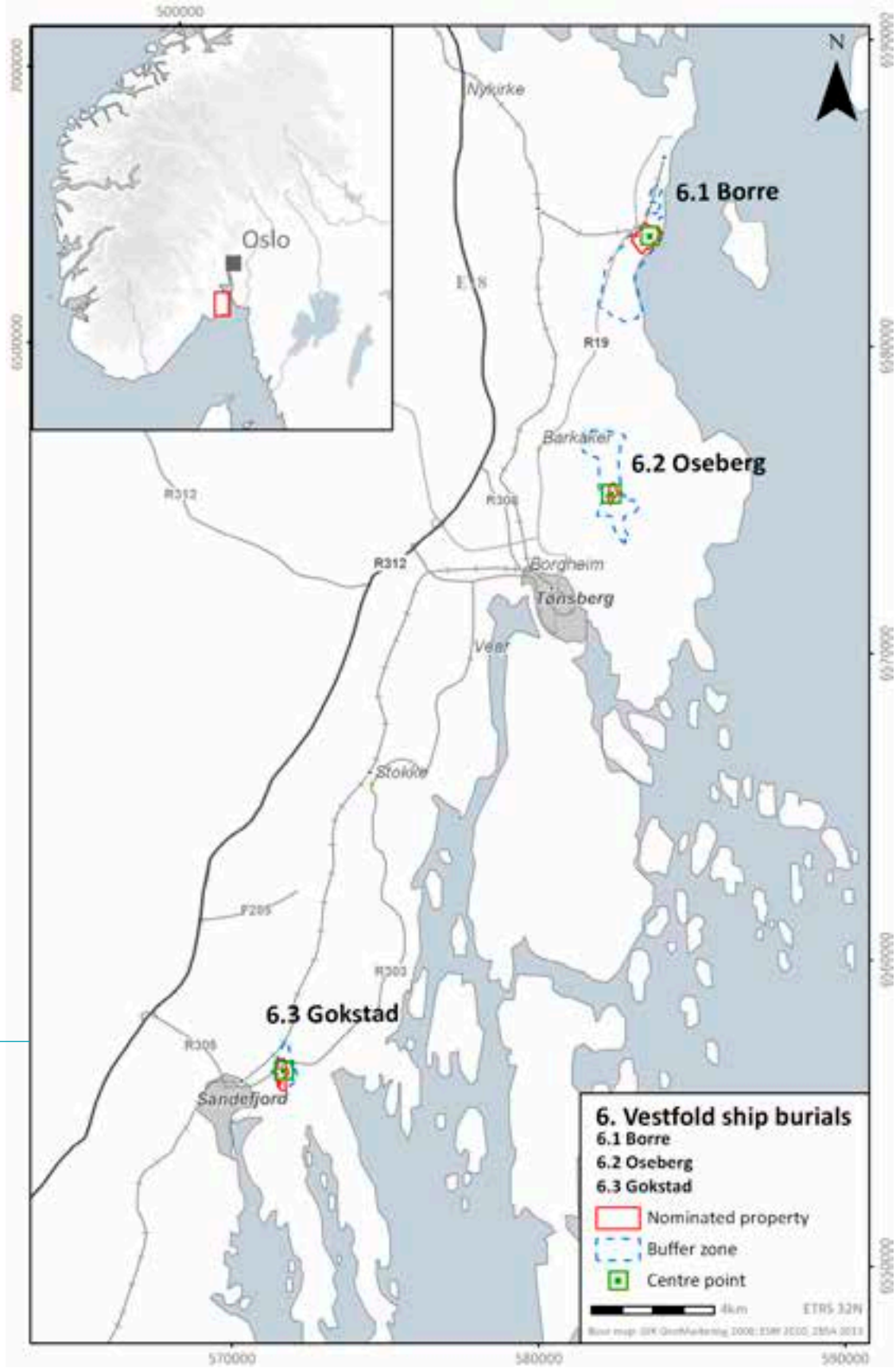
MAP 1.15 *The component part of Hedeby and Danevirke, Germany, site 4.19.*



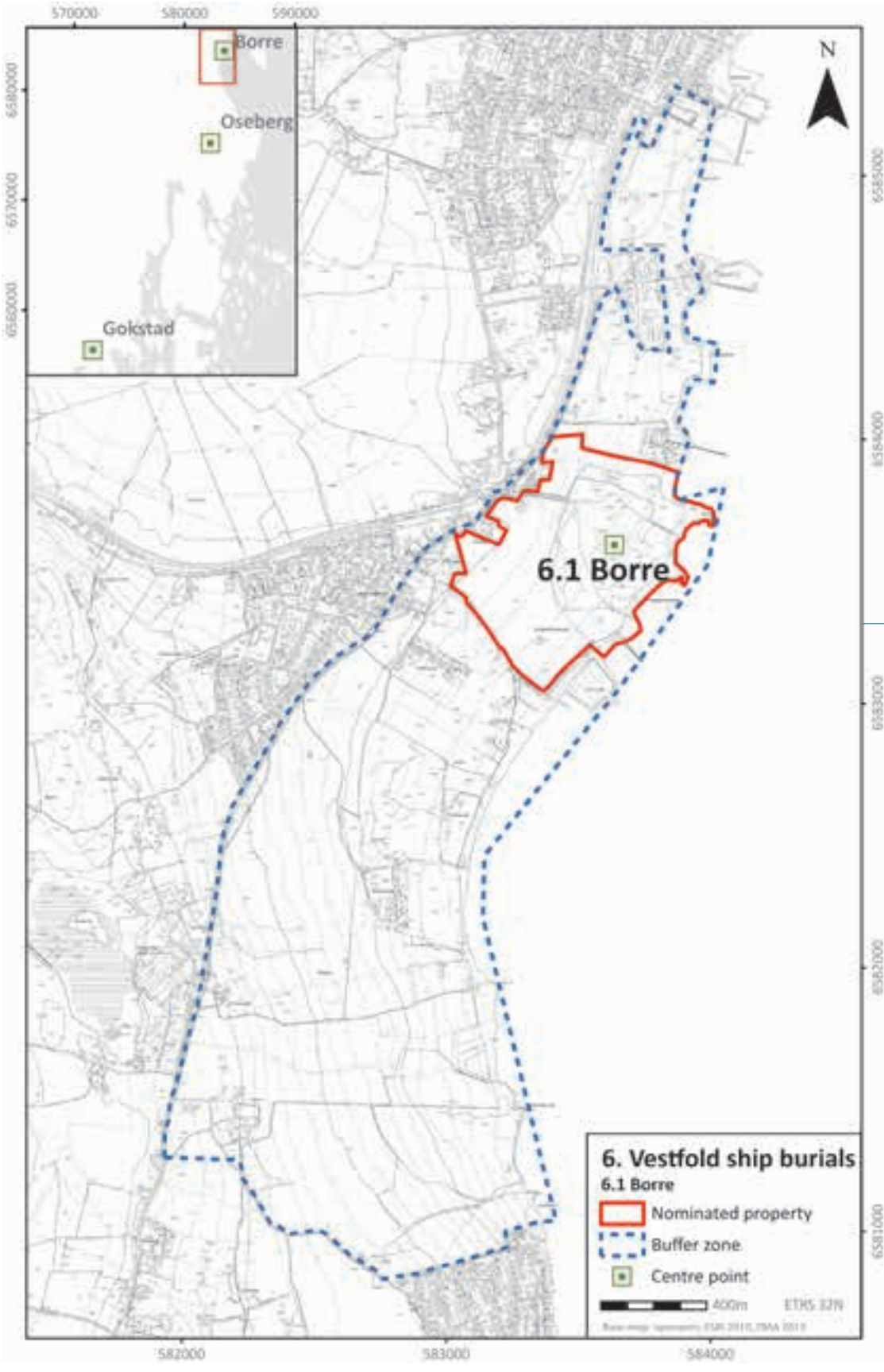
MAP 1.16 *The component part of Hedeby and Danevirke, Germany, sites 4.20–4.22.*



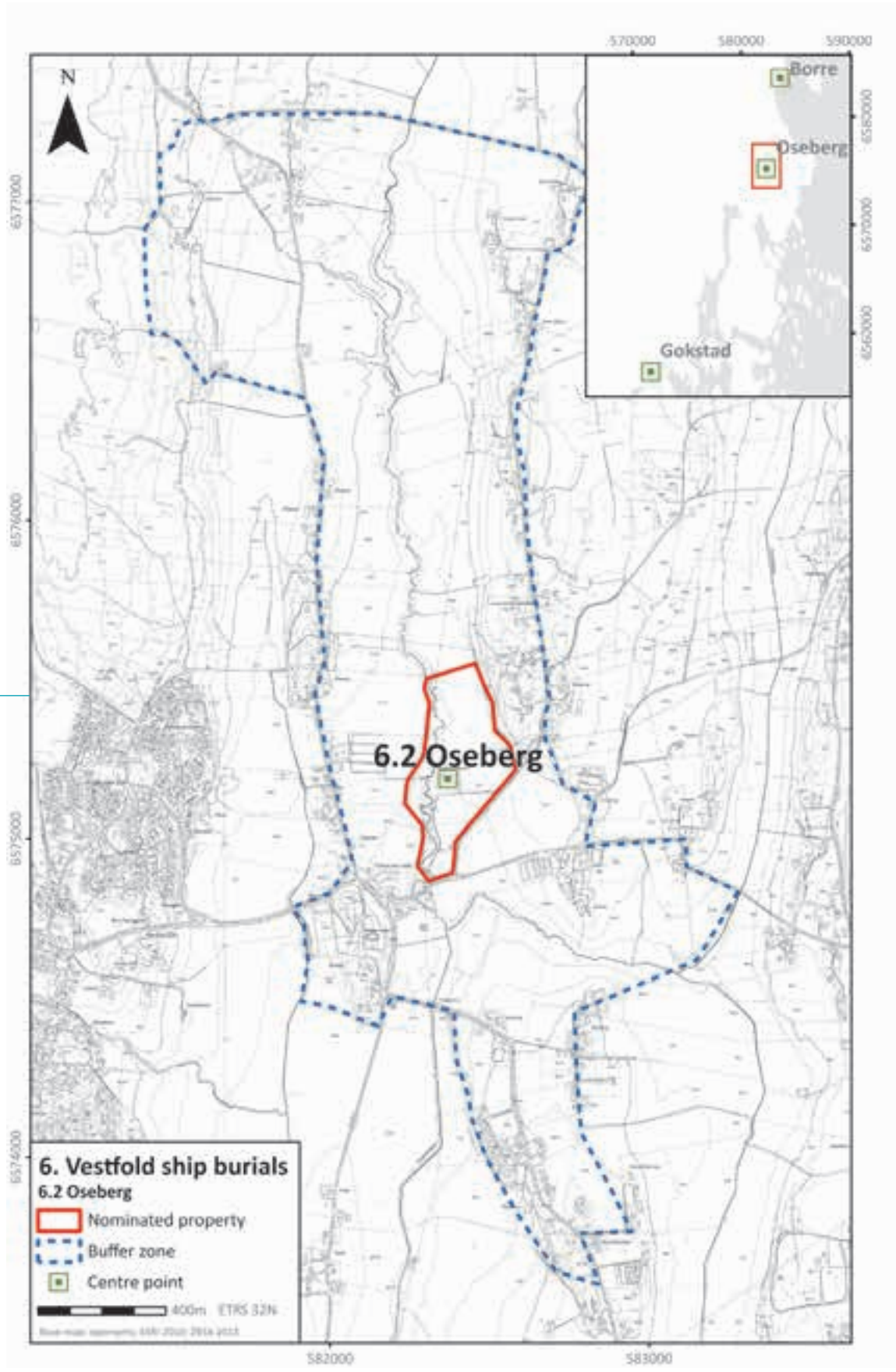
MAP 1.17
The component part of the Grobiņa burials and settlements, Latvia.



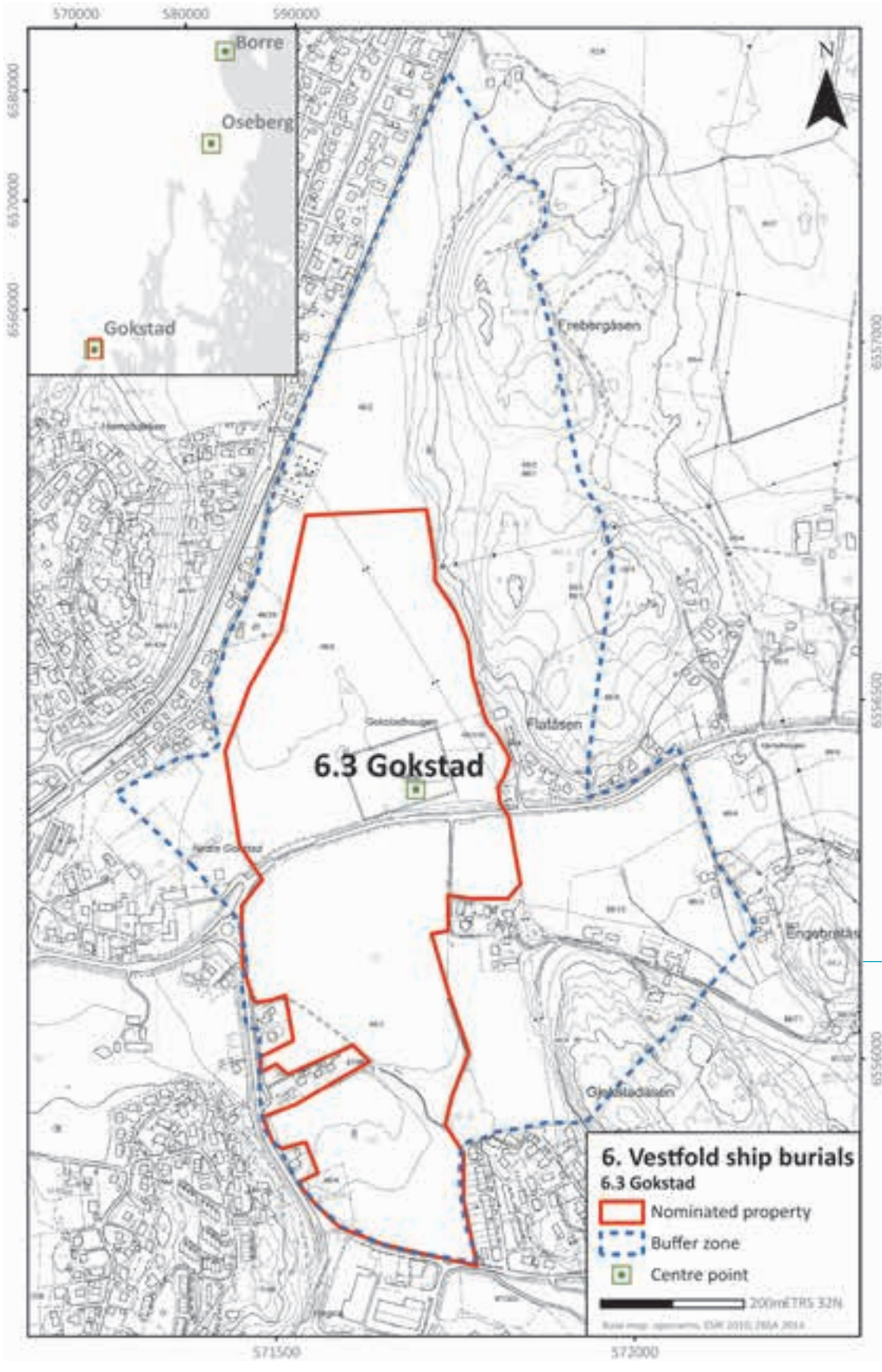
MAP 1.18
The component part of the Vestfold ship burials, Norway. Overview.



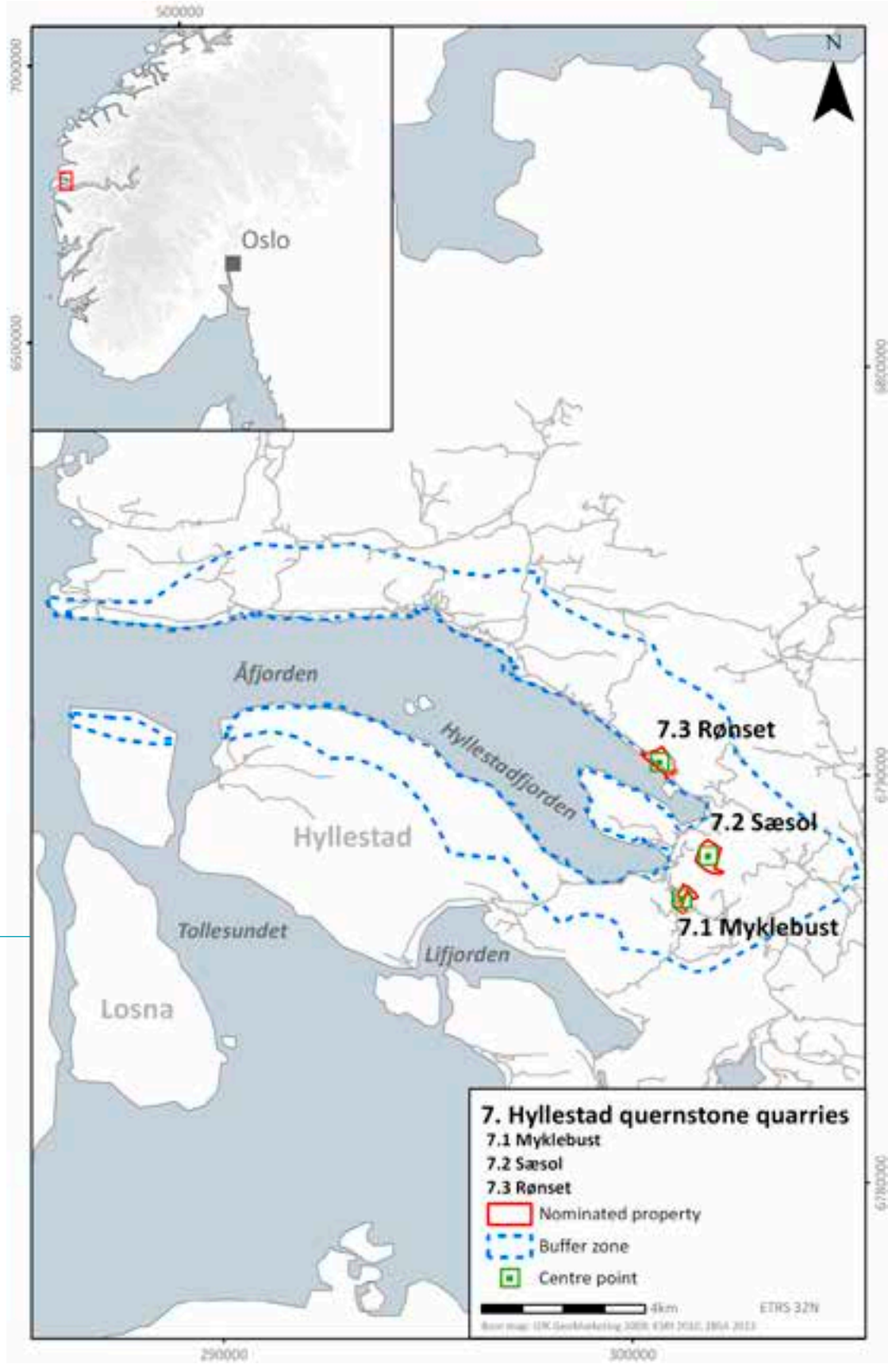
MAP 1.19
The component part of the Vestfold ship burials, Norway – site 6.1 Borre.



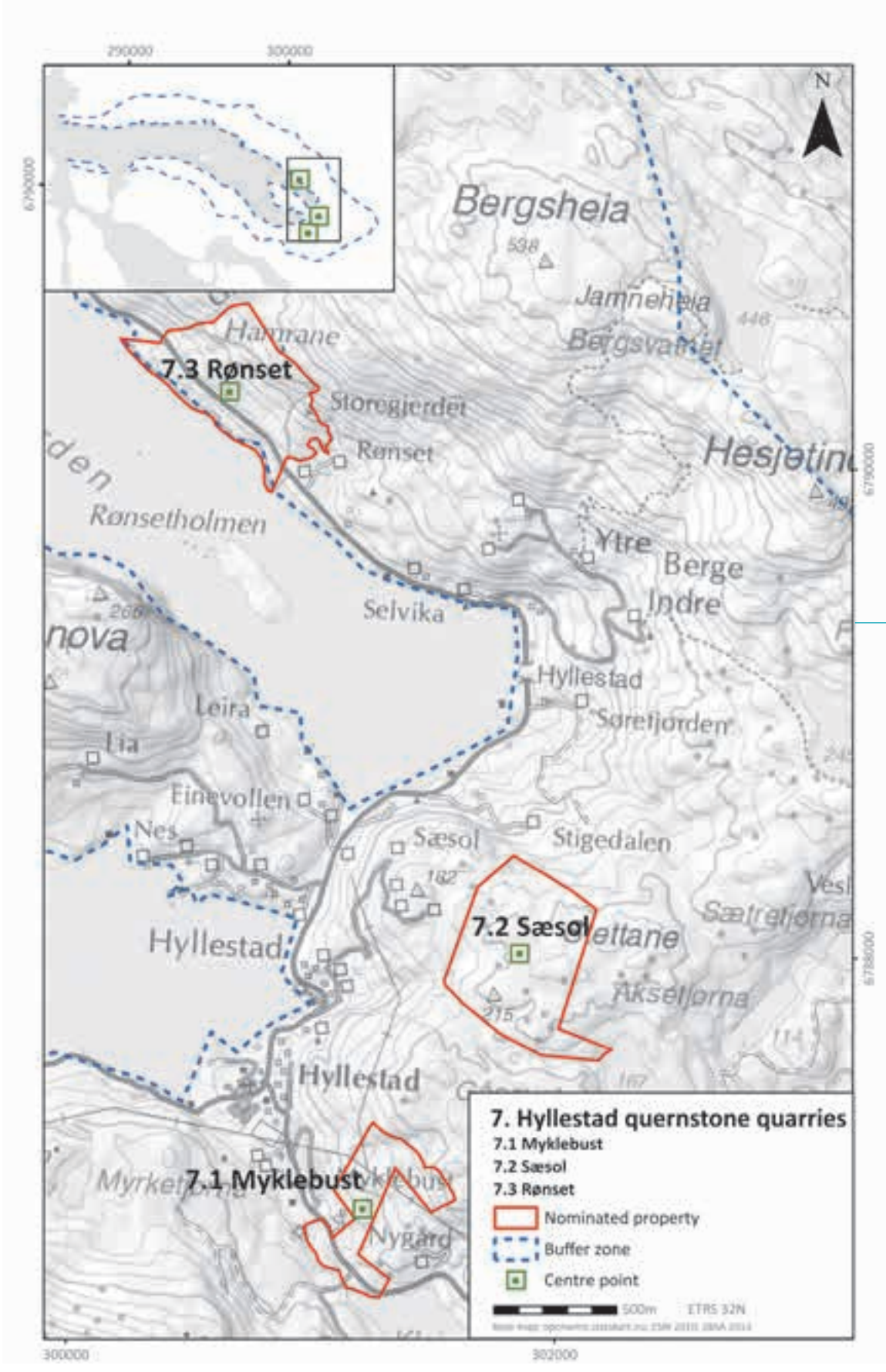
MAP 1.20
The component part of the Vestfold ship burials, Norway – site 6.2 Oseberg.



MAP 1.21
The component part of the Vestfold ship burials, Norway – site 6.3 Gokstad.



MAP 1.22
The component part of the Hyllestad quernstone quarries, Norway. Overview.



MAP 1.23
The component part of the Hyllestad quern-stone quarries, Norway – detailed map.

2 DESCRIPTION OF *VIKING AGE SITES IN NORTHERN EUROPE*

2.A.
DESCRIPTION OF THE SERIAL PROPERTY

The Viking Age in Northern Europe constitutes an outstanding example of the transition from chiefdoms to medieval kingdoms in Northern and Northwestern Europe, as well as demonstrating the importance of seafaring in underpinning important aspects of European culture. This transition took place between the 6th and 11th centuries in the areas on the edge of, or outside, the former Roman Empire and the emerging Holy Roman Empire. The Viking area has preserved outstanding examples of the key physical features demonstrating this transition, such as assembly sites, royal estates and burials, fortifications, trading ports and other evidence of mass production and trade. Components have been selected by the participating States Parties for the light they are able to shed on this transition and all are outstanding examples of their types. Together, these sites exemplify the different but linked aspects of the evolving social and cultural system that we now recognise as the Viking Age.

INTRODUCTION

Since the 19th century, when the Icelandic Sagas[1] were made available in translated and printed editions and the first Viking ships were unearthed, the Viking Age has been an historical period of worldwide fascination. The Viking Age has not only been crucially important in defining the national heritage of Denmark, Iceland, Norway and Sweden, the period has also been closely connected with the development of the scientific discipline of archaeology in Northern Europe. This nomination presents some of the most scientifically important sites from the Viking Age, considered to be a vital part of the history of humanity: The transnational serial property *Viking Age Sites in Northern Europe* consists of seven component parts – **Þingvellir** (1), **Jelling** (2), the **Trelleborg fortresses** (3), **Hedeby and Danevirke** (4), the **Grobiņa burials and settlements** (5), the **Vestfold ship burials** (6) and the **Hyllestad quernstone quarries** (7) – located in the States Parties of Iceland, Denmark, Germany, Latvia and Norway.[2] Thus, the component parts are from what is regarded as the core area of Scandinavian settlement during the Viking Age: Scandinavia and the North Atlantic islands – complemented by a component part from the area of interaction with other cultural groups. All of the component parts are monumental archaeological sites or groups of sites dated to the 8th – 11th century AD, in other words the period most commonly referred to as the "Viking Age" in the geo-cultural region of Northern Europe (see Map 1.1).

Covering a total area of around 521 ha and with component parts consisting of up to 22 individual sites, this transnational serial nomination focuses on a central stage in human history and one of the most significant features of the Viking Age: *The transition from politically unstable chiefdoms to early states*. Representing a long and complicated historical process, the series is made up of component parts considered to cover the diversity of *site types* and to testify to the significant processes required in establishing scientifically that such a transition took place (see below for further details). Collectively, the sites thereby express all the elements of the series' Outstanding Universal Value. Each of the selected components is one of the most important archaeological examples of its functional and architectonic type. Furthermore, the component parts have been chosen because they *reflect functional, social and cultural links over time* and therefore contribute significantly to the overall Outstanding Universal Value of the property.

This chapter is divided into two sections: *Descriptions of the serial property* and *Descriptions of the component parts*, i.e. the series as a whole is described first, followed by more detailed accounts of each of the component parts. This ensures that the Outstanding Universal Value of the series as a whole is presented and the value and role of each component part is made clear.

[1] During the 12th and 13th centuries, historians were at work in Iceland, concentrating on Icelandic history and the histories of the kings of Norway. The most important Sagas are probably the *Landnámabók* (Book of Settlements), a detailed history of the settlement of Iceland, and *Heimskringla* (Orb of the World), a history of the kings of Norway up to 1184. Important manuscripts of the Saga literature are inscribed as a UNESCO Memory of the World as part of the Arnamagnæan Manuscript Collection in Iceland and Denmark.

[2] It should be noted that Jelling and Þingvellir are already inscribed on the World Heritage List as property nos. 697 *Jelling Mounds, Runic Stones and Church* and 1152 *Þingvellir National Park*. The borders of Jelling and Þingvellir, as component parts of this serial nomination, are different to those of the already inscribed properties.

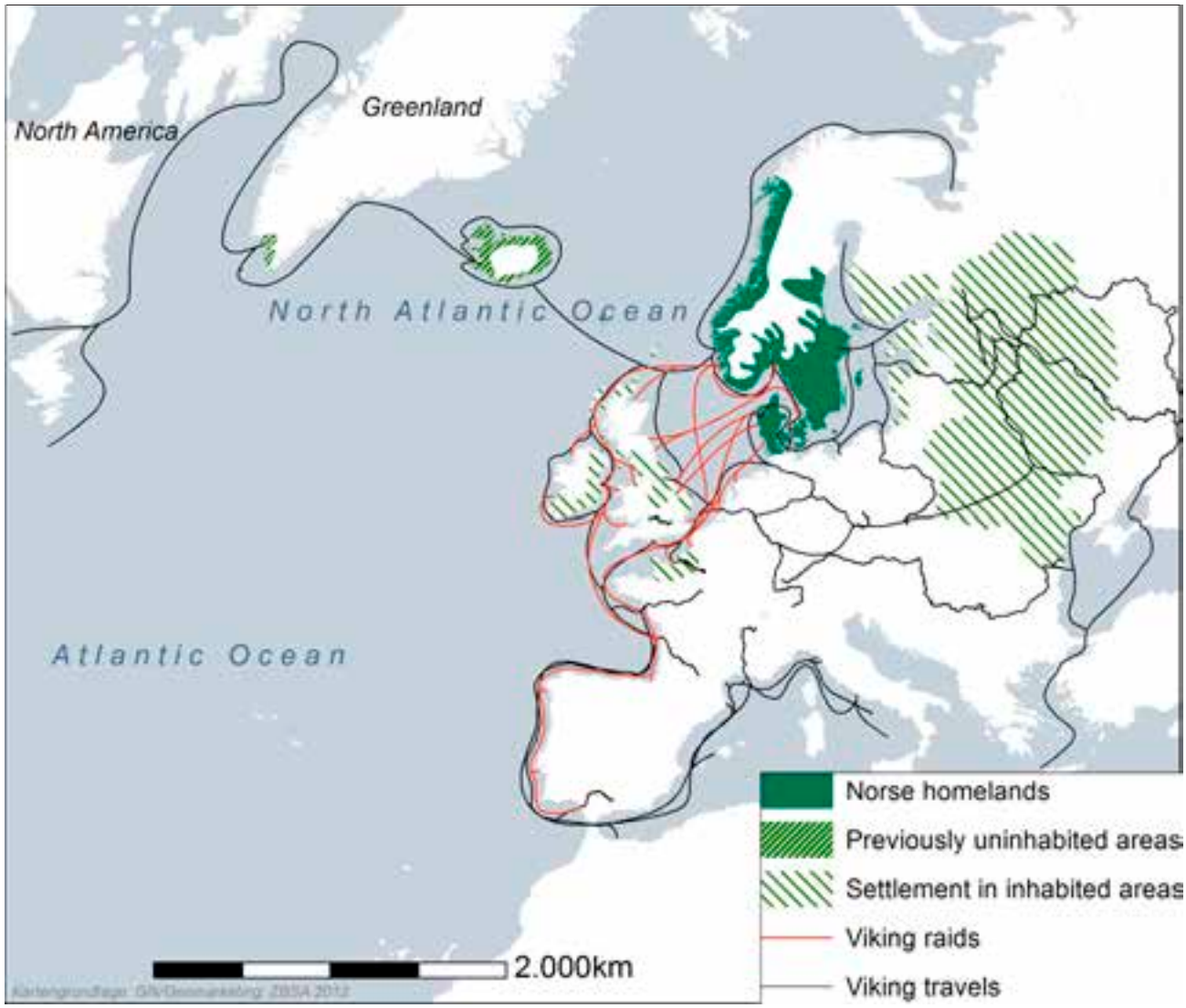


FIGURE 2.1 *Overview of the Vikings' area of interaction. The North European area of interaction includes: The North Atlantic Ocean between modern Canada and Northern Europe and the northern part of the Continent, extending from the British Isles and Northern France in the west via the Baltic Sea to Russia and Belarus in the east. This area was known to the Norse people and is described in the saga literature, written primarily in Iceland in the 12th – 14th century.*

THE CULTURE-HISTORIC SETTING

Derived from the phrase *fara í víking*, the "Viking Age" can both be understood as a chronological and a geographical demarcation. The phrase literally means "to go on an expedition", often interpreted as simply implying "to go on raids", but it was in fact also regularly connected with trading activities. Thus the Viking Age encompasses the period when the peoples of Scandinavia, the Norse – commonly referred to as "Vikings" – left home to *fara í víking*, i.e. the 8th – 11th century AD. The end of the Viking Age is marked by the cessation of this tradition of expansion and the emergence of early Christian states in Scandinavia from the late 10th century onwards. However, the ways in which this transition came about differed at a local level.

Referring to the practice of *fara í víking*, the geographical scope of the Viking Age can be understood as encompassing:

A *core region* of the Scandinavian homelands (present-day Denmark, North Germany, Norway and Sweden) which the Vikings left to go on expeditions, the previously unin-

habited islands in the North Atlantic (Iceland and the Faroe Islands), which were occupied by settlers from Scandinavia and *a larger area of interaction and expansion* where peoples from Scandinavia came into contact and had dealings with pre-existing local populations.

This larger area of interaction stretches from Bulgar (Russia) in the east, to Vinland (Canada) in the west, and from Brattahlið (Greenland) in the north to Byzantium (Turkey) in the south. In particular, it encompasses the British Isles and Northern France, where Scandinavians established stable regimes at times.

At this point it is pertinent to point out a third feature of the phrase *fara í víking*; the practice can be seen as a defining feature of the Vikings' traditional way of life and a cultural practice of which the impact was felt across the wider geo-cultural region of Europe. Indeed, the practice of *fara í víking* can be understood as *an underlying intangible tradition,* the results of which are evident in the form of specific and tangible archaeological sites (cf. criterion (iii) *Preparing World Heritage Nominations* 2011: 36). The Vikings' maritime culture must therefore be seen as a specific characteristic defining the establishment of early Christian states in Northern Europe. Whereas it is the tangible results of the Vikings' expeditions and their cultural encounters with other European peoples that are presented in this series, it is vital to introduce the evidence of the Vikings' own culture and the way in which this can also be traced outside of the core region of Scandinavia.

Consequently, focusing on the transition to Medieval states in the Viking Age, this nomination narrows its geographical scope to sites located within the core region of Scandinavia and on the North Atlantic islands. Examples of sites from the larger area of interaction are discussed in order to demonstrate how interaction influenced societies in the Norse homelands.

DESCRIPTION OF THE KEY CHARACTERISTICS AND VALUES OF THE SERIAL PROPERTY

APPROACHING THE CULTURAL TRADITIONS OF THE VIKINGS

While the Viking ship is now the key symbol for the Viking Age, this ship type remained unknown until the mid 19th century. With the discovery of ships in the Viking burial mounds of the component part of the **Vestfold ship burials** (6), the first well preserved Viking ships were revealed. Since the discovery of the *Borre* (6.1), *Gokstad* (6.2) and *Oseberg* (6.3) ships in Vestfold in the 19th and early 20th century, other Viking ships have been unearthed in the harbour areas of urban settlements such as Roskilde and **Hedeby** (4). It has become increasingly clear that these specialised Viking ships were of vital importance for Viking activities abroad. The fact that entire ships accompanied the wealthy into the afterlife also highlights how crucial the ship was to the elite of Viking Age society (e.g. Roesdahl 1998).

The methodological tools developed to define cultures of the past, such as typological classification systems, have been of crucial importance in Viking Age research and the sites of the component parts of the **Vestfold ship burials** (6) and **Jelling** (2) have given their names to three of the five most important ornamental styles in the Viking Age: The Oseberg style (late 8th to late 9th century AD), the Borre style (mid 9th to mid 10th century AD) and the Jelling style (mid 9th to late 10th century AD)[3] (Solberg 2000: 232-234). These styles are found represented on a number of different objects, of which personal and ornate brooches are among the most common. Brooches were used by men and women to fasten their garments and they often followed the deceased to their graves. The styles and décor of personal objects have therefore been seen as cultural markers, signalling a person's geo-cultural heritage and affiliation. As such, the distribution pattern of items such as oval and trefoil brooches and miniature Thor's[4] hammers provide an excellent means of tracing areas of Viking interaction.

Finally, the presence of runic inscriptions within the core region of the nominated property reveals a common language and similar practices of remembrance. One of the defining features of any cultural group is a shared language. The rune stones, together with contemporary sources, confirm that the Vikings spoke the same tongue, often referred to as Norse. Even if it is possible to distinguish dialects within the core region of Scandinavia, these dialects were similar enough for Norse to be recognised as one language, which was also distinctly different from the Vikings' neighbours on the Continent and in the British Isles (e.g. Roesdahl 1998). During the Viking Age, Norse was written using the runic alphabet, an alphabet with its own characters. While runic inscriptions are found on items made of various raw

[3] The remaining two styles are the Mammen style (late 10th to early 11th century AD) named after items discovered in a grave at Mammen (near Viborg, Denmark)) and the Ringerike (Norway) style (late 10th to mid 11th century AD).

[4] The god of thunder in Norse mythology

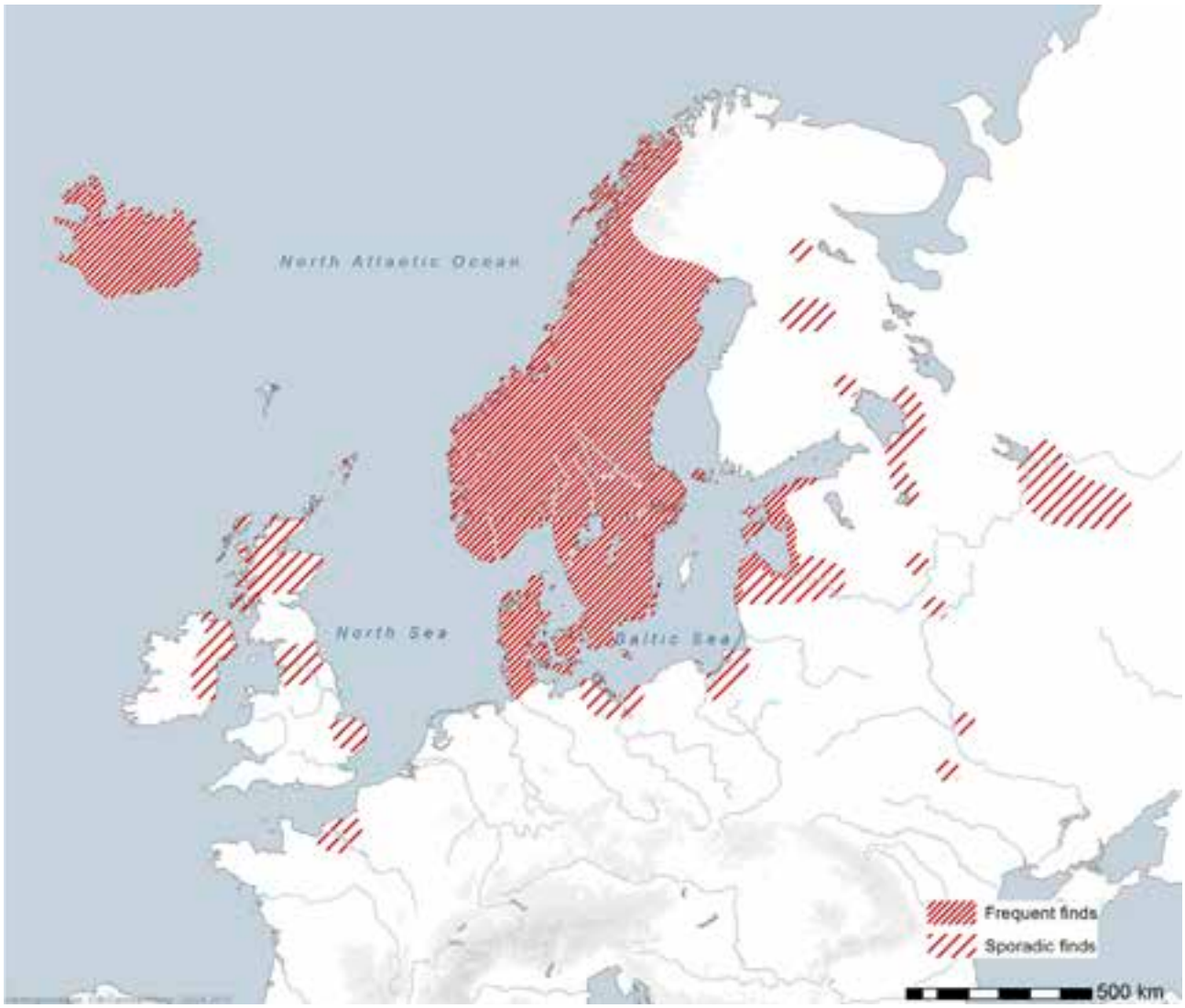


FIGURE 2.2 *Distribution pattern for oval brooches in the Oseberg, Borre and Jelling style.*

materials, they were all used as a means of conveying relatively short messages. However, in the later stages of the Viking Age a particular type of rune stone was erected in Scandinavia, which bore a runic text commemorating the deceased. These were sited at crossing places in the landscape, such as by roads and bridges and, consequently, rune stones have also been seen as markers helping the deceased on their journeys to the afterlife.

The material culture discovered at the sites of the component parts thereby clearly supports the notion of a closely interconnected Viking Age Northern Europe. This is further underlined by contemporary or near-contemporary written/historical sources, which refer to several of the component parts. In the famous account of Ottar´s[5] late 9th century journey from his home in Northern Norway to King Alfred of Wessex in England, Ottar passes Vestfold and the *port* of *Sciringes healh*, located only kilometres away from the **Vestfold ship burials** (6) (Skre 2007b: 150). Five days later, having travelled along the coast of Denmark, he arrives in **Hedeby** (4).

[5] Also spelled Oththar

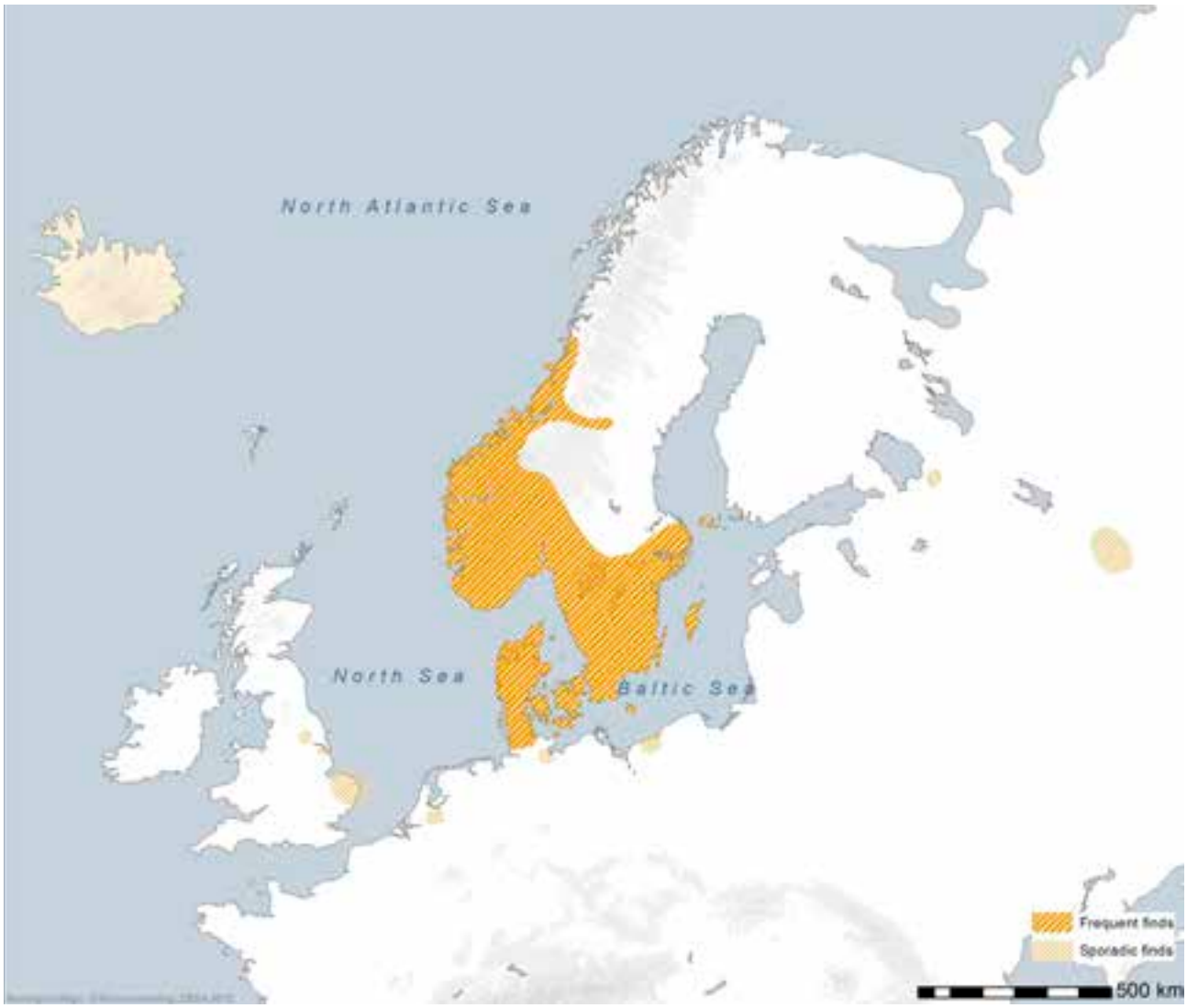


FIGURE 2.3 *Trefoil brooches decorated in the Oseberg, Borre and Jelling styles.*

Furthermore, there are several written sources which describe the first Christian missions to Viking settlements. An early example is *Vita Anscarii*, written by Rimbert (AD 830-888), Archbishop of Bremen. Rimbert gives an account of his predecessor Ansgar's life and journeys in the early 9th century AD. Among the events he describes is Ansgar´s mission to the urban settlement of Birka in Sweden. Ansgar

FIGURE 2.4 *Trefoil brooch found in Eastern Iceland. The center triangle is in the Borre style and the three tongues in the Jelling style.* ©*Þjóðminjasafn Íslands/National Museum of Iceland.*

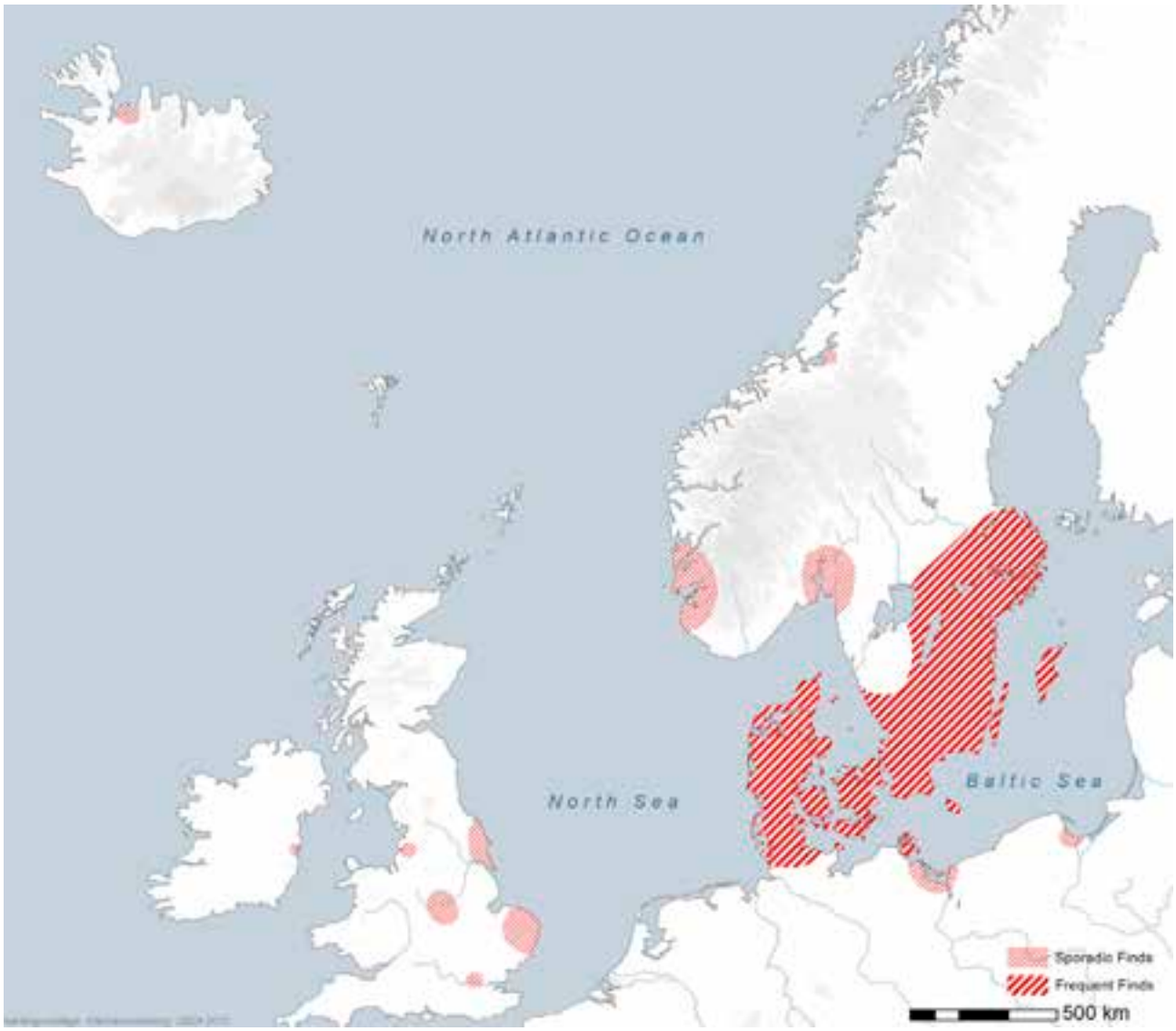


FIGURE 2.5 *Distribution pattern for Thor´s hammers.*

also spent time in Denmark where his relations with the local kings were at times rather more strained. One of these was Harald Klak, who was a Danish king for two periods, and in his first period he was mentioned in the *Frankish Annals* of AD 813. Harald Klak and his brother Reginfred set out on an expedition to Vestfold, the extreme northwest of the Danish kingdom, to settle unrest among the local leaders and people (Sawyer 1995: 6).

The written sources thereby give further insights into the interconnectedness of the geo-cultural region of Northern Europe. Furthermore, they highlight how the sea must be perceived not as a barrier, but as a force uniting the region and a means of transport by which people, goods and ideas were distributed. Through the component parts it is possible to gain understanding of how the centuries' long Viking cultural tradition of *fara í víking* was formed by the waterways and sea routes of Northern Europe.

Moving from a general description of the central aspects of the Viking way of life, the functional links between the component parts are laid out in the following section. In brief, the component parts represent a collection of the types of archaeological sites identified as being definitive for one significant stage in human history, in this case the transition from pagan chiefdoms to early Christian states

(cf. criterion (iv) in *Preparing World Heritage Nominations* 2011: 37). Consequently, the following section describes the types of archaeological sites associated with this transition, together with a description of significant processes testifying to this transition in the archaeological record.

FROM CHIEFDOMS TO STATES: SOURCES AND ARCHAEOLOGICAL TYPOLOGIES

In the context of Viking Age Scandinavia, the transition from chiefdoms to the early states of the European Middle Ages was first described in contemporary or near-contemporary written sources such as rune stones and the Icelandic Sagas. The large rune stone at **Jelling** (2), dated to around AD 965, proclaims King Harald's conversion of the Danes to Christianity. This statement can be seen as the earliest and most eminent source relating to the establishment of a Christian kingdom in Northern Europe and it therefore illustrates a significant step towards integration into Medieval European civilisation. Some 200 years later, the sagas constitute a collection of epic poems and historical accounts mostly put down in writing in Iceland around 1200-1400. Many of the events described in the sagas did, however, take place in the preceding centuries and the accounts had been passed down orally for generations. The historical accuracy of the sagas has therefore been disputed and, as historical sources, they must be used with caution (e.g. Roesdahl 1998). Nonetheless, the sagas are the sources that gave 19th century historians their first glimpses into this transitional period of the Scandinavian past.

Íslendingabók (The Book of Icelanders) was written by Ari Þorgilsson (1067-1148). It originally existed in two versions but only the later of the two still exists. It recounts the major events in Icelandic history until the 12th century and, due to the quality of the work, it is considered to be the most reliable extant source on early Icelandic history. In the prologue, the author states that whatever might be wrong in the account must be corrected to "that which can be proven to be most true". The earlier version of the book, which has not survived, included information on the Norwegian kings and was used as a reference by later writers of the "Kings' Sagas", such as Snorri Sturluson. Íslendingabók tells how the island was first settled in the days of the first king to rule all of Norway, Harald Fairhair, of the decision to establish the Althing at Þingvellir (1) and of the Christianisation of Iceland in AD 1000.

Landnáma (The Book of Settlements) is also believed to have been written by Ari Þorgilsson and, together with Íslendingabók, the oldest document about the settlement of Iceland. The original manuscript of *Landnáma* has been lost but replicas from as early as the 13th century still exist. *Landnáma* tells mostly of the Norwegian settlers in Iceland, where they came from and where they settled.

One of the best-known and central written accounts from the period is Snorri Sturluson's *Heimskringla*. *Heimskringla* was written in the 1220s and is a collection of so-called "Kings' Sagas" which tells the stories of the reigns of the Viking kings. In the third saga of *Heimskringla,* the Saga of Harald Fairhair (Haraldur Hárfagri), Snorri describes Harald Fairhair's conquest of Norway in the decades around AD 900. The remaining sagas in *Heimskringla* explain how the kings ruled and fought battles until the last in his sequence of sagas ends in 1177. Through the sagas it is possible to gain an impression of how deeply embedded the warrior ideology was with respect to the processes involved in establishing a sense of statehood. The sagas provide detailed accounts of how the kings used booty acquired in war and raids as a means to retain power by providing the items as gifts to extend and maintain their inter-regional networks of allies. The written sources therefore highlight how the kings were able to convert their profits from raids into property by making alliances with settled communities at home and abroad. Furthermore, the work of the Danish clerk, author and historian Saxo Grammaticus *Gesta Danorum*, written between 1170 and 1180, is of particular interest to this nomination as it explains how the Danish Viking kings became allies of the Church as a means of ensuring more stable states. Accordingly, based on the written sources, a tradition for perceiving the Viking Age as a period of transition from chiefdoms to Medieval states is well established.

A similar interest in this historical transition has led to intense research and debate within both anthropology and archaeology. In addition to earlier historical sources, anthropological and archaeological research over the last 150 years has been focused on developing models for the development of Medieval societies in Northern Europe. Collectively, archaeological and anthropological research has enabled a series of key processual elements of the transition to be identified. However, these processual elements also manifest themselves materially:

These processes, and these types of new material structures, are manifested to a lesser or greater extent in the archaeological record. As a means of understanding the transition that took place during the Viking Age of

TABLE 2.1 *The material manifestations of the transition from chiefdoms to early states.*

PROCESS	MATERIAL CONSEQUENCE
Settlement in new territories and taking over land by force or joining in peacefully with existing communities	The emergence of Norse settlements outside Scandinavia
Interaction with indigenous populations in Europe which influenced and transformed the social practice of Viking Age society	The emergence of settlements showing the co-existence of Norse and local communities
Growth of trade in commodities and exotica over long distances to an unprecedented scale	The emergence of urban trade settlements, so-called emporia.
Production of exotica and bulk goods on a large scale for markets	The emergence of new types of mass-production sites where bulk goods were produced for off-site consumption, combined with portable craft production for a non-commissioned market
Movement towards urban trading centres as nodal points for the exchange of goods and ideas	The emergence of urban trading centres
Creation of memorial landscapes to claim ownership of land, with buried ships as a widespread feature in emphasising the enormous significance of seafaring	The emergence of ship burials in monumental barrows
Movement to systems of governance and law that were largely based on parliamentary structures. This played a fundamental role in creating social cohesion within communities as well as a sense of identity across larger distances	The emergence of central assembly sites, so-called things.
Conversion from pagan religion to Christianity, creating a platform for new political alliances and developments and promoting social redefinition	The emergence of Christian monuments like rune stones, bearing Christian symbols and inscriptions, and churches
Employment of large amounts of human resources and materials in fortifications that reflect the scope and power of the emerging military organisation and authorities of the time	The construction and extension of large fortification structures at strategically important locations
Development of dynastic Christian kingships in line with the common European pattern and, in the case of Iceland, parliamentary rule	The emergence of seats and sites of governance

Northern Europe, the following types of sites need to be identifiable: *urban settlement sites, mass-production sites, fortification structures, assembly sites, burial sites, Christian rune stones or churches and seats of governance*. In addition, the settlement sites of Viking Age Norse outside Scandinavia serve as links to the regions where influences for this transition originated. Accordingly, the archaeological heritage combined in this serial nomination illustrates the transition to Medieval states in Northern Europe, following a series of processes and with corresponding types of sites:

Overseas settlement

Viking voyages are not only synonymous with the entire Viking Age, they can also be seen as the basis for the transition from tribal societies to Medieval states in Northern Europe, as they brought the Norse peoples into much closer contact with Christian societies in Europe, notably the Frankish, Ottonian and Byzantine Empires. Whether as colonisers, traders or warriors, Norse people of the Viking Age reached almost every part of the world known to Europeans at the time. They settled in new territories, conquered land by force or joined in peacefully with existing communities. From the Baltic Sea, they travelled up the rivers of the Russian Plain and via the Black Sea and the Caspian Sea they reached Asia and the Caliphate. Sailing northwest from Scandinavia, they arrived in the British Isles and were the first Europeans to set foot on the Faeroe Islands, Iceland, Greenland and North America, and they then settled these territories. In Western and Eastern Europe, they always maintained a close interaction with the local population. Overseas settlement by the Norse can generally be divided into four types: settlement in uninhabited lands (e.g. Iceland), the conquest of land (e.g. British Isles), the establishment of an elite (e.g. Staraja Ladoga) and trading stations and centres (e.g. **Grobiņa** (5)). The sites at **Grobiņa** (5) in Latvia are extraordinary, representing early examples of Norse overseas settlement in an already populated area when Scandinavian expansion was in its initial stages. The Norse settlements and burials here provide evidence of Norse traders and craftsmen who established permanent and durable settlements within indigenous communities. On the other hand, the central thing in **Þingvellir** (1) must be seen as the most prominent testimony relating to the establishment of a Norse society on the islands of the North Atlantic.

Cross-cultural communication

Close interaction, especially with the Christian Empires of Europe, was therefore a prerequisite for the introduction of new ideas relating to economy, governance and religion, which transformed societies in Northern Europe. Consequently, settlements ranging from Ireland in the west to the Caspian Sea in the east demonstrate how Norse customs and burial traditions mixed and merged with local trends. Contemporary written sources – accounts of Arab travellers in Byzantian, Russian, English, Frankish and German annals and the Icelandic sagas – speak of widespread cultural contacts. Close links were forged through trade and political alliances and developed gradually over time, both in the west, with settlements in populated areas of England and Ireland, and in the east, with a large number of settlements along the Russian rivers. Towards the end of the Viking Age, these contacts intensified due to the Christianisation of Northern Europe, when the region's emerging kingdoms became integrated into the Medieval Christian civilisation of Europe. People are shaped by their social relations. In the settlements of the Viking Age, people of different cultural backgrounds met through trade, social mobility and often slavery, and different linguistic groups encountered each other. Contacts with other European societies become especially visible in sites of early cross-cultural settlement like **Grobiņa** (5) and **Hedeby** (4), as emerging trade centres on the border with the Frankish Empire and Slav and Saxon tribes.

Long-distance trade

In addition to overseas expeditions and the eponymous raids, Viking travels were largely associated with trade. As a consequence, for more than 300 years, the Norse made use of their sailing expertise and their ocean-going vessels to dominate the long-distance trading routes of Northern Europe, extending as far as Iceland and North America to the north and west and through Russia to the Black Sea and the Caspian Sea to the east. Asia, Northern Europe and the North Atlantic islands as far as Greenland were connected by traders. Locally available raw materials, such as soapstone, iron ore, fur and amber, were in great demand in Western Europe and were transported over vast distances. Numerous craft products also constituted part of the trading goods. The various products had to be collected and stocked, sometimes in remote outlying districts, and then taken to trading ports – the market, where they were distributed further. It was through trade and commerce that many significant innovations were introduced to the Nordic Region. The trading settlement of **Hedeby** (4) in the southern part of the Jutland Peninsula bears exceptionally well-preserved testimony to the wide-ranging trade network established by the Norse of the Viking Age.

It was one of the most important merchant towns of Northern Europe, so-called Emporia, from the 9th to the 11th century AD. Long-distance trade on a growing scale thus fostered the change in the economic basis of Viking Age societies, from redistribution to more a specialist economy based on marketplaces and complex trading networks.

Large-scale production

The growth of trade and markets in the Viking Age cannot be detached from intensification in the use of various resources and a change from their small-scale to large-scale exploitation. This development is visible in the archaeological record throughout Scandinavia. In the pre-Viking period, specialised production was focused on valuable gifts for the elite and local production was, to a large degree, concentrated on subsistence products and essential items. In the Viking Age, larger quantities of goods, often of uniform product types, were produced for a market that constituted a considerable proportion of society. The character of the various forms of production, as well as the scale of distribution of the commodities, indicates intense and well-organised activities which demanded wider organisations and contact networks. The **Hyllestad quernstone quarries** (7) are exceptional examples of the large-scale production which began in Viking Age Scandinavia. In the quarries, resources and raw materials were exploited on a near industrial scale, and almost 400 individual quarry sites are known. As a consequence of the advent of bulk production and more stable trading routes, non-local items, often produced far from their final resting place, are frequently encountered during archaeological excavations. The presence of **Hyllestad** quernstones in the archaeological record of **Hedeby** (4) clearly indicates the emergence of a more specialised economy (Baug 2013). However, other bulk products, for example the "human commodity", i.e. slaves, are more difficult to trace. Nevertheless, the presence of shackles associated with slavery, in for example the archaeological record of **Hedeby** (4), has made it possible to testify to the existence of this form of goods. Raw materials were sent in bulk directly to the recipients or trading centres such as **Hedeby** (4) to be worked into craft products which were then distributed further along the trade networks. In **Hedeby** (4), there are numerous workshops within the settlement where raw materials were refined. Finds testify to the existence of a broad spectrum of highly-specialised craftsmen, producing goods that were some of the most skilfully produced of the Viking Age.

Urban development

Closely connected with trade and production, emerging urban centres initiated and fostered the development of Medieval towns in Scandinavia and became a catalyst for the transition to Medieval societies and states in the Viking Age. Consequently, some modern towns, like Ribe and Aarhus in Denmark and Dublin in Ireland, are rooted in such Viking Age trading centres, so-called emporia. In contrast, settlement in areas occupied by Viking Age Norse was predominantly rural, consisting of single farmsteads or small villages containing several such farmsteads. Local nobility can be linked with exceptionally rich farmsteads, which often also served as centres for trade and crafts, as in *Borre* (6.1). Large permanent trading centres then developed from often temporary marketplaces which had been established at strategically well-situated natural harbours. In trading centres like **Hedeby** (4), a king had to guarantee the peace in order for permanent trading networks of producers and consumers to be formed. Furthermore, the establishment of trading networks requires a series of sites which are capable of handling the import and export of large volumes of goods. Archaeologically, this type of site can be differentiated from its immediate surroundings, being evident as an urban settlement where traces of production and consumption are visible. Protected by laws and often permanent enclosures, urban settlements were central to the emergence of early states. One of the most readily visible traces of a link between kings and urban settlements is the minting of coins. Acceptance of a monetary system requires a general belief in the king's abilities to guarantee coinage of a stable metal content, as well as being a sign of more market-oriented trade increasingly based on the mass production of goods. Thus, the documented early urban characteristics of emporia include central market functions, minting of coins, small-scale parcelling of land and permanent settlement, as well as fortification. All of these are reflected in the outstanding example of **Hedeby** (4), situated at the end of the Schlei fjord in present-day Germany.

Memorial landscapes

The change in the political structure, together with the fundamental importance of the ship for the transition of Viking Age societies, is also reflected in changes in traditional local practices. The tradition of building monumental burial mounds to commemorate ancestors and to prove legitimacy of land ownership and power was not new but attained a new quality during the Viking Age. At that time, various forms of monuments created landscapes which communicated power over land by refer-

ence to the past. However, ships or boats, in particular, became widespread features of such monumental burials, emphasising the enormous significance of seafaring. Graves represent some of the most visible and best preserved monuments from the Viking Age. They form part of a religious and memorial landscape which has experienced changing facets of meaning right up to the present time. In the Viking Age, ship or boat burials in barrows are found across large areas of the Norse sphere of influence, demonstrating that the ship was not only a means of transport but a widespread symbol of power. The ships buried in the mounds symbolise the journey between life and death, as well as reflecting the social world of the time and the supernatural forces residing beneath the soil. These large and visually impressive monumental mounds represent traces of enduring burial traditions and can be perceived as permanent markers of power. The **Vestfold ship burials** (6) at *Oseberg* (6.2) and *Gokstad* (6.3) are outstanding examples of these monumental barrows; ship burials in an open landscape. Furthermore, the *Borre* (6.1) site comprises a burial ground containing nine large and many smaller burial mounds and cairns as well as remains of a harbour and hall buildings. The **Vestfold ship burials** (6) are accordingly also connected with the seat of petty kings. Also in **Hedeby** (4) a royal burial took place within a mound-covered ship, which has been excavated in the early 20th century. The ship as recurring symbol of power can also be seen at **Jelling** (2), where the first monument at the site was a huge stone setting in the form of a ship. Both the **Vestfold ship burials** (6) and the **Jelling** mounds (2) are sites with especially prominent mounds which were associated with royalty. However, the mounds in **Jelling** were found to be empty and it is mainly in their form and function that they show clear resemblance to contemporary barrows. The memorial sites in this nomination continued to play a significant ideological role in the emerging kingdoms. Thus, at both **Jelling** (2) and at *Borre* (6.1), early churches were built on the same sites as the Viking Age burial mounds, underlining continuity of the noble inhabitants and the symbolic meaning of the landscape. But these traditional burial customs gradually disappeared during and after the introduction of Christian funerary practices. By the end of the Viking Age, new ways of placing symbols of power in the landscape had been introduced in the form of rune stones. Rune stones were widely used as a memorial to both dead and living individuals or as markers for the ownership of land, especially in Sweden. They frequently attest to the Christianisation of the region and rank among the earliest written expressions in Northern Europe. Five rune stones were discovered around **Hedeby** (4), which the royalty of **Jelling** erected to commemorate followers held in high esteem. As the most prominent examples, the royal rune stones of **Jelling** (2) mark the centre of the kingdom of Harald Bluetooth who, in the runic inscription, claims dominance over the whole of Denmark and Norway. Consequently, they also illustrate the central role which the conversion to the Christian faith played in the development of Medieval states in Northern Europe.

Parliamentary formation

While the cultural practice of constructing memorial landscapes reflects, on the one hand, how the people of the Viking Age still associated territorial markers and symbols of power with personal ancestry, on the other hand, political institutions also developed which were at the heart of the transition to Medieval societies in Northern Europe. Assemblies of free men were a significant arrangement that already prevailed among other Germanic peoples in Northern Europe. During the Viking Age, societies further developed systems of governance and law which were largely based on these parliamentary structures focused on assembly sites, so-called things. At the assemblies, laws were recited and changed, judgments passed and issues between the free men were settled. Parliamentary sites and their assemblies played a fundamental role in creating social cohesion within communities as well as a sense of identity across greater distances, for example between newly-settled areas and homelands. The Norse societies of the Viking Age were governed, on the one hand, by an assembly of free and armed men, the thing, and, on the other, by a leader generally referred to as a king. Laws were adopted, judgements passed and other issues in society settled at the things. The king had to be accepted and elected by the thing and had to obtain the necessary support and mandate for his rule from the freemen. When the Norse settlers arrived in new areas, they brought with them their customs and legal systems and often established local things. In Iceland, an assembly for the entire country – the Althing – was established around AD 930. It was located on the field of **Þingvellir** (1) and is regarded as the most outstanding of all the known thing sites. The establishment of the General Assembly marked the beginning of an organised society generally referred to as the Icelandic Commonwealth. The commonwealth, based on the meeting at **Þingvellir** (1), also marks the

specific path taken by the transition to Medieval societies in Iceland. The Althing remained the sole political institution, whereas in Scandinavia kingdoms developed.

Religious practices and beliefs

It was also in **Þingvellir** (1), at an assembly of the Althing, that the Icelandic adoption of Christianity was decided upon in around AD 1000. This was only shortly after King Harald Bluetooth of **Jelling** (2) had adopted Christianity in around AD 965. These events illustrate the enormous importance of the new Christian faith for the stabilisation of power. The conversion created a platform for new political alliances and networks of power across the Continent and promoted social redefinition. Cosmology, personal identities and group formation changed fundamentally. The conversion was especially crucial to the acceptance of Norse societies and kings by the Christian rulers of Western Europe. Consequently, the change of religion marked an important step towards integration into medieval Christian Europe. However, by the end of the Viking Age the pagan Norse societies had adopted Christianity as a consequence of decisions made by their rulers rather than missionary conversion. The kings and the aristocracy appear to have been instrumental in adoption of the new religion and associated Continental ideas. This is underlined by a series of largely ineffective missionary attempts by delegates of the Archbishopric of Hamburg-Bremen during the 9th century, which targeted the proto-towns of **Hedeby** (4), Birka and Ribe. Only through the conversion of Harald Bluetooth were the southern parts of Scandinavia eventually incorporated into Western European Christendom. His conversion initiated a more successful period of evangelisation in Scandinavia and by the end of the Viking Age the majority of royal houses had adopted Christianity. The process of religious change is clearly recognisable at **Jelling** (2) in the form of Christian symbolism, Christian rhetoric and, over time, also Christian architecture. Marking the beginning of the conversion of the Scandinavian people to Christianity, the **Jelling** (2) mounds, rune stones and church are outstanding manifestations of this transition from pagan to Christian. The two mounds and one of the rune stones stand in the pagan tradition, while the other stone commemorates the official royal acceptance of Christianity. The large rune stone, adorned with unique Christian iconography, is dated to around AD 965 and proclaims King Harald's conversion of the Danes to Christianity. In addition to the archaeological complex of **Jelling** (2), the **Vestfold ship burials** (6), **Hedeby** (4) and the burials at **Grobiņa** (5) are key sites for the understanding of Viking Age religious behaviour and traditional ritual practices. All present valuable information about rituals and burial customs in a time of change.

Engineering and strategic use of the landscape

By the end of the Viking Age, the adoption of Christianity by the ruling elite was an essential means to the maintenance of power. However, large fortifications were also employed in the course of state formation in Denmark which, by AD 1000, became the dominant kingdom in Scandinavia. As a consequence, individual military monuments stand out as advanced feats of engineering during the Viking Age, especially in Denmark. Chieftains and kings with access to great resources were those primarily responsible for the construction of these great structures. The fortifications of this period testify not only to a technical and organisational competence but also to a familiarity with defence structures in other parts of the world. The **Trelleborg fortresses** (3) of *Trelleborg* (3.3), *Aggersborg* (3.1) and *Fyrkat* (3.2), together with the defensive earthworks of **Danevirke** (4), represent the most prominent archaeological evidence for the period's monumental and military building works. The **Trelleborg fortresses** (3) and the *Kovirke* rampart (4.13-4.18) of **Danevirke** (4) were built at the same time, around AD 980, and employed the same construction technique. The mounds and palisade at **Jelling** (2) are also roughly of the same date and they probably all refer to the kingdom of Harald Bluetooth of **Jelling**. The military installations of the AD 970-980s must be seen in relation to "the unification of the kingdom" referred to on King Harald's rune stone at **Jelling** (2). Consequently, these monuments constitute significant elements in the long process that led to the integration of Northern Europe into the European cultural community and the formation of the Medieval Scandinavian states. Furthermore, the **Trelleborg fortresses** (3) and **Danevirke** (4) demonstrate the presence of a considerable military force at selected locations, indicating that the military was based on a clear and rigid system managed by a centralised system of governance.

State formation

In those areas of Northern Europe settled by a Norse population, several of the processes behind the state formation followed similar paths but differed in detail. Norway, Sweden and Denmark, in particular, share obvious common characteristics as they are all still based on a monarchic organisation of power. Iceland, however, had from the beginning a more egalitarian and democratic state organisation, administered according to decisions made at the assembly site at **Þingvellir** (1). With regard

TABLE 2.2 *Overview of the type-sites and corresponding component parts of* ***Viking Age sites in Northern Europe****.*

TYPE OF SITE	COMPONENT PART	PERIOD OF USE (AD)
Urban settlement sites	Hedeby	800 – 1066
Mass-production sites	The Hyllestad quernstone quarries	750 – 1930
Fortification structures	The Danevirke The Trelleborg fortresses	680 – 1945 980 – 1000
Assembly sites	Þingvellir	930 – 1798
Burial sites	The Vestfold ship burials	834 – 920
Seats of governance with religious monuments	Jelling	958 – 1050
Overseas settlement sites	The Grobiņa burials and settlements	650 – 1130

to royal state formation, quite a few principal institutional functions have their origins in the (Late) Viking Age (10th – 11th century AD). These include taxation, large-scale and organised trade, regulated trading places and a centralised power structure. Consequently, the main characteristic of state formation – the institutionalisation of governance – was beginning to take shape in the Late Viking Age. The overall effect is a conscious centralisation programme, as can be recognised in **Jelling** (2), *Borre* (6.1) in **Vestfold**, **Þingvellir** (1), the **Trelleborg ring fortresses** (3) and **Danevirke** (4). Indeed, the nominated sites took centre stage in several of the ground-breaking changes which took place during the Viking Age, and which eventually led to the formation of Medieval Christian states. In *Borre* (6.1), the recent discovery of the remains of two large halls, a longhouse and a harbour, together with the association of the site with a linage of petty kings in skaldic[6] poems, identifies the site clearly as a royal estate during the early centuries of the Viking Age. The Viking Age halls are interpreted as seats of governance where gifts were exchanged and alliances built. At a later stage of state formation, the palisade area, the two mounds and the earlier stone ship setting, dating from the 10th century AD, appear to be the visual manifestations of a royal presence at **Jelling** (2). The size of the **Jelling (**2) palisade, in comparison with an ordinary rural settlement, refers to an incredibly wealthy proprietor – the king. The king of **Jelling**, Harald Bluetooth, founded the dominant Christian kingdom of the Late Viking Age. At its apogee, under Knud the Great and his son HardiKnud (AD 995-1042), this kingdom not only encompassed Denmark, Southern Sweden and Norway but also England. The enormous amounts of time and labour invested in such monumental sites as **Jelling** (2), the **Vestfold ship burials** (6) and **Danevirke** (4) indicate a form of "labour taxation", as a consequence of the establishment of central powers. **Jelling** (2) is also an excellent example of a centralised power-structure which probably also facilitated the establishment of a regulated central trading places like **Hedeby** (4). The circulation of goods on such a scale necessitates an administration of considerable competence.

[6] Skald (or skáld) meaning 'poet', is a term generally used for poets who composed at the courts of Scandinavian and Icelandic leaders during the Viking Age and early Middle Ages. Skaldic poetry forms one of two main groupings of Old Norse poetry, the other being the anonymous Eddic poetry.

CONCLUSION

The above description has outlined the transition from tribal societies to Medieval Christian states in the Viking Age, following the line of significant processes and types of sites that are reflected by the archaeological heritage combined in this serial nomination. Accordingly, urban settlement sites, mass-production sites, fortification structures, assembly sites, burial sites and seats of governance with religious monuments can therefore be considered as the minimum required types of archaeological sites for an understanding of the transition from chiefdoms to early states in Northern Europe. The examples included in this nomination are all prominent sites which support and extend our understanding of how this transition took place during the Viking Age.

In the geo-cultural region of Scandinavia and the North Atlantic islands, these types of sites developed in the Viking Age and their remains are traceable in the archaeological record. Consequently, the types of sites described above have formed the basis for identification of the component parts required for the series. However, a central feature shaping the transition from chiefdoms to early states in this geo-cultural region was also the Vikings' large area of interaction. Consequently, in addition to the types listed above, at least one *site of expansion*, in other words an overseas settlement site, is needed to shed light on the importance of outside influences. Based on this, the key sites required in order to understand this historical transition in the core region of Scandinavia are listed in Table 2.2.

Within this serial nomination, the category of urban settlement sites is represented by **Hedeby** (4), the mass-production sites by the **Hyllestad quernstone quarries** (7), the fortification structures by **Danevirke** (4) and the **Trelleborg fortresses** (3), the assembly sites by **Þingvellir** (1), the burial sites by the **Vestfold ship burials** (6), the seats of governance with religious monuments by **Jelling** (2) and the site of expansion by the **Grobiņa burials and settlements** (5). Thus the series consists of a selection of sites which

a) covers all the required types of sites and which are functionally linked,

b) covers all significant processes involved in the transformation to Medieval states,

c) consists of sites with periods of use which extend through the whole or parts of the Viking Age, and for which

d) cultural and social links can be established through written sources and portable objects.

DESCRIPTIONS OF THE COMPONENT PARTS

The following chapter introduces each of the component parts of Þingvellir (1), **Jelling** (2), the **Trelleborg fortresses** (3), **Hedeby and Danevirke** (4), the **Grobiņa burials and settlements** (5), the **Vestfold ship burials** (6) and the **Hyllestad quernstone quarries** (7). In cases where a component part consists of more than one archaeological site, the general characteristics of the component part are briefly introduced before each of the archaeological sites is described in further detail.

ÞINGVELLIR (1)

The component part of **Þingvellir** is located in the innermost core area of the Þingvellir National Park which, in turn, is located in the Bláskógabyggð Municipality in the southwest region of Iceland, about 50 km from the capital, Reykjavík. The innermost area of the national park can be regarded as one large archaeological site consisting of archaeological remains associated with the general assembly proceedings which were established in AD 930.

EXTENT OF THE COMPONENT PART

The nominated site is bordered by two fissures, Almanna-gjá to the west and Flosagjá to the east. To the south, it is bordered by lake Þingvallavatn and to the north by the Öxarárfoss waterfall. These features are clear and distinct and encompass all known ruins dating back to the assembly period. This is the innermost part of the Þingvellir National Park and the rest of the national park makes up the buffer zone (see Figure 1.2).

FIGURE 2.6 *One of the booths in Þingvellir, with the church and the Þingvellir farmhouse in the background.* ©*Einar Á.E. Sæmundsen.*

LANDSCAPE AND GEOGRAPHY

The Þingvellir area is part of a fissure zone running through Iceland, being situated on the tectonic plate boundaries of the Mid-Atlantic Ridge. The most striking features of the assembly site are the faults and fissures that are evidence of movements in the earth's crust, which have been taking place through earthquakes over the last 9000 years. The land between the Almannagjá fissure and the Hrafnagjá fissure has subsided since the time of the settlement, so the landscape no longer has its original form. The land would originally have been higher, the current in Öxará (the Axe river) stronger and lake Þingvallavatn further away. The assembly fields themselves, after which Þingvellir is named, would therefore have been drier than they are today.

DESCRIPTION OF THE REMAINS

Although few man-made structures remain intact at Þingvellir, numerous remains testify to human activities connected with the assembly. The principal archaeological remains are in the area where the Althing assembled. The largest collection is along the west bank of the river Öxará, beneath Hallurinn (the Slope), where numerous remains of booths can be seen, arranged in rows and, in some cases, in clusters, over an area about 100 m wide and 350 m long. Remnants of at least 50 booths and other man-made structures are found in this area. The "thingmen" attending the Althing stayed in some of the booths. In other booths, various services were provided by tanners, brewers and cooks. The booths had walls of turf and rock with a timber frame extending over them and a canopy of homespun fabric. According to Grágás, the old law code, assembly participants were to bring enough fabric with them to cover the width of their booth. The remains do not give an entirely accurate picture of the scope of the assembly, or the number of people attending it, because many lower-ranking attendees did not build booths, but stayed in tents during their time at the assembly, leaving little trace of their presence. Remains of booths are characteristic of assembly sites. Like other

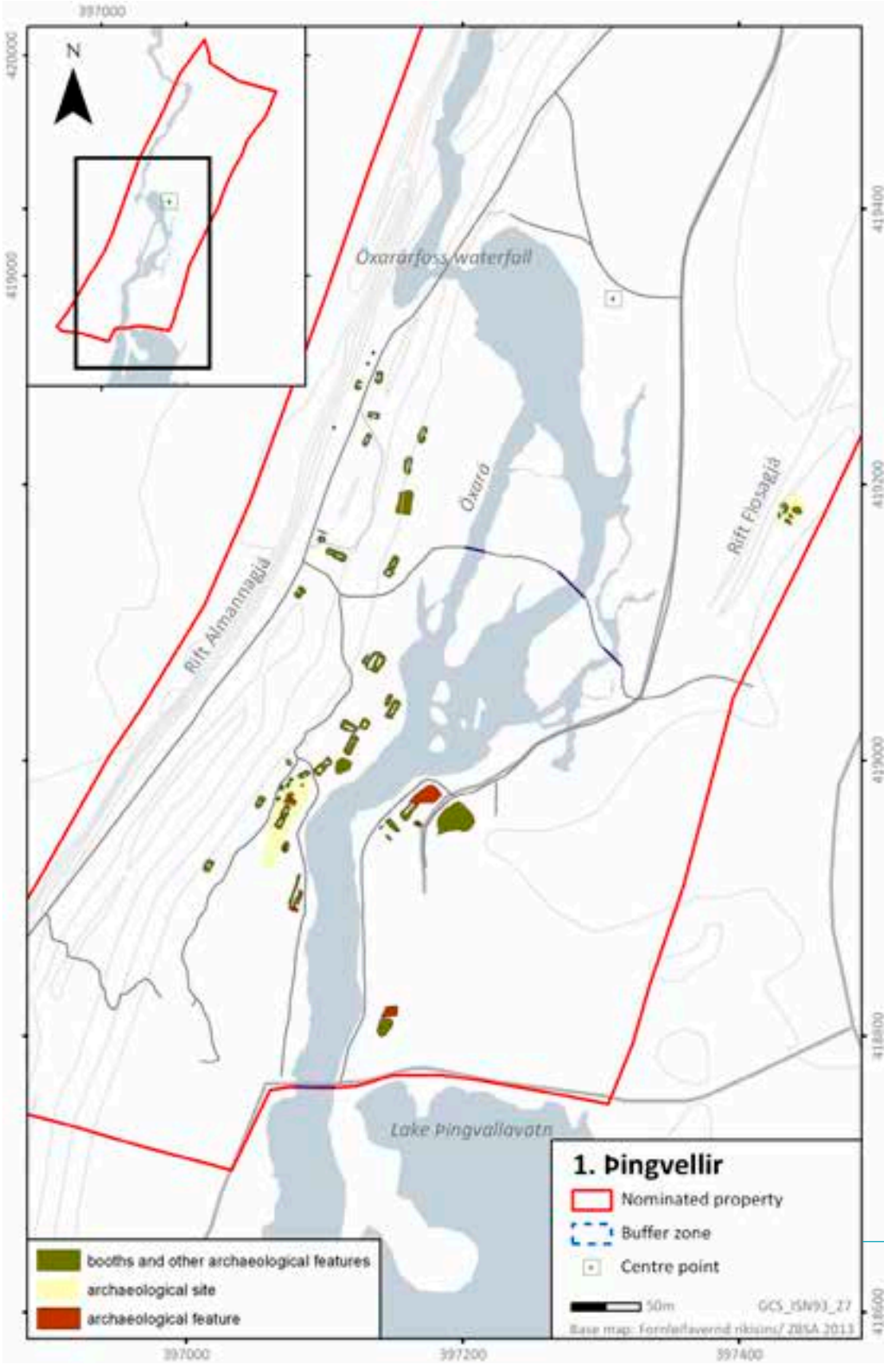


FIGURE 2.7
Map of the archaeological remains at Þingvellir

buildings made from turf and rock, the booths needed to be regularly renovated. As later booths were often placed on older ruins, low mounds developed in the most popular areas at the assembly site where most of the thingmen stayed. The remains of the booths can be seen today as grassy undulations in the landscape. This accumulation of ruins means that Þingvellir is today one of Iceland's most important and extensive archaeological sites. The majority of booth ruins presently visible on the surface at Þingvellir date from the 17th and 18th centuries.

Place names, which refer directly to the Althing and its proceedings and which are known from early sources, are *Þingvöllur* (Assembly Plain) and *Lögberg* (Law Rock), *Almannagjá* (Everyman's Gorge) and *Fangbrekka* (Wrestling Slope). Place names derived from sources of later date but which may still have source value with regard to earlier times are: *Drekkingarhylur* (Drowning Pool), *Gálgi* (Gallows), *Kagahólmi* (Whipping-post Islet) and *Klukkuhóll* (Bell Hill). The names of several booths, used during the Althing assembly, are also known: *Njálsbúð* (Njáll's Booth), *Snorrabúð* (Snorri's Booth), *Byrgisbúð* (Shelter's Booth), *Mosfellingabúð* (the Mosfell People's Booth), *Lögmannsbúð* (the Law Man's Booth), *Amtmannsbúð* (the Regional Governor's Booth), *Stiftamtmannsbúð* (the Governor's Booth), *Fógetabúð* (the Sheriff's Booth) and *Biskupabúð* (the Bishops' Booth).

Furthermore, there are the remains of a structure named Lögrétta (the Law Council) which is believed to have been the final location of the law council/court of law at the assembly. It takes the form of a square grassy foundation at the foot of the slope of Lögberg. Another central feature is believed to be that of Lögberg (Law Rock), a man-made platform located on top of Hallurinn (the Slope). During the time of the Icelandic Commonwealth from AD 930 till 1262, Lögberg, the Law Rock, was the hub of the Althing meeting. The Law Speaker, who proclaimed the laws of the Commonwealth, had a special place there. He memorised the laws and had three years in which to recite all of them. However, each summer he also had to recite the procedural rules. The role of Lögberg disappeared early on in the history of the Althing when, in 1262, Icelanders swore allegiance to the Norwegian king with a special covenant, Gamli sáttmáli. Because of this, the precise location of the Lögberg has been a matter of some debate, but two locations have been pointed out as the most reasonable candidates. On one hand, Lögberg could be the flat ledge at the top of the slope Hallurinn, north of the Hamraskarð pass, where the flagpole is sited now. On the other hand, Lögberg might have been in the Almannagjá fault itself, up against the upper rock wall.

The third collection of remains consists of booths in the Almannagjá (Everyman's Gorge), most of them dating from the later centuries of the Althing. Those remains are clearly visible along the path and provide good opportunities for on-site interpretation of the history of Þingvellir.

On the other side of the river, adjacent to the churchyard, there are extensive remains of booths which belonged to leading ecclesiastical figures, known as Biskupabúð (the Bishops' Booth). This extensive site was partly excavated in 2002-2006. The remains- were dated to the 10th century AD, the time when assembly proceedings began at Þingvellir. The remains unearthed consisted of numerous stone alignments, a stone-filled trench, parts of stone-faced turf walls, ephemeral floor surfaces and localised patches of burning or temporary hearths. These are interpreted as remnants of several temporary structures, each of which may have undergone numerous episodes of repair and reconstruction.

At some distance to the north of the church there are old man-made structures on Spöngin (the Neck), a narrow strip of land between two water-filled fissures. The remains have been excavated and studied previously, but have yet to be satisfactorily interpreted. In a recent thesis by Aidan J. Bell, it is argued that Spöngin functioned as a pagan sanctuary and that the law council (Lögrétta) was

FIGURE 2.8 *Double crook crosier from Þingvellir.*
©Þjóðminjasafn Íslands/National Museum of Iceland.

FIGURE 2.9 *Photo of finds from the 2009 excavation at Þingvellir Silver coin (above) and copper weight (beow).* *©Einar Á.E. Sæmundsen.*

originally located on Spöngin when the Althing was established in AD 930, but was later moved following the constitutional reforms of AD 965.

DESCRIPTION OF THE FINDS

Due to the nature of the assembly at Þingvellir – it took place only a short time every year – and the limited number of excavations carried out relatively few finds have been recorded.

A double-crook crosier dating from the 11th century was unearthed in 1957 during the laying of an electricity cable to Hotel Valhöll. The crosier was found in a low-lying, uneven patch of grassy ground located a short distance north of the eastern end of the bridge across Öxará river to the south of the Þingvellir house.

Finds from excavations in 1999 included a silver coin which turned out to be Norwegian andfrom the period AD 1065-80. It is an imitation of a coin from the reign of Ethelred II or Knud the Great, minted in England around AD 1000 (997-1003). As far as is known, no identical coin, i.e. minted using the same die, has been found previously. Only one other 11th century Norwegian coin has been found in Iceland, at Bessastaðir in 1996.

In excavations carried out in 2002-2006, the finds included various artefacts. Some were of metal, predominately iron but also copper alloy and lead, and there were small quantities of ceramics, glass and stone objects and clay pipe stems, as well as remains of bone and teeth. Some charcoal fragments, charred animal bones and a piece of hack silver were found in a mound to the north of the Flosagjá ravine.

In 2009, a small excavation took place in a limited area in front of the Þingvellir church. In total, 1090 artefacts were found and recorded under 390 find numbers. Some were of particular interest, for example a copper weight of approximately 250 g and a silver coin from the 10th century AD (Fig.2.9).

CONCLUDING REMARKS

Current knowledge of the development of the Þingvellir site and the history of the Althing is based on written historical sources and an assessment of the archaeological remains in the area. The remains at Þingvellir, on the site of the Althing, are unparalleled elsewhere in the world. Remains of numerous man-made structures, pertaining to the assembly and its functions and dating from the 10th to 18th century, are to be found there. The area with remains at Þingvellir is also unique in its entirety, in that evidence of a large number of the attendees' booths is still visible on the surface and the overall layout of the assembly area can still readily be envisaged. The dramatic history of the establishment of the Althing around AD 930 provides insights into how a Viking Age pioneer community organised its society from scratch and evolved towards the modern world.

FIGURE 2.10 *View of the two Jelling mounds, part of the stone setting and the church, seen from the northeast. The stone setting is seen here laid out according to Dyggve's 1942 interpretation. ©M. Dengsø Jessen.*

JELLING (2)

The component part of Jelling is located in Vejle Municipality in the region of Southern Denmark, and is treated as one large archaeological site consisting of two mounds, a church with underlying remains of older buildings, two rune stones, the remains of a stone setting and a palisade with attached houses.

EXTENT OF THE COMPONENT PART

The nominated component part comprises all elements of the Jelling complex. The boundaries of the component part are the outer limit of the palisade and this includes all known elements of the complex.

The elements comprise two mounds, two rune stones, a church with traces of three preceding wooden buildings, traces of a stone setting, traces of a palisade and traces of three houses of Trelleborg type. The mounds, the rune stones and the church are visible monuments while the traces of the stone setting, the palisade and the houses are preserved beneath the surface. The traces of the buildings beneath the church are only known from an archaeological survey. The stone setting, the palisade and the houses associated with this are marked using modern materials on the surface and without interfering with the remains.

There is no buffer zone for the Workd Heritage Property *Jelling Mounds, Runic Stones and Church* (ref. 697). The boundary of the property was designated in 2007 and defined as the area owned by the church. The buffer zone for the nominated component part is designed to safeguard the integrity of the adjacent setting in the town. Towards open land the buffer zone is extended to secure the visual integrity of the landscape (see Map 1.4).

LANDSCAPE AND GEOGRAPHY

Jelling and elements of the monument are positioned atop the north-south orientated ridge which dominates the interior of the Jutland Peninsula. Of particular interest is the fact that Jelling also marks the watershed, where water will drain to the west and the east respectively. This position means that the sources of four of Jutland's major rivers and streams lie within 15 km of the monument, each flowing in a different direction. Consequently, the Jelling area would have been an attractive place to pass through when travelling in Central Jutland.

DESCRIPTION OF THE REMAINS

The mounds

The South Mound goes by the name of Gorm's Mound and, like its counterpart to the north of the church, it has been subjected to several investigations which have revealed that it does not contain any burials. Apparently it comprises at least two phases, separated by an intermission

FIGURE 2.11 *The northeast corner of the palisade. ©M. Dengsø Jessen.*

long enough to allow the formation of an archaeologically recognisable layer of vegetation covering the first phase of turf construction. Dendrochronological analyses of wood from the mound have provided dates indicating that the mound was built after AD 963, most probably around AD 970 (Christensen & Krogh 1987: 631; Krogh 1993: 168, 214-218). The dating of the second phase is uncertain.

The North Mound is traditionally called Thyra's Mound and has been investigated in numerous campaigns since 1820, when a central wooden chamber was discovered by the townspeople of Jelling. The chamber measured 2.6 x 6.75 m in plan and was 1.45 m high. Most of the burial furnishings and possibly also the bones of the interred had apparently been removed in connection with an earlier intrusion into the mound. The identity of the buried individual or individuals has been much disputed, attention focusing particularly on Queen Thyra and King Gorm (Kornerup 1875: 630; Krogh 1993: 168; Andersen 1995: 574; Staecker 2005: 629). Timber from the mound and from the wooden chamber has been dated dendrochronologically to AD 958/59 and c. AD 960, respectively (Krogh 1993: 214-218).

The palisade and the palisade area

Investigations in 2006 revealed traces of a large wooden palisade located 150 m north of the North Mound. Since then, the course of the palisade structure has been pursued in various excavations. Collectively, the results of these draw the contours of an enormous rhombic enclosure, which completely surrounds the monuments and has sides of almost equal length, varying only between 358 and 360 m. In 2010, large parts of the northern and eastern sides and smaller parts of the other sides were uncovered. In 2012-2013, a minor part of the palisade timber was located *in situ* and a small section of this was investigated.

The northwest and northeast corners have been identified and the course of the palisade has been established on both sides close to the southeast corner. Only the position of the southwest corner is still somewhat uncertain. Judging from a projection of the known course of the palisade over some distance, the corner is presumed to lie beneath a modern residential building in the town. The sides of the palisade are virtually straight. On the two best investigated sides, to the north and the east, there is a maximum deviance of 1.3 m from an average straight line through

FIGURE 2.12 *The large rune stone with a depiction of Christ.* ©P. Wessel.

the palisade, corresponding to less than a 0.5% deviation. A slight tendency towards convexity near the corners can however be detected (see Figure 2.13).

The internal area of the palisade is approximately 12.5 ha. It was constructed as a wooden wall made up of large, closely-set vertical oak planks up to 0.15 x 0.35 m in cross-section and with supporting posts of 0.25 m in diameter placed at somewhat regular intervals of on average 1.25 m on both the inside and outside. The planks were set in a trench, which appears to have been dug up to 1-1.2 m below the soil surface. This indicates that the palisade rose to a considerable height, possibly over 3 m. Considering its sturdy design, an upper construction on the palisade cannot be ruled out.

So far, a single entrance has been recorded. It is located in the central part of the northern side and it revealed itself as a 2 m wide interruption of the palisade with four posts set in a 2.8 x 4 m rectangular structure around it. Two ^{14}C dates for charcoal from the palisade range between AD 685-878 and AD 780-985 respectively (2σ), while four ^{14}C dates for the timber range between AD 670 and AD 940.

In 2013, 11 samples of the palisade timber, recovered during an investigation of a pond, Smededammen, in 2012-13, were dated dendrochronologically. According to the interpretation of these dates, the oak trees were felled in the period AD 958-985, probably around AD 968.

In the northeastern part of the palisade area the traces of three wooden buildings are preserved as postholes in the subsoil. They are identical in terms of design and construction and are similar to the buildings in the Trelleborg ring fortresses and are therefore named houses of Trelleborg type. They differ only slightly from the standard Trelleborg type by having a smaller central room. All three houses are placed parallel with and in the same distance from the palisade and must be contemporaneous with it. The houses in the ring fortresses are dendrochronologically dated to AD 979-981 and this date is based on timber from the fortress construction. The small deviation in size

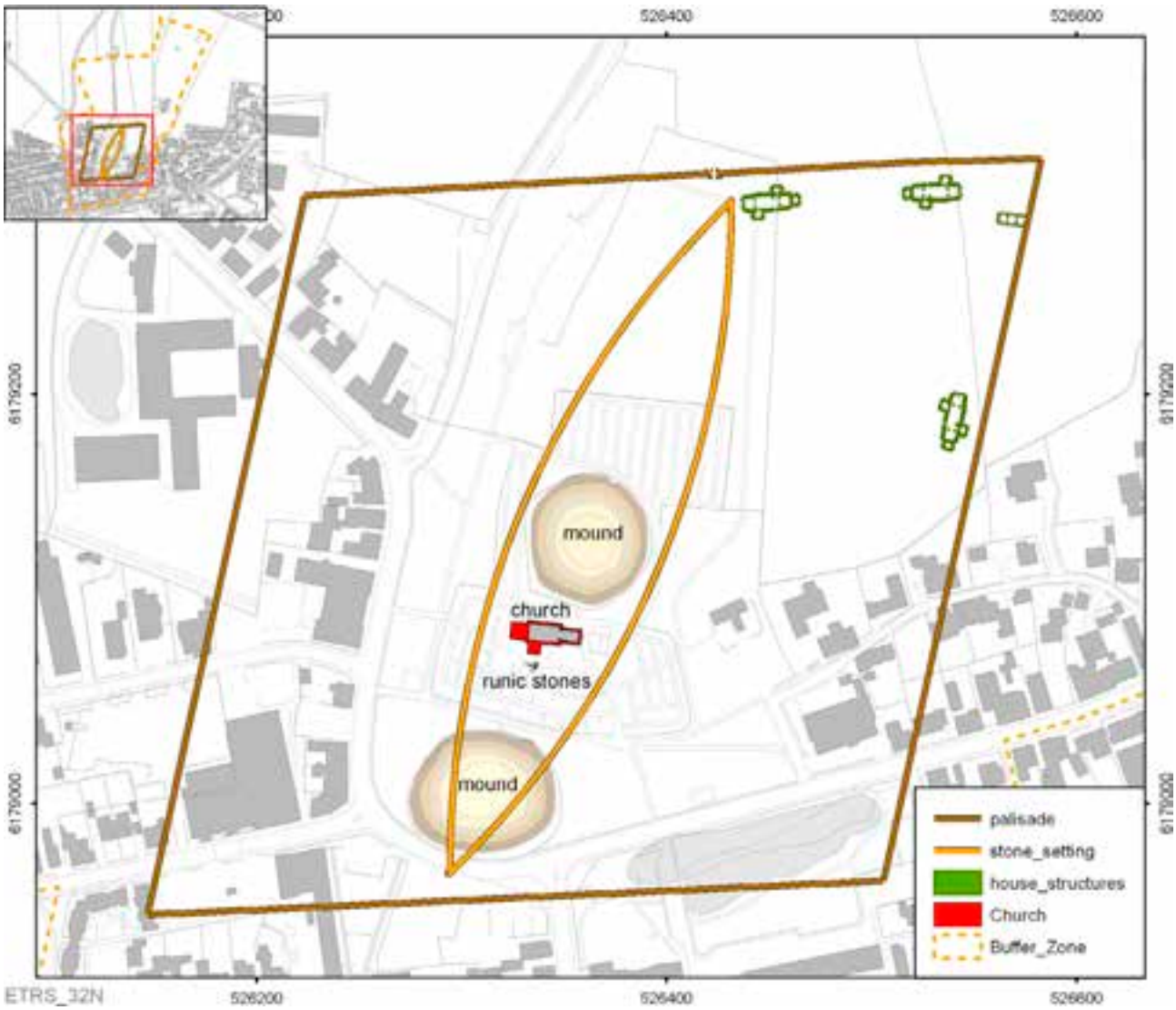


FIGURE 2.13 *Overview of the remains at Jelling.*

indicates that the houses in the palisade area could be a little older (Hvass 2011). The traces of a smaller building – not of Trelleborg type – in the northeastern corner of the palisade area is interpreted as an auxiliary building and is of uncertain date.

Even though several structures and houses of Trelleborg type have been located inside the palisade area, it is also clear that an absence of Viking Age structures prevails in certain areas. This phenomenon is most evident in the excavated area between the northeast corner of the palisade and the North Mound, where a huge open space between the houses and the mound dominates the area. This bears witnesses to a stringent building design which corresponds to the overall concept of the monument. The palisade and the structures within it were carefully planned beforehand and they exhibit a type of architectural achievement which differs from the more dispersed settlement planning of contemporary Scandinavia.

The stone setting

Underneath the South Mound, two rows of monoliths of slightly diverging orientation were uncovered. Together with the various monoliths recorded in the church cemetery, they appear to have formed part of a structure of standing stones presumed to be a ship setting. The inte-

gration of the stone setting in the Jelling complex is confirmed by the geometric lay out.

In the 2006-excavation north of the North Mound, a further seven large stones were found. They were arranged in a northward pointing V-shape aligned with the main axis of the standing stones under the South Mound but had been toppled into deep pits, probably as a later effort to facilitate agricultural use of the area (S.W. Andersen 2008, 2009).

The discovery of the northern stones revived an old theory that the standing stones had originally formed part of a very large ship setting, approximately 358 m in length, which had completely surrounded the North Mound. This interpretation was further supported by the recorded positions of the stones in the church cemetery, a row of presumed stone traces excavated on the western side of the North Mound in 1964-65 and a description of the monuments from 1771 by Søren Abildgaard (S.W. Andersen 2009). Nevertheless, the archaeological traces between the two ends of the ship setting are vague and alternative interpretations cannot be excluded. A large posthole measuring 0.5 x 0.7 m in plan and 1.7 m in depth, below the present ground surface, was uncovered at the point of the northern structure. Three ^{14}C dates for charcoal from this posthole have results of AD 538-660, 544-650 and 669-890 (2σ); these must be considered as the earliest dates for the construction due to the potential old wood factor.

The church

Archaeologically, the area within and around the church presents the more complex part of the Jelling excavations, with traces of several building structures in a stratified sequence and numerous burials dating from the 10th century AD and onwards. Of particular importance is a large chamber burial containing the bones of a male of about 35-50 years of age. It also contained artefacts which have been dated to the early to mid 10th century and which show clear stylistic similarities to the artefacts found in the chamber in the North Mound. The two graves are only about 50 m apart and it has been suggested that the burial represents the remains of King Gorm, perhaps transferred from the North Mound into a proposed Christian context by King Harald after his acceptance of Christianity in AD 965 (Krogh 1983, 1993, 2007). This interpretation has, however, been contested and several alternative interpretations have been proposed (Andersen 1995; Staecker 2005; Harck 2006).

Beneath the present tufa church, dating from the late 11th or early 12th century AD, traces of several wooden buildings have been uncovered. Knud J. Krogh identified three preceding phases, which he perceived as all being church buildings (Krogh 1981, 1983). The absolute dates for the various stages of the building sequence beneath the church are uncertain, but the mid 10th century chamber burial appears to belong to an early stage of the development, preceding or contemporary with the first recognisable buildings (Krogh 1983; Harck 2006). In the light of settlement excavations in recent years, it is likely that the sequence of the buildings under the church should be re-interpreted. It is possible that a functional transformation of some form of residential or ceremonial hall into a church has taken place.

The rune stones

Three rune stones are known from Jelling. However, only the two stones positioned immediately south of the church are associated with the royal family.

The small rune stone states that "King Gorm made this monument (kuml) in memory of Thorvi (Thyra), his wife, Denmark's adornment". Based on the historical references, the inscription is dated to the middle of the 10th century. The stone was moved to its present, upright position around AD 1630; its original location is unknown (Jacobsen & Moltke 1942, 74-75).

The large rune stone, with its unique iconography, proclaims that "King Harald commanded this monument to be made in memory of Gorm, his father, and in memory of Thorvi (Thyra), his mother – that Harald who won the whole of Denmark for himself, and Norway and made the Danes Christian". This is the first known depiction of Christ in Scandinavia. Based on the historical references, the inscription is considered to post-date Harald Bluetooth's acceptance of Christianity around AD 965. Investigations by Ejnar Dyggve in 1942 and Knud J. Krogh in 1981 provided evidence that the stone is standing in its original position (Krogh 1983, 210-214). This was confirmed in 2011 by the archaeological investigation in connection with establishing the covers for the rune stones.

The elements of the Jelling complex have an inner coherence which indicates the high level of planning and engineering that was involved. The wooden chamber in the North Mound is at the centre of the whole structure. It is the centre of the mound itself and of the stone setting and it lies on the intersection of the palisade's diagonals. The centre of the South Mound, marked with a post, is located

on the longitudinal axis of the stone setting and the same is true of the large rune stone. Furthermore, a common unit of measurement appears to have been used since the inner diameter of the ring fortresses is either 120 m or 240 m and the length of a palisade side is 360 m. A similar coincidence also exists in the dimension of the houses of Trelleborg type.

DESCRIPTION OF THE FINDS

Despite the great intensity of archaeological investigation during recent centuries, the number of Viking Age objects recovered from Jelling is relatively small. When the central wooden chamber in the North Mound was opened in 1820, a silver cup was found bearing ornamentation that has given its name to one of the Viking Age decorative styles, the Jelling style. Some metal fittings from a belt found in the wooden chamber show stylistic similarities with fittings recovered from the burial chamber in the church, excavated in 1978. A piece of a decorated oak panel was also found. The South Mound did not contain a grave but tools were found inside it from the construction process.

Among the very few casual finds is a Kufic coin with a suspension hole, confirming Viking Age connections with the Muslim world.

CONCLUDING REMARKS

In the 10th century AD, Jelling was a royal monument complex during the reigns of Gorm the Old and his son Harald Bluetooth. After introducing Christianity into Denmark, and establishing his rule over Norway, Harald Bluetooth proclaimed his achievements by erecting a rune stone between the two mounds and building the first wooden church at Jelling. Consequently, Jelling is a site which marks the beginning of the conversion of the Scandinavian people to Christianity.

As such, the Jelling mounds, rune stones, church, stone setting and palisade area are outstanding manifestations of an event of exceptional importance. This site is exceptionally well-designed and makes use of old symbols which are reinterpreted. It gives legitimacy by reference to tradition, but supersedes everything that went before to manifest power and make Jelling a seat of governance. This transition between pagan and Christian beliefs is vividly illustrated by the successive mounds in pagan tradition, a pagan rune stone, another stone commemorating the official royal acceptance of Christianity and the emergence of the Church representing Christian predominance. For these reasons, the Jelling complex is exceptional in Scandinavia, as well as in the rest of Europe.

Following identification of the palisade and the design of the stone setting in the Jelling complex, the site's kinship with the ring fortresses and Kovirke/Danevirke has become more obvious. The geometry, the unit of measurement and the consequent architecture characterise the monuments, attributed to Harald Bluetooth.

THE TRELLEBORG FORTRESSES (3)

The component part of the Trelleborg fortresses is located in Denmark, on Zealand and in Northern Jutland, and consists of three separate archaeological sites: Aggersborg near Løgstør (in the northern part of the Jutland Peninsula), Fyrkat near Hobro (in the northern part of the Jutland Peninsula) and Trelleborg near Slagelse (on the island of Zealand). Similar in layout and construction, these monuments are collectively known as the Trelleborg-type fortresses.

The sites of all three fortresses have been under cultivation, with the exception of part of the rampart at Trelleborg. In continuation of the archaeological investigations they were visualised in the landscape, to varying degrees, by marking or reconstructing the ramparts and recutting the ditches.

EXTENT OF THE COMPONENT PART

As the component part includes three separate sites in different parts of Denmark, they have their own borders.

The boundary of the Aggersborg site follows the outer edge of the ditch, but in the area of the manor of Aggersborggård the boundary is defined in order to include the traces preserved beneath the surface but to exclude existing buildings, where the Viking Age structure has been demolished. The buffer zone is designed to safeguard the visibility of the site's association with the fjord and to maintain the visual integrity of the surrounding landscape, which underlines the site's strategic location on the coast.

The boundary of the Fyrkat site partly follows the outer edge of the ditch, but towards northeast the nominated site is expanded to include the cemetery. The buffer zone is designed to safeguard the site's visibility and association

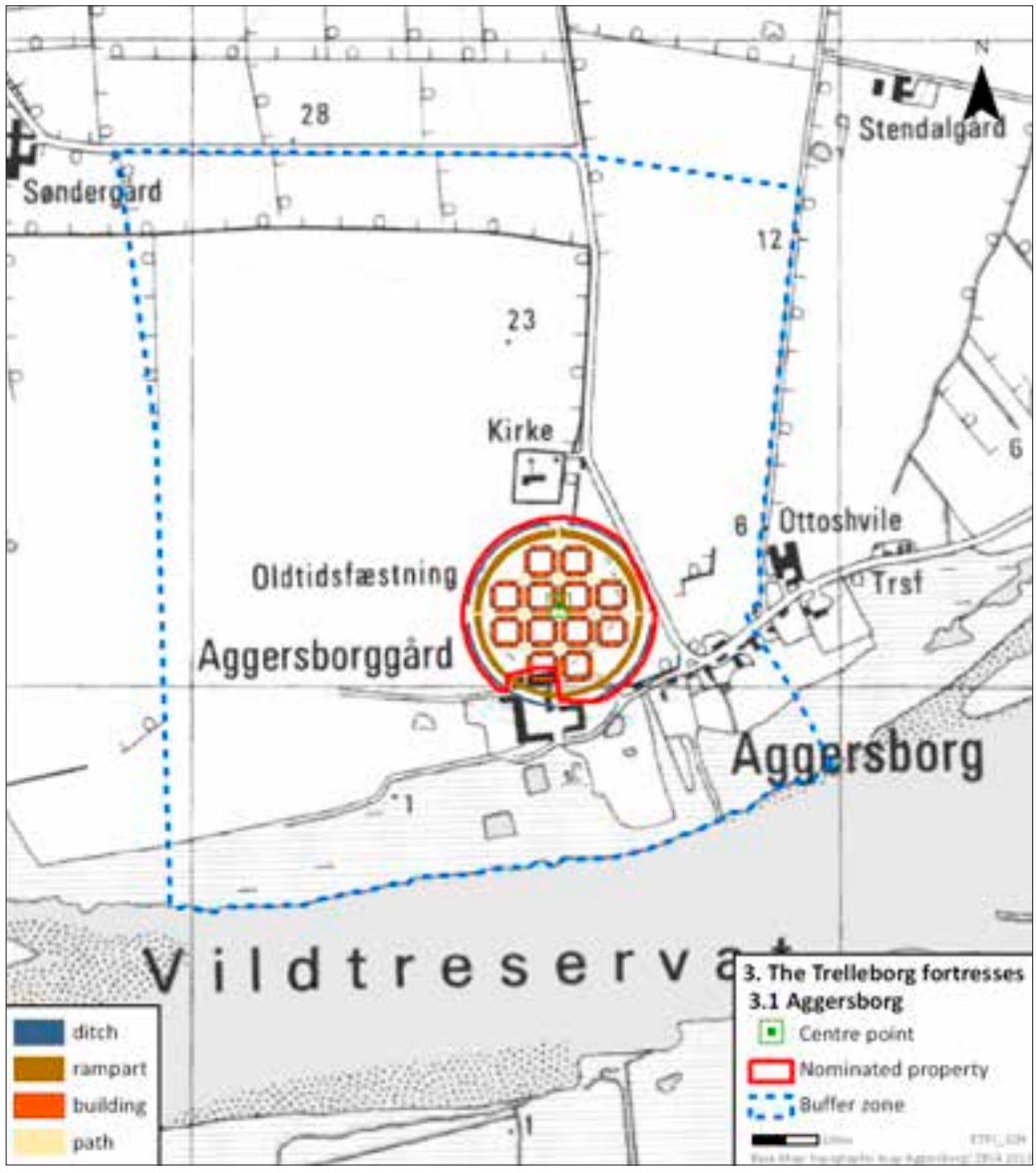


FIGURE 2.14
Overview of the remains at Aggersborg.

with the river valley and the hilly landscape southeast of the fortress. Furthermore, it constitutes the setting for the fortress on the promontory in the valley.

The boundary of the Trelleborg site follows the outer part of the bank towards the northwest, towards the southwest it follows the outer edge of the ditch and towards south and southwest it follows the outer edge of the ditch along the outer rampart. Towards the northwest, the boundary is formed by the riverbank of Tudeå. The buffer zone is designed to safeguard the site's visibility and association with the two small rivers and the lowland area between them and to maintain the visual integrity of the surrounding hilly landscape.

LANDSCAPE AND GEOGRAPHY

Aggersborg is the northernmost of the Trelleborg-type fortresses and lies by the Limfjord on a moraine promontory surrounded by sandy washlands. The fortress is located only about 2 km to the west of the important fjord crossing at Aggersund. By virtue of its location, Aggersborg held an excellent strategic position, offering excep-

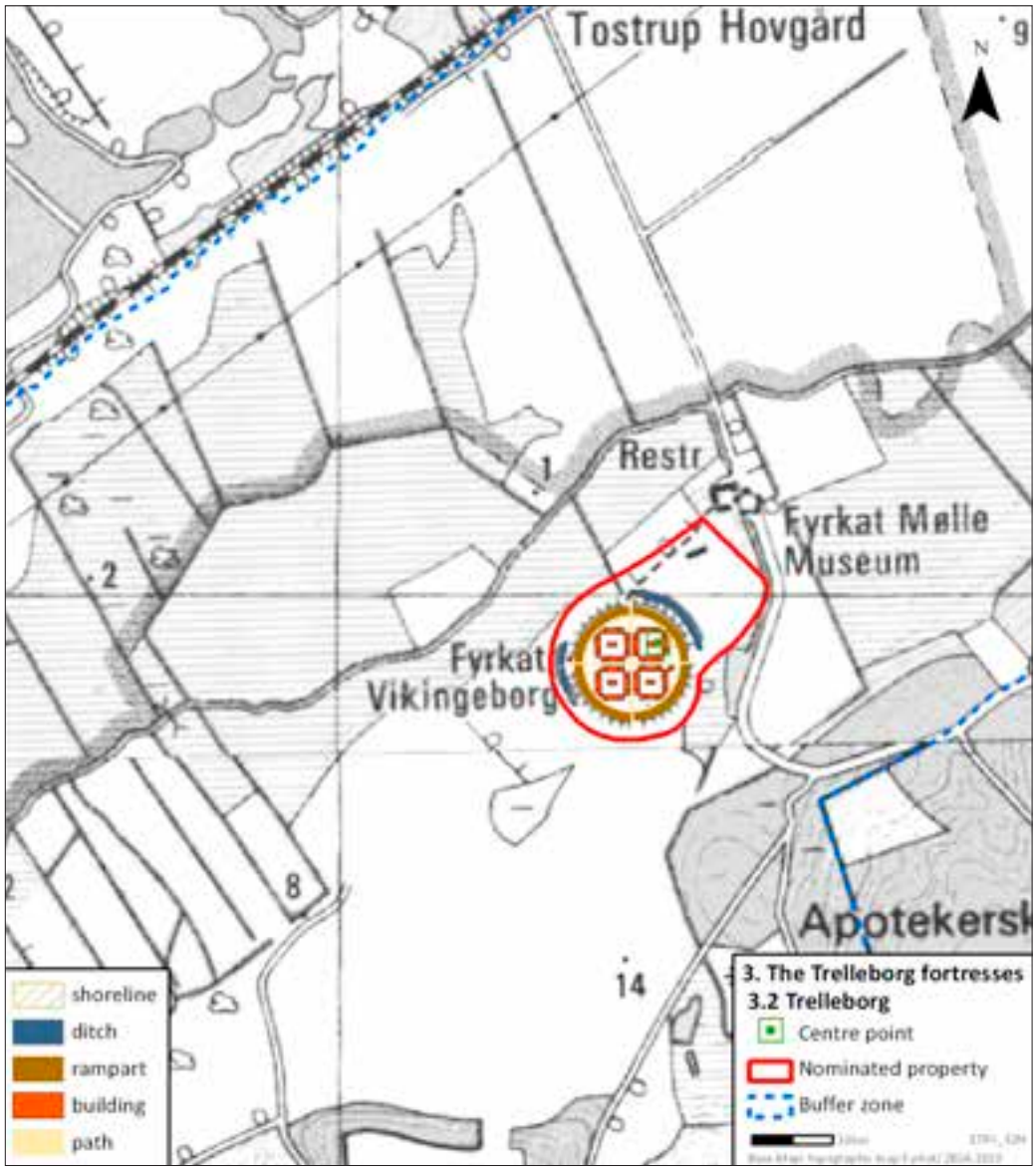


FIGURE 2.15
Overview of the remains at Fyrkat.

tionally good views out over the waterways. This location suggests that the Limfjord must have been one of Denmark's most important sailing routes – the connecting link for maritime traffic between Western Denmark, Western Europe and the North Atlantic.

Fyrkat is located close to both Hærvejen (literally the Army Road), leading from the north of Jutland to the south and on into Germany/Europe, and Mariager fjord. In the Viking Age, when the regional water level was higher than it is today, the Fyrkat fortress was constructed at the head of Mariager fjord where the fjord meets the river Onsild Å. The fortress stood well protected here on a promontory, with open water to the north and boggy meadows to the east and south. The water close to the fortress was probably between about 0.5 and 1 m deep.

Trelleborg lies in a flat cultivated landscape about 3 km from the Great Belt. It is located on a promontory where two small rivers, Tudeå and Vårby Å, meet and encircle the site. During the Viking Age the landscape was characterised by large wetland areas with bogs, meadows and commons. The only access to the promontory from dry land is from the east and southeast through the outer enclosure.

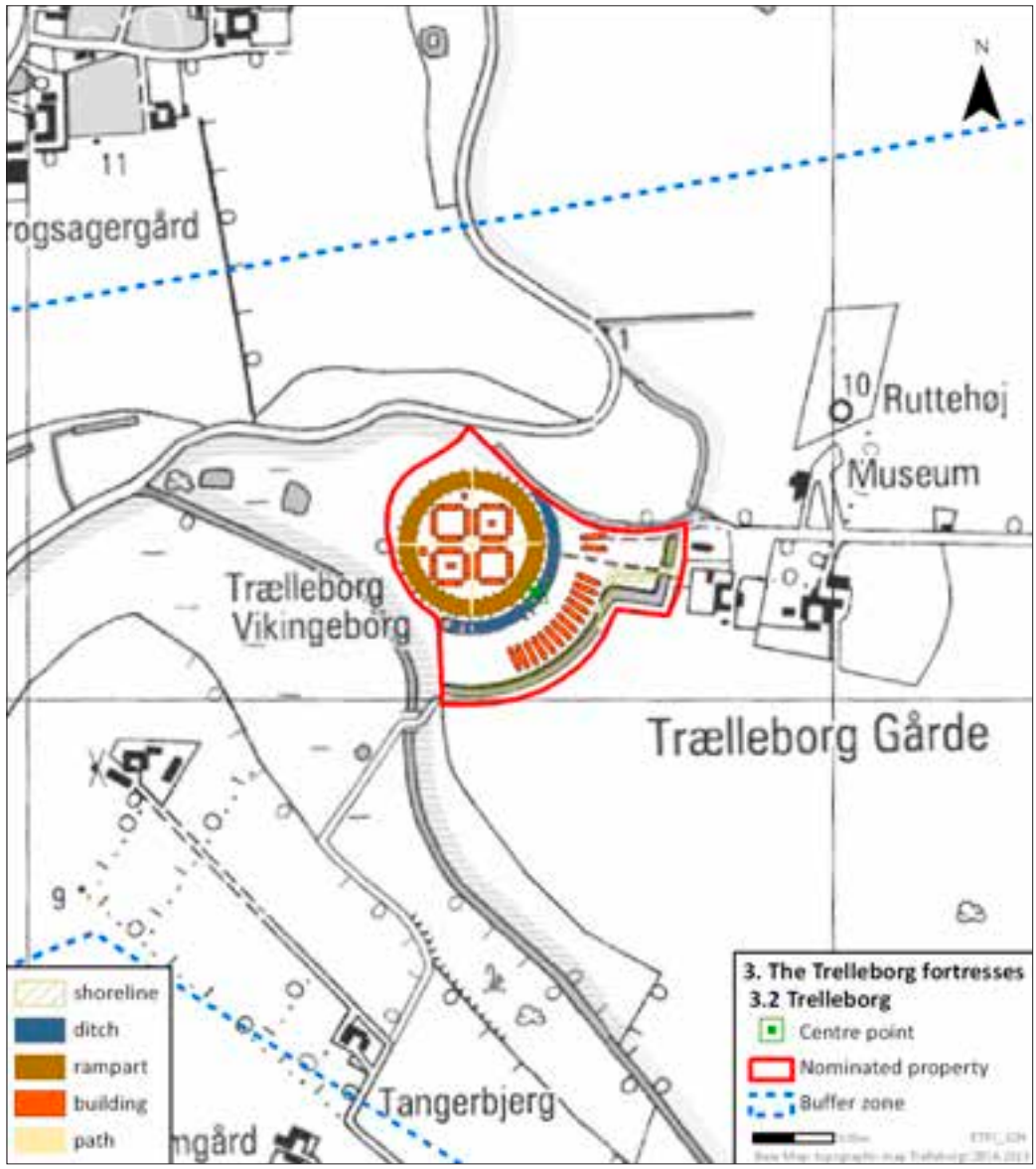


FIGURE 2.16
Overview of the remains at Trelleborg.

The Trelleborg fortresses all show a common use of promontories associated with fjords and small rivers, bearing witness to the strategic use of the landscape in these regions. At a broader scale, the fortresses are located at important routes and crossroads.

DESCRIPTION OF THE REMAINS

The Trelleborg-type fortresses of the Viking Age are characterised by a circular rampart with an associated ditch and four gateways. All three monuments have a uniform and stringently symmetrical architectural layout. This is manifested in the circular form of the fortifications and the location of the four gateways according to the points of the compass – apparently regardless of the terrain. The fortresses have a strictly geometric street plan, a division of the internal area into quadratic blocks and, within these, four longhouses c. 30 m in length and up to 8 m in width, arranged as a four-winged complex. A circular street runs round along the inside of the rampart; outside the rampart there is a ditch.

Dendrochronological and ^{14}C dates reveal that the Trelleborg-type fortresses were built around AD 980, but probably only functioned for a period of 10 to 20 years. Consequently, the three fortresses were abandoned already in the

FIGURE 2.17 *Photo of Aggersborg.* ©*H. Olesen, 2012.*

Viking Age, but the structures survived in various conditions. At the beginning of investigation campaigns in 1934-50, the sites of Aggersborg and Fyrkat were both ploughed down. This was also the case at Trelleborg, with the exception of the rampart which was partly preserved. In these investigations, the remains of the ramparts and the ditches were recorded. Traces of buildings and streets were recorded in the form of postholes in the subsoil, while graves were found to be partly intact. Through these investigations it became clear that, although the Trelleborg-type fortresses are, at a general level, identical in form, they vary in size and also with regard to various constructional details.

Aggersborg measures 240 m in internal diameter and includes a circular fortress with a rampart and a ditch on the outside. On the circular area within the rampart there are the traces of buildings of Trelleborg-type and remains from an earlier settlement. The organisation of the Trelleborg-type fortresses comprises four quadrants divided by two wood-paved axis streets which cross at the centre. Each quadrant is further divided up by short transverse streets into three smaller blocks of four buildings arranged around yards. The rampart is marked by a low turf structure, and the ditch has been partially emptied of modern soil, while the traces of streets and buildings are not visible but have been partly identified through archaeological investigations. They are not marked on the surface. As a consequence of the construction of the manor of Aggersborggård in the Late Middle Ages, and its subsequent extension during the 20th century, the southern tenth of the fortress area is disturbed.

Fyrkat measures 120 m in internal diameter and includes the circular fortress with rampart and ditch which, towards the north, is comprised of the natural slope of the river valley. On the circular area within the rampart there are the traces of streets and buildings of Trelleborg type, arranged in four quadrants, each with four houses. One of the quadrants has not been investigated, while the others have been partly excavated. The rampart and the ditch are visible because they have been re-cut, whereas the postholes associated with the streets and the buildings

FIGURE 2.18 *Fyrkat.* ©*J. Nørgaard.*

are marked on the surface. The cemetery at Fyrkat is situated immediately outside the rampart and the graves are marked out as small elevations in the terrain; a section of a road running through the cemetery is marked with gravel.

Trelleborg measures 136 m in internal diameter and includes the circular fortress with rampart and ditch. On the circular area within the rampart there are the traces of streets and houses of Trelleborg-type, arranged in four quadrants, each with four houses. Outside the southeastern part of the ring fortress, an outer rampart with a ditch bounds an enclosure with 13 houses of Trelleborg type. These are radially arranged with their longitudinal axes pointing toward the centre of the circular fortress. Another two houses lay parallel to each other along a street running between the gateways in the circular and the outer rampart. This street also runs through the cemetery in the enclosure. All the ramparts and ditches are visible because they have been re-cut, whereas the postholes associated with the streets and the buildings are marked on the surface. The cemetery is situated immediately outside the rampart and the graves are marked out as small elevations in the terrain.

DESCRIPTION OF FINDS

The number and character of the finds from the Trelleborg fortresses is inhomogeneous because of the varying intensity of research at the three fortresses.

Aggersborg differs from the two other sites because of the traces of an older settlement at the site, which was demolished immediately prior the construction of the fortress. Furthermore, no cemetery has been found at Aggersborg. In the investigations of the circular fortress area carried out in 1945-52 it was not possible to distinguish clearly the remains relating to this older settlement from those of the ring fortress. At the time of the excavations, there were no experience of investigating complicated settlements with several phases of buildings, yet the finds assemblage from the excavation was voluminous. A characteristic feature of the Viking Age artefacts comprised semi-circular vessels

FIGURE 2.19 *The longhouses of Trelleborg marked out on the surface. ©J. Nørgaard.*

made of soapstone from Norwegian quarries. A thorough publication of the excavations is in press.

Fyrkat was investigated in 1950-63 and the remains of the fortress and the cemetery with its 30 graves are well described (Roesdahl 1977). The finds inventory indicates that men, women and children lived at the fortress in a prosperous environment. Soapstone show contacts with Norway and jewellery of various kinds demonstrate contacts with the Baltic area. Indications of the presence of blacksmiths and goldsmiths were found both in the fortress and in the cemetery. The distribution of the object types within the fortress suggests that the houses in the blocks functioned as workshops, stores and dwellings. The limited evidence for weapons suggests that combat did not take place in the fortress.

Trelleborg was investigated in 1934-42 and the remains of the fortress and the cemetery, with its 135 graves, are well described (Nørlund 1948). Remains of Neolithic and Early Iron Age structures at the site do not have an impact on the interpretation of the Viking Age finds. The finds inventory from the fortress indicates that men and women lived in the houses within the circular rampart. There were almost no finds from the houses in the ward. Soapstone vessels show contact with Norway, while jewellery and fittings demonstrate contacts with Birka, the Baltic area and Hedeby. Blacksmith's tools were also found. The recovery of 19 arrowheads from outside the ramparts and the gateways indicates that combat took place. During the small-scale investigation carried out in 2007-09 outside the rampart, wooden objects were found, including a painted, circular shield with an origin in Western Norway. Grave goods were sparse but one of the male graves had the fine furnishings of a warrior and one female grave had a relatively rich content of jewellery. The graves included three mass graves containing 20 bodies, apparently of men between the ages of 20 and 35. Isotope analyses of parts of the skeletal material reveal that most of those buried originated either from Norway or the Slav area (Price et al. 2011).

The finds from the Trelleborg fortresses are rather sparse. The lack of evidence for repair and replacement of the buildings reveals that the functional period of the fortresses was rather short and the lack of finds further confirms this conclusion. Furthermore, it seems that fighting only took place at Trelleborg. There are traces after fire at Fyrkat, but all three fortresses appear to have been abandoned in good order relatively soon after construction. In spite of the limited number of finds from the Trelleborg fortresses, the inventory clearly shows that they had widespread contacts both nationally and internationally.

CONCLUDING REMARKS

With their date of AD 980, the Trelleborg fortresses have traditionally been linked with Harald Bluetooth's efforts to unify and Christianise the Danish kingdom, as proclaimed on "King Harald's Stone" at Jelling. Another interpretation links the fortresses with the conquest of England and, accordingly, Harald Bluetooth's son, Svend Forkbeard. Whatever the details, the fortresses must be seen as a monumental and military manifestation of the central power of the Late Viking Age. The Trelleborg fortresses are considered to be prestige building projects. They were constructed as part of a general militarisation whereby the kingdom manifested itself through visible armament and subsequent maintenance of power. This is also expressed in the palisade in Jelling, Danevirke and the fortification of Hedeby. Both the Jelling complex and the Trelleborg fortresses are characterised by a very high building density and an extensive finds assemblage in the same manner as other high-status sites.

HEDEBY AND DANEVIRKE (4)

The component part of Hedeby and Danevirke (4) is located in the Districts of Schleswig-Flensburg and Rendsburg-Eckernförde in the State of Schleswig-Holstein, Federal Republic of Germany, close to the towns of Schleswig and Eckernförde. It consists of 22 separate archaeological sites which constitute the defensive system of Danevirke and the urban settlement of Hedeby.

Hedeby and Danevirke (4) form a spatially-linked complex of defensive works, settlements, cemeteries and a port. The most important parts of Danevirke extend across the Schleswig Isthmus, a bottleneck on the Jutland Peninsula which, in effect, served as a natural traffic barrier. From the mainland of Central Europe, the Jutland Peninsula extends northwards for 400 km, and its width ranges from 70 to 90 km. This long, extended peninsula forms the natural connection between the Scandinavian world, with its maritime character, and the European mainland. On the Schleswig Isthmus, north-south passage was constricted to a width of about 15 km in the Viking period. Schlei fjord extends about 42 km inland from the Baltic Sea while in the west there are bogs, islands and the mud flats of the Wadden Sea as well as expansive boggy lowlands along rivers. The defensive system extends beyond the Schleswig Isthmus and includes parts of Schlei fjord as well as the transition to the Schwansen region south of the fjord. The main period of use of the Danevirke probably extended from the 7th century to the late 12th century AD. Parts were reused during the 19th and 20th centuries. Hedeby (4.12) lies protected on the western shore of Haddeby Noor, a marginal bay in the innermost part of Schlei fjord. The site was permanently inhabited from the late 8th to the late 11th century.

EXTENT OF THE COMPONENT PART

The nominated component part comprises all known sections of Danevirke as well as all sites belonging to the complex of Hedeby. The boundaries of the nominated component part are drawn around the known or presumably preserved archaeological remains.

The Danevirke consists of the sections of the Crooked Wall, the Main Wall, the North Wall, the Connection Wall, the Kovirke, the Offshore Work and the East Wall, thereby including all archaeologically verified ramparts, walls, ditches and wooden structures. Large parts, 26 km in all, of the preserved structures are still visible as pronounced embankments or low ridges. Parts of some sections, especially the western end of the Crooked Wall, are only known from archaeological surveys (see Figure 2.20).

Hedeby (4.12) consists of the settlement area and harbour within the Semi-circular Town Wall, a hillfort on a moraine ridge to the north and a large cemetery as well as further settlement to the south of the Semi-circular Wall (see Figure 2.21). At present, the Semi-circular Wall is the most visible feature in the landscape. This wall also forms part of the defensive system of Danevirke. The traces of the settlement, the cemeteries and the harbour are largely invisible. The water level has risen about 0.8 m since the Viking Age. This has created a context in which much of

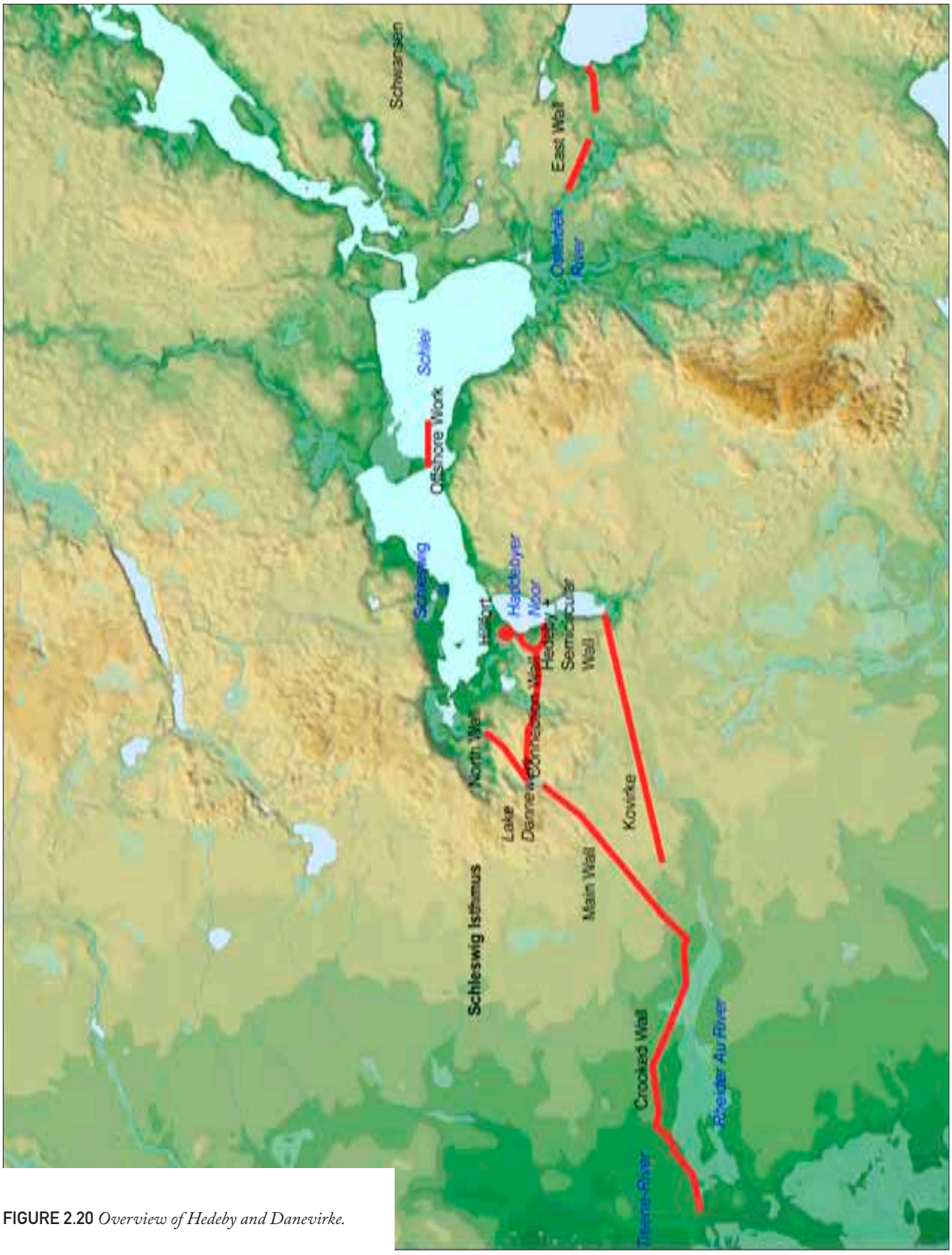


FIGURE 2.20 *Overview of Hedeby and Danevirke.*

the former settlement is now preserved under water (port area) or in waterlogged soil (settlement). In front of the town wall, within the former harbour area, the presence of several sunken ships has been established.

The buffer zone was designed to surround all archaeological sites of the component part of Hedeby and Danevirke as a means of safeguarding the integrity of their immediate setting and to connect most of their constituent sites. An additional so-called "wider setting" was set up to link all the individual sites of the nominated component part so as to protect other aspects of the setting, especially the visual integrity and integrity of the historic landscape of the monuments. The borders of the "wider setting" extend up to 5 km around the whole nominated component part.

LANDSCAPE AND GEOGRAPHY

The landscape in which Danevirke and Hedeby is situated varies from hilly moraine in the eastern part through sandy plains to wetlands along rivers in the western part. Today the landscape is characterised by a combination of cultivated fields separated by hedgerows, smaller pockets

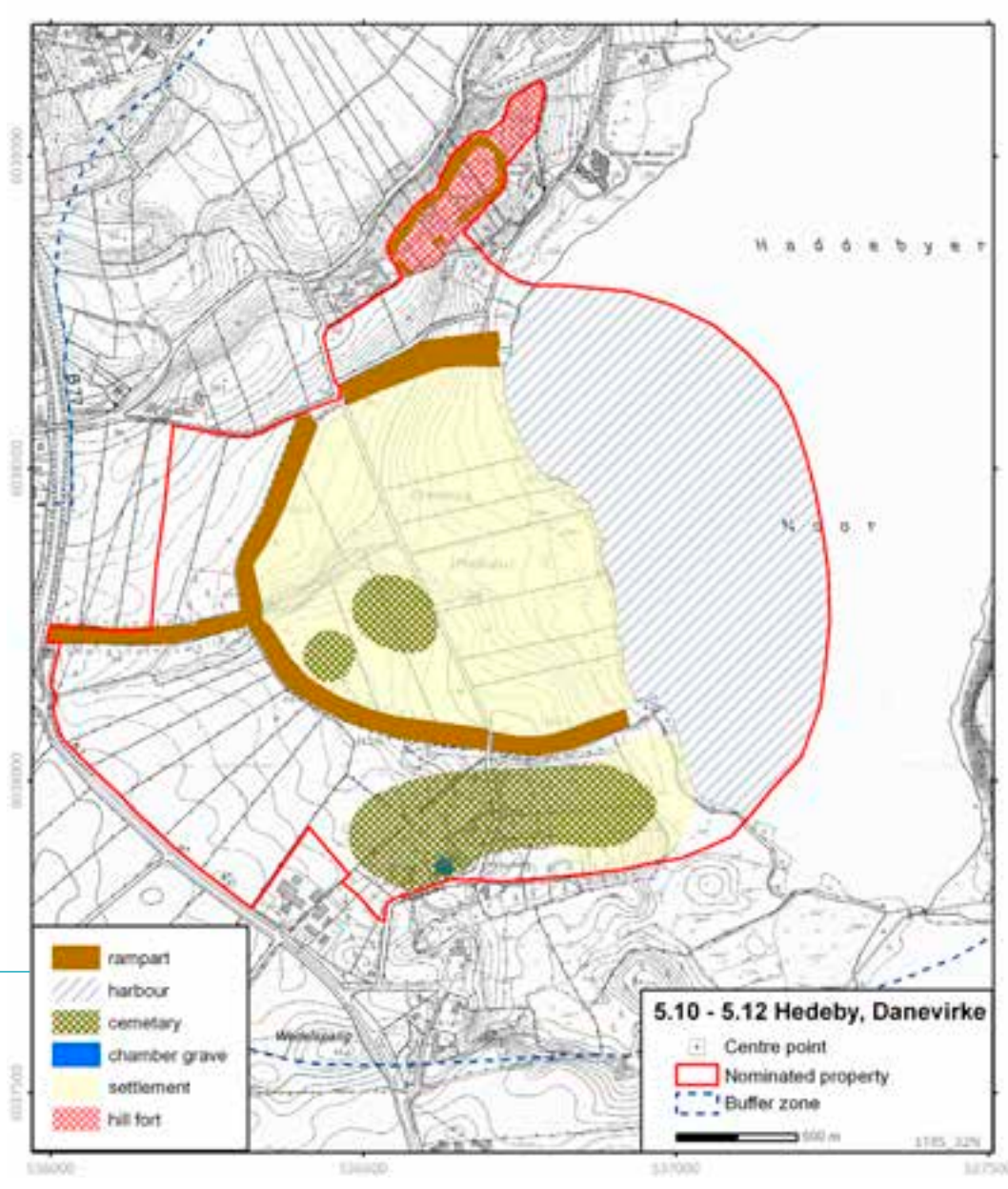


FIGURE 2.21
Overview of Hedeby.

FIGURE 2.22 *Arial photograph of Hedeby and the Semi-circular Wall.* ©*Archäologisches Landesamt Schleswig-Holstein.*

of woodland and several smaller villages and single farmsteads. Opposite Hedeby, north of Schlei fjord, lies the city of Schleswig. The town of Eckernförde marks the opposite side of the former Baltic Sea inlet where Danevirke ends in the east.

DESCRIPTION OF THE REMAINS

The urban settlement of Hedeby (4.12) is connected to Danevirke by the semi-circular earthen rampart functioning as the "town wall". This semi-circular wall around Hedeby is approximately 1300 m in length and reaches up to 10-11 m in height in its southern part. The total area within the wall was inhabited and the settlement consisted of a dense and regular network of paths and roads which divides the interior into plots. To the southwest of the settlement there is a large Viking Age cemetery. It is presumed that the port facilities were situated along the entire strip of shoreline enclosed by both ends of the Semi-circular Wall and in front of the settlement area.

Included in the nominated component part are also archaeological remains of a further settlement and cemetery situated outside the southwestern part of the Semi-circular Wall, referred to as the Southern Settlement and Southern Cemetery. Overlooking the northern parts of the Hedeby settlement is the hillfort of Hochburg. Hochburg is a rectangular walled enclosure on the crest of a moraine formation some 25 m high. The rampart, which is about 1 m in height, encloses an area measuring 240 x 60-80 m. In the interior is a barrow cemetery with cremation burials. At the southern foot of Hochburg, to the north of the Semi-circular Wall, coffin graves have been discovered. All of these structures also form part of the nominated component. The earliest scientific date for Hedeby lies in the mid 8th century and is from the southern settlement. The most recent evidence of settlement activities extends into the late 11th century and is from within the Semi-circular Wall, thereby confirming that the site was constantly occupied for about 300 years.

The defensive system of Danevirke (4.1-4.22) consists of

FIGURE 2.23 *The Main Wall.* ©*Rainer Heidenreich, Archäologisches Landesamt Schleswig-Holstein.*

several segments. They combine natural obstacles, such as open water and peaty lowlands, with man-made structures, such as earthen ramparts, palisades, ditches, stone and brick walls and an offshore work in the water. The methods employed in constructing Danevirke consciously integrated features in the landscape such as fjords, rivers valleys, lakes and wetlands. These natural features are not part of the nominated component but are protected by the buffer zone and the wider setting. In between these natural barriers, the ramparts followed the shortest distance requiring the minimum of effort to gain the maximum protection.

In the west, Danevirke begins as the Crooked Wall (4.1-4.3) located on a low old moraine ridge on the river Treene. The Danevirke partly crosses the adjoining boggy flood plain of the river Rheider Au eastwards and then runs for 7.5 km along the flood plain and the adjoining sandur to the north. To the northeast, the wall leaves the edge of the flood plain and heads, as the Main Wall (4.3-4.5), in a straight line for 5.5 km right across the sandur and young moraine to lake Dannewerk. The North Wall (4.6-4.7) extends over a length of about 1.5 km from the eastern edge of lake Dannewerk as far as the Schlei lowlands. Here, Danevirke is intersected by a motorway route. The Connection Wall (4.6, 4.9-4.11) extends from the starting point of the North Wall at lake Dannewerk to the Semi-circular Wall of Hedeby (4.12). It takes its course to the east in a straight line from the Semi-circular Wall as far as Busdorf Valley. Subsequently the wall runs to the present-day motorway in a less visible form. A double wall and a curved wall lying to the north (the so-called Arched Wall) lie between the motorway and lake Dannewerk. They are barely noticeable in the terrain. South of the Main Wall and the Connection Wall, the so-called Kovirke (4.13-4.18) runs nearly 6.5 km in a straight line over the sandur and young moraines so as to join up with Selker Noor. The Offshore Work (4.19) extends over a length of almost 800 m, from the tip of a peninsula out into Schlei fjord eastwards to a shallow bank which at the time of construction no doubt lay above water as an island. This connection is today interrupted by a modern ship-

FIGURE 2.24 *Arial photograph of the Crooked Wall looking west. In the foreground a fortification from 1864.*
©Michael Lang, Archäologisches Landesamt Schleswig-Holstein.

ping channel through the fjord. The East Wall (4.20-4.22) stretches from Osterbek river, which leads into the Schlei, to a low valley south of the village of Kochendorf and from there as far as Windeby Noor, a Baltic Sea bay.

Built in different phases and sections and subject to varying deterioration over time, the rampart structures of Danevirke differ greatly in height and width. As a massive earthen wall, the Main Wall forms the centre of the Danevirke system and contains most of the building phases of Danevirke, the youngest being the Danish Army parapets, defensive ditches and bastions from the years 1861-63 and a German anti-tank ditch from 1945. The earliest ramparts were built prior to the 8th century AD and consecutive Viking Age phases and sections have revealed dates extending into the late 12th century AD, when the brick wall was constructed. The system consists of an outer bank, a 2.5 m deep and 15 m wide ditch and a rampart which is 25-33 m wide and 6-7 m high. Over long distances the latter is faced with a fieldstone wall and a brick wall of different date. The remains of the brick wall are visible over a length of 80 m. The easternmost point is formed by the Thyraburg mound at lake Dannewerk.

DESCRIPTION OF THE FINDS

In Hedeby (4.12), craft products such as glass, jewellery, weapons and tools, in addition to many organic materials such as textiles and leather, are preserved. Furthermore, timber from houses, pathways and fences is well-preserved. Large quantities of raw materials, such as amber, and metals such as lead, tin, brass, silver and gold were recovered. There are soapstone vessels and whetstones imported from Norway. Other finds demonstrating cultural contacts came mostly from burials. These included bronze bowls from Russia and the British Isles, Frankish glass objects, Islamic coins, a seal from Byzantium, quernstones and ceramics from the Rhineland. The jewellery encompasses typical Viking Age objects such as animal-style brooches and pendants. Iron shackles indicate a trade in slaves. Notable in the context of this nomination are quernstones, recently identified as originating from Hyllestad (7) and objects such as oval brooches and moulds decorated in the Borre (6.1) and Oseberg (6.2) styles. Beside numerous coins of Frankish and Islamic origin there were also numerous coins minted in Hedeby. Many objects indicate their owner's Christian background or Christian religious practice in general, for example a large bronze bell found in Haddeby Noor. Furthermore, numerous substructures from port facilities have been documented as well as four Viking Age shipwrecks, one of which – a royal longboat – was salvaged. House timbers in their thousands are preserved in the settlement layers of Hedeby. In the Southern Settlement there are numerous sunken-floored dwellings, in addition to several post-built structures. Outside the Southern Cemetery, a chamber grave containing the burials of a princely individual and two attendants was excavated.

Due to the nature of the construction as a mainly earthen embankment, only a few archaeological objects were found in excavations at Danevirke, mainly tools such as wooden shovels. However, substantial preserved remains of wooden structures were revealed. Particularly impressive is a row of over 150 m long intact caissons, employing

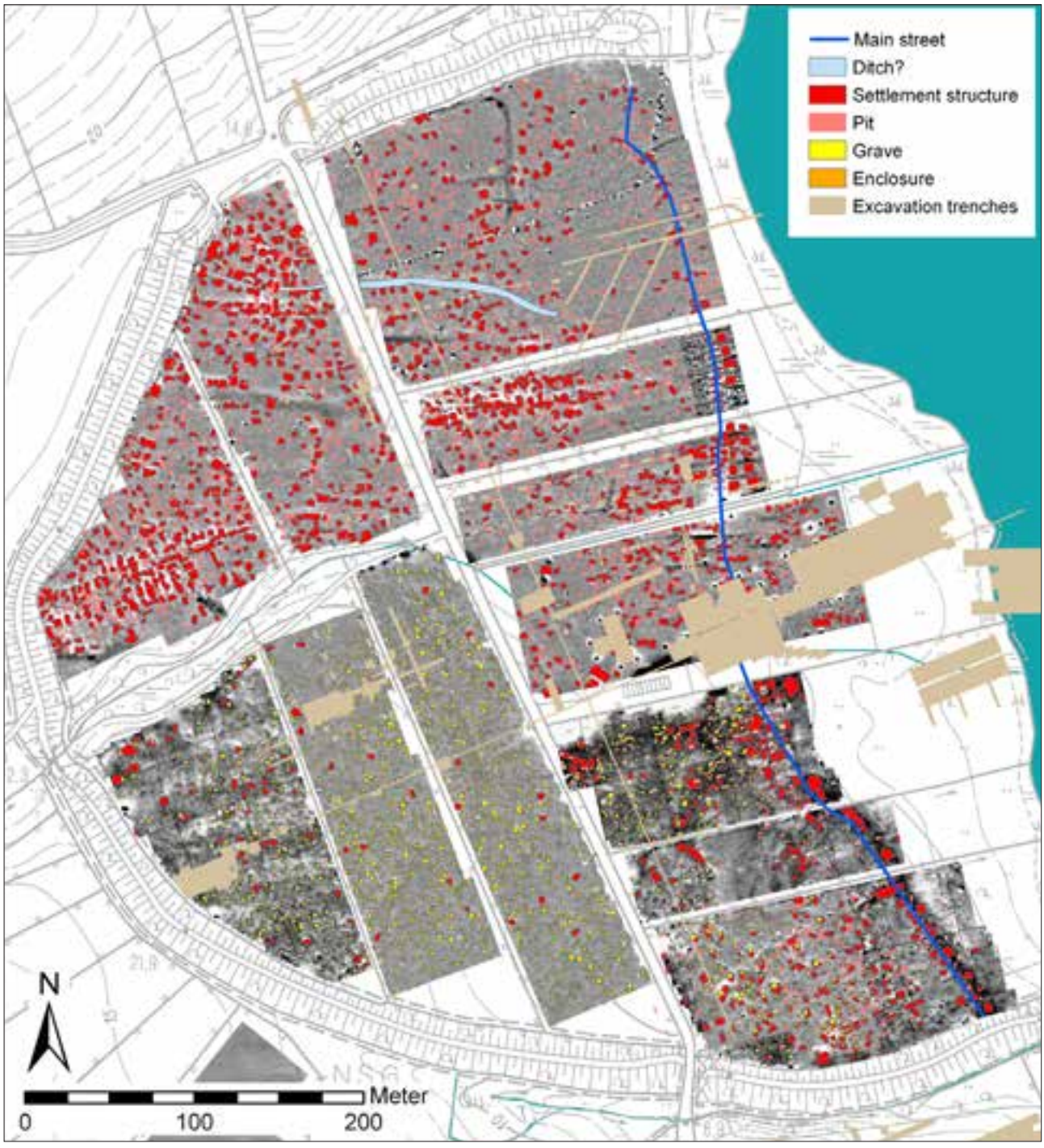


FIGURE 2.25 *Map of Hedeby showing the results of the geomagnetic surveys.*

FIGURE 2.26 *Find of press dies from the harbour at Hedeby, 10th century AD.* ©*Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf.*

a log construction with an edge length of about 4.5 m, the remains of which protrude some 0.5 m from the bed of Schlei fjord and constitute the core of the Offshore Work. To the north of this box construction there are two further rows of individual boxes, built using the log technique, at intervals of 95 and 80 m. An excavation at the opening of the Main Wall at the Heerweg (i.e. the Army Road) in 2010-13 revealed the existence of a long-suspected gateway structure.

CONCLUDING REMARKS

The trading settlement and harbour of Hedeby is physically connected to the system of linear defensive works of Danevirke (4). As the Schleswig Isthmus borders the North Atlantic to the west and the Baltic Sea to the east, the sites are also located close to the main waterways of the Viking Age. By means of Danevirke (4.1-4.11, 4.13-4.22), it was possible to mark and control the Schleswig Isthmus as a nodal point on important trading routes at the transition to the Danish settlement area and to the territory under the rule of Danish kings. Consequently, Danevirke functioned as the fortified border between the emerging Danish kingdom and the empires and peoples of the Continent. Together with the Trelleborg fortresses (3), Danevirke (4.1-4.11, 4.13-4.22) serves as an example of the employment of large work forces and engineering skills and of the strategic integration of natural assets into man-made defensive systems, which secured territorial, and thereby also political, power. In this respect, this defensive system is a material expression of the drive for power and the ability to control people and land during the phase of transition from petty kingdoms to larger states. The Danevirke developed over more than five centuries, through several building phases and defensive lines employing the latest military building techniques, including a massive stone wall, wooden constructions for wetland areas and one of the earliest examples of a brick wall in Northern Europe. Beginning well before the Vi-

king Age, and spanning the entire period, the construction reflects the rather evolutionary process of formation of larger kingdoms and territorial domains in Scandinavia, which reached its peak in the Viking Age.

Using the same natural assets as Danevirke, Hedeby (4.12) was one of the few, and also one of the most important, trans-regional trading centres in the Baltic region. This is demonstrated by large quantities of imports among the finds, as well as local products which are found in the archaeological record all over Northern Europe. Craft products and grave goods were often of high quality. As one of the most significant urban centres of its time, Hedeby played a decisive part in Scandinavia's exchanges with the European Continent. Hedeby (4.12) is a materialisation of the development of urban structures, documented by its preserved town layout and its archaeological remains of houses, workshops, harbour facilities and roads. Furthermore, it provides exceptional evidence for the mass production of craft products, for long-distance trade, for the co-habitation and communication between different peoples and for the syncretism between Christian and pagan beliefs during the Viking Age.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

The component part of the Grobiņa burials and settlements is located in the town of Grobiņa in western Latvia and consists of six separate archaeological sites: the burial grounds of Porāni (Pūrāni), Priediens, Atkalni, Smukumi, Grobiņa hillfort (Skabārža kalns) and Grobiņa Medieval castle. Accordingly, the component part consists of a series of burial sites, settlements and defensive structures dating from the 7th to the 13th century AD, with the main focus on remains from the 9th-11th century.

EXTENT OF THE COMPONENT PART

While located in the same town, the archaeological sites of Grobiņa are identified as six separate sites.

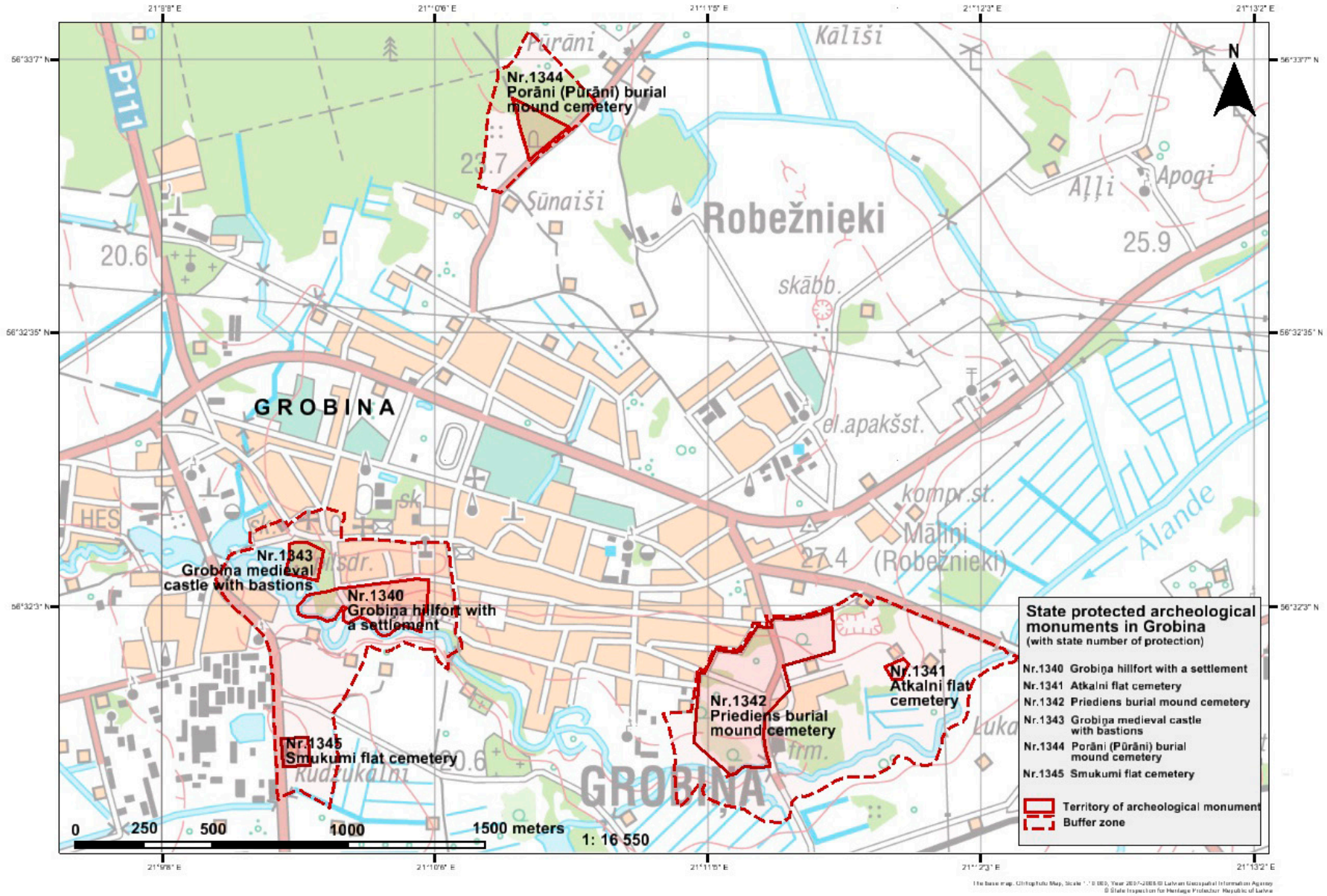
The nominated Porāni (Pūrāni) burial mound site (5.1) is located on the northern edge of the town centre of Grobiņa. The surrounding landscape of the Pūrāni burial ground has been transformed by economic activity. A gravel quarry is situated to the north of the burial ground, now a marshy area, overgrown by scrub. 20th century farm buildings are located at the northeast border of the Pūrāni burial ground. On the southwest side, the burial ground is bordered by a meadow, 20th century industrial farm walls and a forest, whereas the southeastern border consists of meadows and agricultural land. Porāni (Pūrāni) burial ground has to be seen in conjunction with the Priediens burial ground.

The territory of the Priediens burial mound site (5.4) is situated in the southeastern part of the town centre of Grobiņa, on the right bank of river Ālande. The burial ground is located between Saules street in the north and river Ālande in the south. Its western border follows Zviedru street and its eastern border reaches Zirgu street. The streets and modern buildings around the burial ground began to develop in the 1970s and the territory of the burial ground of Priediens is traversed by two roads and several pedestrian paths. As the site is located in close proximity to Atkalni, they share the same buffer zone.

The nominated Atkalni flat-grave burial site (5.5) is located in the southeastern part of the town centre of Grobiņa, on the high ground on the bank of the river Ālande. 20th century buildings are located on the northwest border of the Atkalni burial ground, but the other sides are bordered by drained meadows and agricultural land. As the site is located in close proximity to Priediens, they share the same buffer zone.

The nominated Smukumi flat-grave burial site (5.2) is situated in the southwestern part of the town centre of Grobiņa, on the low elevation near the Rudzukalni (Smukumi) farm. The surrounding landscape of the Smukumi burial ground has been altered by economic activity. 20th century industrial buildings are located along the western border of the Smukumi burial ground, whereas the remaining parts of the property are bordered by drained agricultural land. Located in close proximity to Grobiņa hillfort and Grobiņa castle, it shares a buffer zone with these two sites.

Grobiņa hillfort (5.6) and settlement is located in the western part of the town centre of Grobiņa. The hillfort is situated on an elevated peninsula formed by river Ālande. The plateau of the peninsula is flat and oval in shape – 80 m in length and 40-45 m in width. To the south and west, the hillfort is cut off by a millpond and to the north it is bordered by marshy valley. Its eastern border follows Parka street, which also serves as the western border of the settlement. The settlement is located at the eastern foot of the hillfort, between Saules street to the north and river Ālande to the south. The eastern border crosses an area covered by modern 20th century buildings, between Saules street and


Nr.1344
Porāni (Pūrāni) burial mound cemetery
Nr.1343
Grobiņa medieval castle with bastions
Nr.1340
Grobiņa hillfort with a settlement
Nr.1345
Smukumi flat cemetery
Nr.1342
Priediens burial mound cemetery
Nr.1341
Atkalni flat cemetery
GROBIŅA
Robežnieki
Pūrāni
Kālīši
Šūnaiši
Alļi
Apogi
Mālīni (Robežnieki)
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0 250 500 1000 1500 meters
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State protected archeological monuments in Grobina
(with state number of protection)
Nr.1340 Grobiņa hillfort with a settlement
Nr.1341 Atkalni flat cemetery
Nr.1342 Priediens burial mound cemetery
Nr.1343 Grobiņa medieval castle with bastions
Nr.1344 Porāni (Pūrāni) burial mound cemetery
Nr.1345 Smukumi flat cemetery
Territory of archeological monument
Buffer zone

FIGURE 2.28 *Porāni burial ground. ©Juris Urtāns, State Inspection for Heritage Protection.*

river Ālande. Located in close proximity to Grobiņa castle and Smukumi burial ground, Grobiņa hillfort and settlement share a buffer zone with these two sites.

Grobiņa Medieval castle with bastions (5.3) is located in the western part of the town centre, 200 m north of Grobiņa hillfort. The northern and eastern borders of the site are formed by the castle's fortification system, to the south the borders are marked by a millpond and the western side partly follows the fortification system and partly the millpond. Located in close proximity to the Grobiņa hillfort and the Smukumi burial ground, it shares a buffer zone with these two sites.

LANDSCAPE AND GEOGRAPHY

Grobiņa's position close to the Baltic Sea, along Ālande river, made it an area that was easily accessible by water. Furthermore, the rich soil meant the area was excellently suited for extensive agricultural activities which could sustain a growing population, not only of the local Curonians, but also the new Scandinavian settlers.

The present burial grounds occupy a large territory on the outskirts of Grobiņa and form a natural background for Grobiņa as urban settlement. The burials are situated in the oldest part of the town, where the hillfort and

FIGURE 2.27 *On left page: Overview of Grobiņa burials and settlements with boundaries and buffer zones for the state-protected cultural monuments ©State Inspection for Heritage Protection.*

FIGURE 2.29 *Priediens burial ground.* ©*Juris Urtāns, State Inspection for Heritage Protection.*

settlement on the banks of Ālande river are also located. The territory of the settlement is partly covered by the buildings of Grobiņa, but other parts are accessible for archaeological excavation and other investigations. The open agricultural landscape is partly intact, even if the burial grounds of Pūrāni and Priediens are partly covered by trees and scrub and no longer as open as during their time of construction. Furthermore, natural erosion and continuous agricultural activities have contributed to a levelling of the surface of the burial grounds of Priediens and Atkalni.

DESCRIPTION OF THE REMAINS

The Porāni (Pūrāni) burial ground consists of about 30 burial mounds ranging from 5.7-8.3 m in diameter and 0.3-0.6 m in height. Visual signs of the burial mounds have largely been lost and at the present they are marked by slight elevations. Excavations have revealed that the burial mounds are cremation graves in which the ashes of the deceased, accompanied by grave goods, were laid to rest under the central section of the mound. The finds and the style of the burials are typical of Scandinavian burial grounds of the time. Based on the finds typology of the artefacts accompanying the deceased, the burial ground's period of use is dated to the 7th – 9th century.

Consisting of some hundred burial mounds, the Priediens burial ground is the largest of the Scandinavian burial grounds in Grobiņa. At present most of these are visible as slight elevations on the ground but a few mounds are more conspicuous. At the end of the burial ground's period of use, i.e. the 9th century AD, there were around 2000 burial mounds of different sizes, albeit commonly ranging from 7 to 10 m in diameter and about 0.5 m in height (Nerman 1930). As at the Porāni (Pūrāni) burial

FIGURE 2.30 *Grobiņa hillfort (Skabārža kalns).* ©*Juris Urtāns, State Inspection for Heritage Protection.*

ground, excavations have revealed that the burial mounds are cremation graves containing the ashes of the deceased, buried with grave goods, laid to rest under the central section of the mound. Located at the northeastern part of the Porāni (Pūrāni) burial ground there is a section containing Curonian flat-grave burials, comprising a combination of inhumation (skeleton) and cremation graves. Whereas the flat-grave burials are dated to the 2nd – 8th century AD, the burial mounds date from the 7th – 9th century, indicating an overlap in time between the local Curonian and regional overseas Scandinavian grave customs. The graves have been dated stylistically on the basis of artefact typologies. This analysis indicates that both Scandinavian settlers and local Curonians were buried at Priediens. The Atkalni burial ground is flat and shows no visible signs of the burials. Excavations uncovered seven cremation graves containing artefacts dating from the 10th – 13th century.

The Smukumi burial ground is flat and shows no visible signs of the burials. Excavations have shown that the deceased were cremated and their ashes buried together with fire-damaged grave goods. The deceased and their grave goods were buried in 0.1-0.35 m deep pits, evident as darker, round and oval structures, found to be exceptionally rich in charcoal and ash when excavated. At least 117 burials have been unearthed in the course of various excavations. This is a typical Scandinavian cremation burial ground of the 7th – 9th century AD, and it is an example which indicates that Grobiņa was inhabited by Scandinavians originating from different regions.

Close to the Smukumi burial ground, the remains of a 20 ha settlement are located next to the Grobiņa hillfort (Skabārža kalns). The slopes of the hillfort have been artificially steepened and the plateau has been artificially levelled, indicating the man-made nature of the construc-

FIGURE 2.31 *Grobiņa Medieval castle (in front) and Grobiņa hillfort.* ©*Juris Urtāns, State Inspection for Heritage Protection.*

tion. On the eastern side, the plateau is delimited by a c. 30 m wide and 2 m high flat-topped rampart. The type and the size of rampart are uncharacteristic for Latvian hillforts. The rampart occupies about a third of the upper part of the hillfort. East of the rampart are the remains of a silted-up moat. The hillfort plateau is 65-70 m long and 40-45 m wide and lies 4.5-5 m above the surface of the millpond. In the course of the archaeological excavation of an area of 24 m^2, an occupation deposit 1.2 m in thickness was demonstrated. Later auger surveys showed that the thickness of the cultural occupation deposits on the hillfort plateau is greater than previously anticipated. According to the archaeological record, the cultural occupation extended from the 5th to the 13th century AD.

FIGURE 2.32 *Grobiņa picture stone from Priediens burial ground.* ©*State Inspection for Heritage Protection.*

FIGURE 2.33 *Examples of Norse finds from Grobiņa in the Smukumi burials.* ©*National History Museum of Latvia.*

The ruins of Grobiņa stone castle (40 x 60 m) with bastions are situated to the northwest of Grobiņa hillfort and today they form a visually unified ensemble. The castle was built in the 13th century by the Livonian Order, but the fortifications have been repeatedly repaired and modernised. Consequently, it is not directly related to the Scandinavian archaeological heritage. Nonetheless, the Medieval castle was built in immediate vicinity of the Grobiņa hillfort and between the two monuments are cultural layers relating to the Scandinavian settlement, indicating the continuity of the two constructions. Furthermore, researchers believe (although it has not yet been proved) that the Medieval castle was built on the site of a Scandinavian settlement.

DESCRIPTION OF THE FINDS

The household objects found in the graves (tools, weapons, ornaments such necklaces, bracelets, penannular brooches and finger rings, ceramics and small items such as the remains of drinking horns) reflect the traditions of the Curonians. The assemblages of objects found during excavations of the Scandinavian cemeteries are very rich and include single- and double-edged swords, spearheads, helmets, belts, brooches, neck rings, suspension plates, chains, bracelets, necklaces, combs, keys and pottery (Nerman 1958). A picture stone of the type commonly found in Eastern Scandinavia (Gotland) was found in a burial mound in Grobiņa in 1987. It has been dated to the 7th century AD and is the only such stone to have been found outside Scandinavia.

The cultural occupation deposits at the Grobiņa hillfort yielded stones derived from demolished ovens, charcoal, animal bones and pottery dating from various archaeological periods, clay daub, iron slag and artefacts such as a bronze horseshoe brooch, metal mounts, a disc-shaped stone spindle whorl, a metal arrowhead, a needle and nails. Furthermore, the 0.6 m thick cultural deposits discovered at the settlement adjacent to the hillfort have yielded small potsherds, burnt stones and fragments of the clay plaster.

CONCLUDING REMARKS

The extensive burial grounds of Priediens, Smukumi, Porāni (Pūrāni) and Atkalni, which were in use in the 7th – 9th century, indicate that Grobiņa was densely populated during this period. It is therefore reasonable to view Grobiņa as one of the most important early urban settlements in the Western Baltic region. Seen in this light, Grobiņa has been interpreted as the historic settlement of Seeburg, mentioned by the Archbishop of Bremen in *Vita Anscaarii*.

Furthermore, the physical appearance of the burial mounds, combined with the practice of burying the cremated deceased with grave goods, clearly bears a resemblance to the funerary practices of Scandinavia at that time. The continuous presence of Scandinavian burials from the 7th – 9th century AD also reveals the development of a long-lasting relationship between the local Curonians and the Scandinavian settlers. The longevity of the burial grounds makes it reasonable to argue that the Viking presence was not the result of a single military campaign, but rather a series of smaller migrations quite possibly initiated by the desire to obtain agricultural land.

Comprising a combination of burial mounds and flat graves, the four Grobiņa burial grounds provide an insight into how the Scandinavian settlers, on the one hand, retained their own funerary practices when settling overseas, and on the other, how these funerary practices also indicate that the settlers adopted traditions from, and were influenced by, the local community. This conclusion is further supported by the fact that the Scandinavian burial grounds are situated next to the monuments of the local Curonians, demonstrating that the two groups interacted. It is also possible to conclude from the burial grounds that at least some of the local Curonians remained in the region after the arrival of the immigrants: Curonian burials from the Early Iron Age are continued, forming a unified complex with burials of later periods. The graves also show reciprocal influences, with Baltic artefacts being included in the Scandinavian graves. Accordingly, these burial grounds bear clear witness to processes which can best be described as resulting in cultural hybridity.

THE VESTFOLD SHIP BURIALS (6)

The component part of the Vestfold ship burials is located in the county of Vestfold in Norway and consists of three separate archaeological sites: Gokstad (6.3), a burial mound in the municipality of Sandefjord, Oseberg (6.2), a burial mound in the municipality of Tønsberg, and Borre (6.1), burial mounds in the municipality of Horten. As the name of the component part indicates, all three of these archaeological sites contain ship burials; the sites date from c. AD 600-1000.

EXTENT OF THE COMPONENT PART

As the component part includes three separate sites in different parts of the county of Vestfold, they each have their own borders.

The majority of the nominated site of Borre consists of the protected area known as Borre Park. Towards the south, the boundary follows the narrow road Steinbrygga, whereas the northern boundary follows the border of the protected area of Borre Park. The western boundary passes Midgard Historical Centre, Borre rectory and the Medieval church of Borre and its graveyard, while the fjord forms a natural boundary to the east. The buffer zone is marked out by a combination of natural and urban features; towards the east its border is the sea and towards the west its border follows the thoroughfare of Raet, along national road no. 319, whereas its north-south boundaries are marked by the urban sprawl of Horten in the north and Åsgårdstrand in the south (see Figure 2.39).

The core of the nominated site of Oseberg consists of the mound itself and the small fenced-off area of parkland surrounding the mound. The remaining area is characterised by an open agricultural landscape only divided by a stream flowing southwards along the valley floor. The borders of the buffer zone have been created on the basis of known features of the historic landscape. To the north and south, the boundary is drawn based on the now lost mounds at Rom in the north and Basberg in the south. To the east, the boundary is marked by the emerging el-

FIGURE 2.34 *Today, the Gokstad mound lies just over 1 km from the sea, but in Viking times the shoreline crossed the field in front of the office building to the right of the photo. There is a Viking Age beach settlement in the same field which has been partly excavated. Lower Gokstad, to the left, is one of several farms that surround the Gokstad mound. The nominated area covers most of the cultivated ground on the picture, while the proposed buffer zone includes the farms and part of the forest-covered hill to the left.* ©*Arve Kjersheim, Directorate of Cultural Heritage, 2011.*

evation of the hills of Oseberg and Hinnaland, whereas the western boundary follows the road Robergveien and to the northwest the border follows the natural ridgeline (see Figure 2.41).

The core of the nominated site of Gokstad consists of the mound itself and the small area of fenced-off parkland surrounding the mound. The remaining area is primarily made up of the open agricultural landscape of the Gokstad plain. Included in the nominated site of Gokstad are a burial ground consisting of smaller boat burials and a

FIGURE 2.35 *Slagendalen is open and wide, and extends down to the sea about 3.5 km away. The ship was dragged over land from the sea to the burial site. The property is delineated by the road crossing the middle of the photograph, while the proposed buffer zone continues towards the farms in the distance on the left of the photo.* ©*Arve Kjersheim, Directorate of Cultural Heritage, 2011*

FIGURE 2.36 *The Borre field lies in open woodland extending down to the sea. The property covers the cultivated ground just behind the wood. To the left it is just possible to glimpse Borre church, dating from c. 1150, and Borre rectory. This marks the inland boundary of the proposed buffer zone. This zone also covers the wood between the property and the town of Horten to the right.*

settlement site located adjacent to the Viking Age shoreline, southeast of the Gokstad mound. The south-southeast border follows the Viking Age shoreline, whereas the west and northwest borders follow the road Råstadveien. Towards the north-northeast, the boundary follows the foot of Flesbergåsen (Flesberg hill). The south-southeast border of the buffer zone coincides with the nominated site itself, following the Viking Age shoreline. Similarly, the north-northwestern edge of the buffer zone follows the road Råstadveien and the edge of the urban sprawl. Extending somewhat to the north-northeast, the buffer zone follows the ridgeline of the hills Gjekstadåsen and Frebergåsen (see Figure 2.42).

LANDSCAPE AND GEOGRAPHY

The nominated archaeological sites are situated in the eastern, coastal region of the county of Vestfold. Furthermore, they are all located between the sea and one of the striking natural features of the coastal region: The end moraine, known as Raet (the Ridge). Raet crosses Oslo fjord from Jeløya in the county of Østfold, before emerging at Horten in Vestfold. Within Vestfold, the ridge runs across the landscape, from Horten in the north to the pebbly beach of Mølen in the south, where it dips into the seabed. While important from a geo-evolutional point of view, Raet has also heavily impacted the cultural landscape of the county, serving as a thoroughfare connecting the woodlands and agricultural areas of the west with coastal regions to the east. Consequently, the three nominated sites were strategically located between the county's two most central, prehistoric routes of communication: Oslo fjord and Raet. These general landscape features are still present and frame the sites.

The landscape surrounding the Gokstad mound today is at once both similar and different to the time when the mound was constructed. The Gokstad mound's position on the open agricultural plain makes it stand out as the dominant feature in the landscape. At present, however, the mound's link to the sea is less striking than at the time of its construction as the shoreline was higher in the Viking Age. When constructed, the mound lay approximately 400 m from the end of Midtfjorden and was visually linked to the small settlement site and burial ground by the shore of the fjord.

FIGURE 2.37 *The Oseberg mound is enigmatic. Whereas other mounds were built on higher ground, at marked points in the terrain or close to farms, the Oseberg mound was isolated at the bottom of a valley. The Oseberg stream runs to the left of the mound. The Oseberg farms lie to the right.*

The Oseberg mound is situated at the lowest level of the valley of Slagendalen. As such, the monument is barely visible in the landscape and lacks close connections with other known historical sites. Positioned relatively far from the shoreline, and from the Viking Age road network, the mound stands in stark contrast to other known burial mounds of the region (Gansum 1995b, 1997).

Today, the nominated site of Borre comprises a combination of open grassland and light deciduous forest. Farmland dominates the landscape west of the site, whereas light deciduous forest covers Borre Park. Due to this deciduous forest, the burial mounds are currently invisible from the fjord. Research indicates, however, that at the time when the mounds were first constructed, the area was characterised by an open arable landscape, rendering the burial mounds clearly visible from the fjord (Myhre 1992b, 2003).

DESCRIPTION OF THE REMAINS

All three sites contain large burial mounds, commonly referred to as ship burials. The mounds were constructed around a ship in which the deceased were laid to rest. The mounds themselves are large man-made structures of earth, stones, clay and wood. The sites of Gokstad and Osberg each contain a single ship burial. The former now measures about 41 x 59 m, is oval in shape and approximately 4.4 m high, whereas the latter is about 42 m in diameter and 5.25 m high.

The site of Borre is more complex, consisting of an entire burial ground. At present, a total of 51 burial constructions have been recorded within Borre Park itself and another two burial grounds and some single mounds have been found within the area of the buffer zone. While the corpus of currently known and documented burial mounds varies in size and shape, the landscape is dominated by seven large mounds ranging up to 6 m in height and 45 m in diameter. These mounds have foot ditches and can be dated to AD 600-950, based on their form and shape and the results of scientific dating methods (Gansum 2007).

All the large mounds at Borre, Gokstad and Oseberg bear witness to the activities of grave robbers, but many of the smaller mounds at Borre are probably intact. The partial excavations of the mounds have enabled these grave robberies to be dated dendrochronologically, by investigating the spades and stretchers associated with the Gokstad and

FIGURE 2.40 *Borre.* *©Arve Kjersheim, Directorate of Cultural Heritage, 2011.*

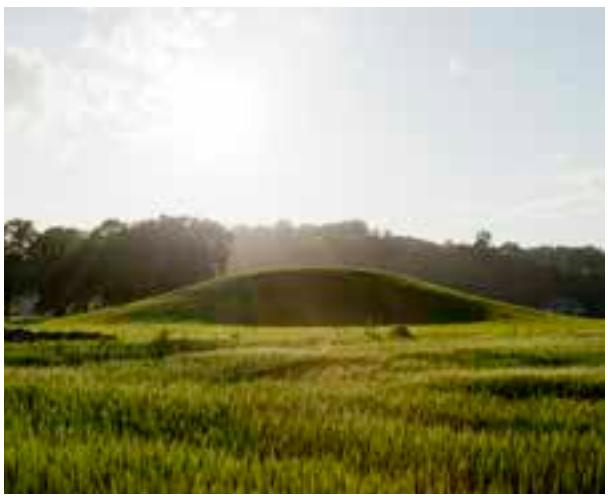


FIGURE 2.38 *The Gokstad mound.*
©Arve Kjersheim, Directorate of Cultural Heritage, 2011.

Oseberg mounds, and by ^{14}C dating in the case of Mound 7 at Borre (Bill & Daly, 2012; Brøgger 1945; Høeg 1990). The result of the former showed that the mounds at Gokstad and Oseberg were opened in the Late Viking Age, most likely during the second half of the 10th century AD (Bill & Daly 2012). The latter established that Mound 7 was broken into sometime between AD 870 and AD 1030. Furthermore, as the methods used in opening the mounds at Borre are similar to those employed at Gokstad and Oseberg, it is possible that the intrusions into the mounds at Borre, Gokstad and Oseberg were contemporaneous.

While the mounds constitute the focal points of these sites, they all include traces of other activities. Of particular importance are the unexcavated remains at Borre: In addition to the burial mounds, the nominated area also contains the remains of two large halls and an extremely large longhouse discovered by a recent geo-radar sur-

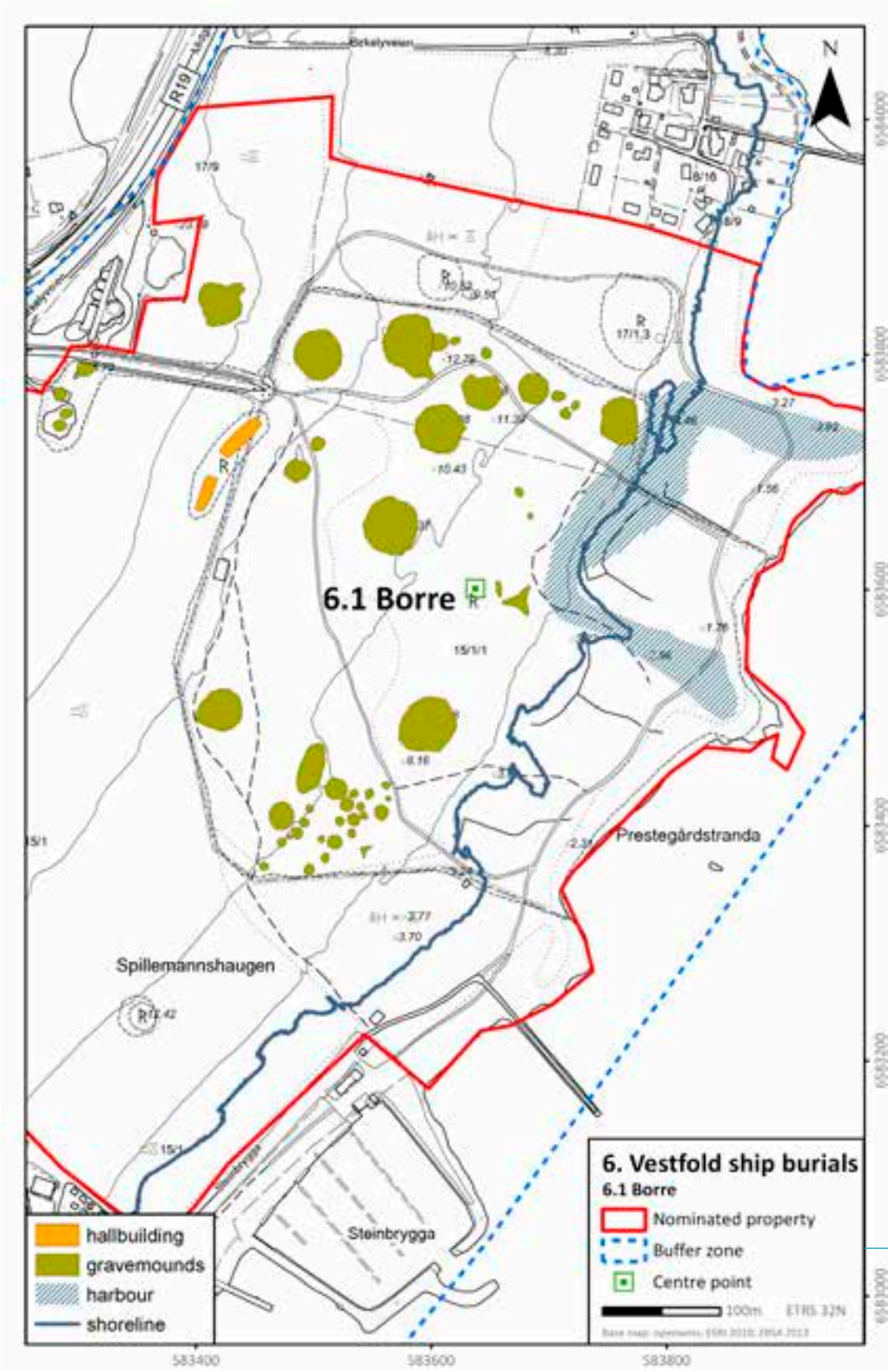


FIGURE 2.39
Overview of Borre, Vestfold ship burials.

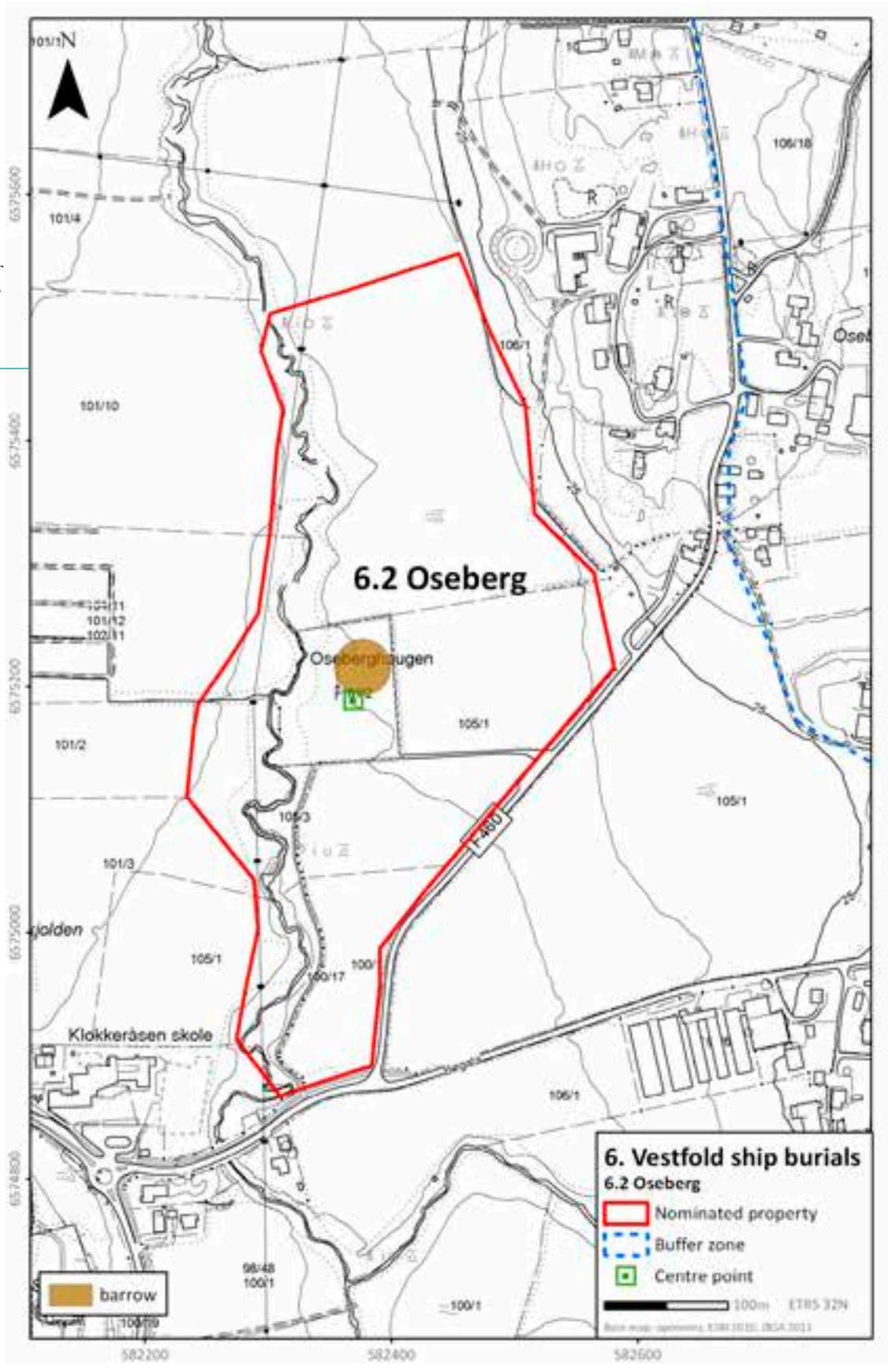


FIGURE 2.41
Overview of Oseberg, Vestfold ship burials.

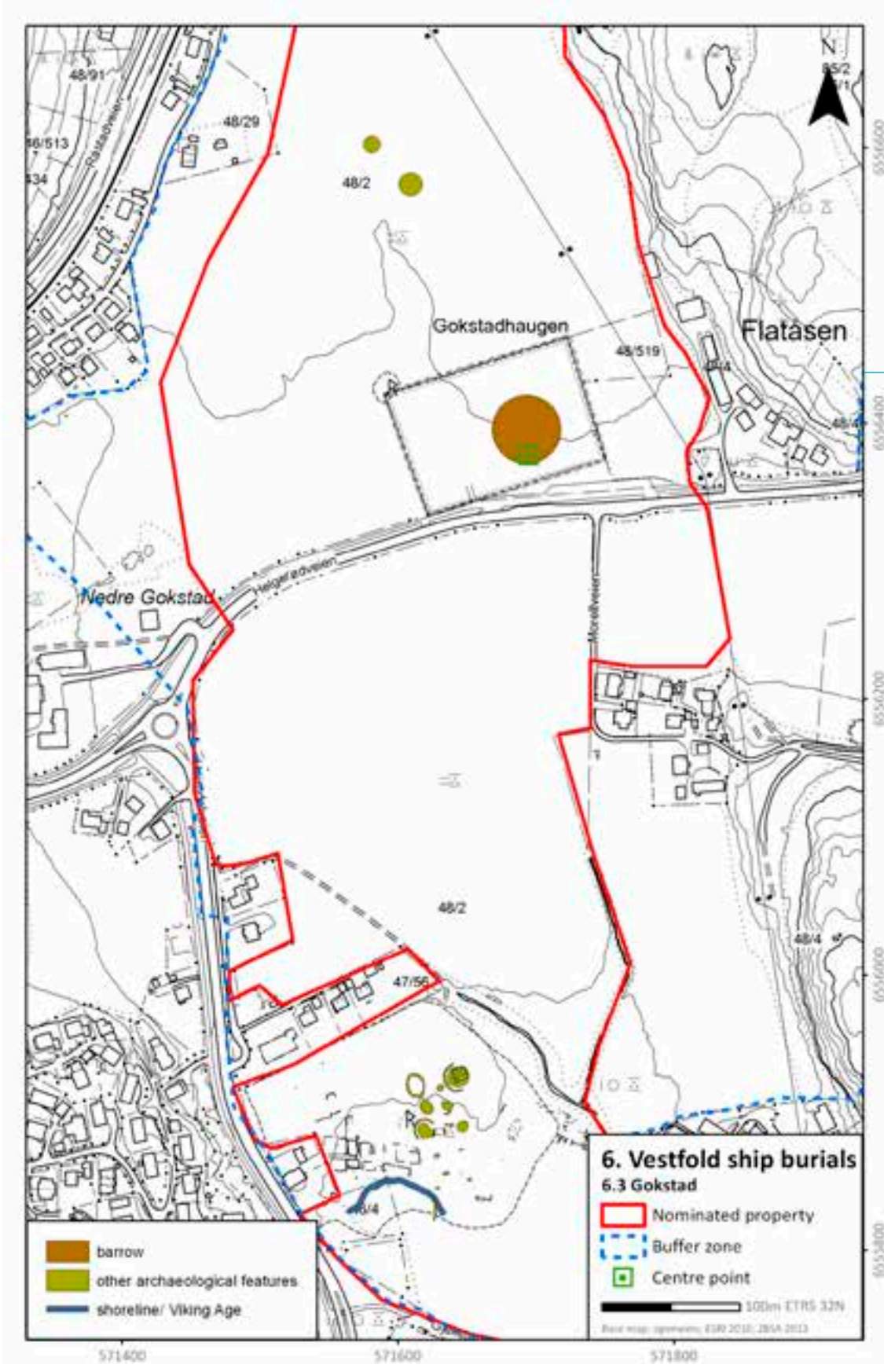


FIGURE 2.42
Overview of Gokstad, Vestfold ship burials.

FIGURE 2.43 *The Gokstad ship, Viking Ship Museum.*
©Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.

FIGURE 2.44 *Sledge from the Oseberg ship burial, the Viking Ship Museum.*
©Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.

vey. This survey revealed a series of postholes belonging to two hall buildings located just outside the borders of Borre Park. The northern hall was between 38 and 42 m long and 12 m wide. It is, however, difficult to determine its exact length as its northern end appears to be located under the stone wall of Borre Park. Located at a shallower depth, the structures of the southern hall are less visible than its northern counterpart. The southern hall building measures about 40 m in length and 10-12 m in width. The longhouse detected in 2013 is located in the field between Borre Park and the church and is 47 m long and 11-14 m wide. As such, it is one of the largest longhouses known from the Viking Age in Vestfold. Furthermore, Lidar scanning, combined with new research, has revealed that Borre complex also seems to include a man-made harbour.

DESCRIPTION OF THE FINDS

As noted above, all the sites contain ship burials consisting of the remains of Viking ships in which the deceased were laid to rest, together with a selection of grave goods:

Nicolay Nicolaysen's 1880 excavation of Gokstad, at the time commonly referred to as Kongshaugen (King's mound), uncovered one of the richest and best preserved ship burials from the Viking Age. The 23.5 m long "Gokstad ship", with its 16 pairs of oars and 32 circular shields, was buried in the mound together with three smaller boats. Dendrochronology has revealed that the ship was built between AD 885 and 892 and was placed in the mound between AD 895 and 903. Accompanying the deceased was a tent, six to seven beds, a sledge, seven dogs, twelve horses, two peacocks, a horseman's roundel, a hunting box, a pouch, a gaming board, kitchen utensils, tools such as augers, axes, fishhooks and spades and a wooden burial chamber. From the skeletal remains, it has been determined that the grave is that of a man, probably in his 40s, most likely killed in combat. The excavation also revealed that the mound was opened sometime between AD 939 and 1050, but the most likely date for the intrusion is at the beginning of this period (Bill & Daly 2012: 815).

Gabriel Gustafsson's 1904 excavation of Oseberg revealed one of the richest ship burials of the Viking Age. Buried in the mound was the 21.5 m long ornate, clinker-built "Oseberg ship" with its 15 pairs of oars. Dendrochronology has revealed that the ship was built between AD 815 and 820 and placed in the mound in AD 834. Accompanying the two deceased, both women, were colourful woven tapestries depicting scenes from Norse mythology

and battles, extremely ornate figureheads, rattles, sledges, a wagon and beds, as well as four dogs, an ox and 15 horses. The skeletal remains indicate that one of the deceased was around 80 years of age, whereas the other was around 50. From the excavation, it became clear that the mound had been opened on several occasions and some of the grave goods were discovered along the passageway used by those who opened the mound. The opening of the mound, documented by Gustafson in 1904, has been dated to the period AD 953-975 (Bill & Daly 2012: 815).

The Borre Mounds 1, 4, 6, 7, 10, 12, 13, 19, 21, 23, 27 and 29 have been subjected to various forms of archaeological fieldwork. Of these, it was primarily the now lost "Ship Mound" (Mound 1) that yielded rich finds. Nicolay Nicolaysen documented Mound 1 in 1852. The finds recovered included rivets from a long ship estimated to have measured 12 m in length. However, due to earlier destruction, it is estimated that the ship was between 15 and 19 m long. The ship was discovered with a rich selection of grave goods: A dog, three horses, harness, a saddle, three pair of stirrups, a wooden sledge, armoury, iron cauldrons and the remains of a glass goblet of Southern English origin. The cremated bones of the deceased were placed in one of the cauldrons located in the middle of the ship. Based on the style of ornamentation – known as the Borre style – of the harness, the grave was dated to around AD 900. The 1989 re-excavation of Mound 1 revealed further *ex situ* parts of glass cone beakers, rivets and cremated human bone. A high concentration of phosphate indicates the area has been settled long before the mound was built. In stark contrast to Mound 1, Nicolayson's trial excavation of Mound 4 revealed nothing more than charcoal dust.

In 1927, Bjørn Hougen and Eivind Engelstad surveyed and carried out trial excavations of some of the smaller mounds. One mound was dated to the Viking Age. Finally, as part of the Borre project in 1988-1992, the area was again surveyed and trial trenches were cut into two mounds; some burnt bone and charcoal was recorded, but no artefacts were recovered.

CONCLUDING REMARKS

The large ship burials of Borre, Oseberg and Gokstad have commonly been interpreted as the material means by which the elite legitimated their claims to power by displaying their links with their ancestors. As such, the construction of the mounds is often interpreted as a social practice which consolidated power (Bill & Daly 2012:

FIGURE 2.45 *Prow of the Oseberg ship.*
©Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.

FIGURE 2.46 *Horse collar from the Ship Mound at Borre.*
©Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.

809). Furthermore, even though the ship burials show similarities, they nonetheless permit a complex picture of Viking Age Vestfold to emerge. For centuries, Borre was a royal estate and the remains associated with the sites clearly indicate a variety of practices associated with the exercising of power in the Viking Age: Whereas the halls can be seen as early seats of governance, where gifts were exchanged and alliances built, the large and visually impressive monumental mounds represent evidence of long-established burial rituals and can be read as durable long-term markers of power. At the same time as the royal estate of Borre was flourishing, a trading centre and a burial ground were established at Gokstad, only 30 km to the south. Around AD 900, the Gokstad mound itself was raised to commemorate a petty king of Gokstad. At the same time as the Gokstad trading centre was in use, the urban settlement of Kaupang, located 15 km south of Gokstad, was thriving. The existence of a hall in close proximity to Kaupang indicates the presence of yet another chieftain. The Oseberg mound, located only 11 km south of Borre, is contemporary with the royal estate of Borre and with Kaupang, and lies in the prosperous region of Tønsberg, the trading centre of which is thought to date back to the AD 900s. Consequently, based on the archaeological data, it has been established that all the Vestfold ship burials were closely linked, indicating the clear presence of several rulers within a relatively limited geographical area. This is also reflected in the Frankish annals from AD 813 which describe how two Danish petty kings travelled to Vestfold – then the furthermost part of their realm – in order to deal with unrest between ruling chieftains and the people.

The 10th century intrusions into the larger ship burials add a layer of complexity to the history of the mounds and indeed to that of Vestfold as a whole. These intrusions took place shortly after the ship burials were constructed and have been interpreted as politically motivated actions and/or reflections of changes in religion and power relations between Vestfold and Denmark (Myhre 1992a, 1994; Gansum 1997). The recent dendrochronological analyses of the tools used to open up the graves date these actions to the time of Harald Bluetooth and the intrusions have therefore been seen in relation to his "efforts to establish himself and his linage as permanent rulers of Denmark" (Bill & Daly 2012: 821-822). Consequently, the abandonment of the petty kings of Borre, Gokstad and Kaupang can be seen as a result of the emerging unification of the state of Norway.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

The component part of the Hyllestad quernstone quarries is located in the county of Sogn og Fjordane in Norway and consists of three large quarry sites located within three different farms and with periods of use dating from the Viking Age. The three core areas each offer different qualitative experiences and each provides an individual insight into the Viking Age stone industry, while in combination they clearly portray the dimensions, intensity and diversity of quernstone production.

EXTENT OF THE COMPONENT PART

Almost 400 quarries have been recorded within an area of c. 20 km^2 in the inner reaches of Åfjorden. The nominated component part of the Hyllestad quernstone quarries comprises three localities selected from the known quarry sites. The three sites are located at the farms of Myklebust (7.1), Sæsol (7.2) and Rønset (7.3).

At Myklebust, the largest concentration of quernstone quarries is found in the northeastern part of the farm, where the nominated area is situated. The nominated area at Myklebust extends north of Millstone Park (Figure 2.48). The nominated area at Sæsol is situated on the fringes of the large quarry areas at Hyllestad (Figure 2.49). At Rønset, the nominated area is situated in the northwestern part of the farm (Figure 2.50).

The buffer zone has been established in order to ensure the integrity of the quarry landscape as a whole. Consequently, the boundary of the buffer zone largely follows the distribution of mica schist to the north and east of the Åfjord. The hills and ridges along the Åfjord on the northern, eastern and southern sides form a natural boundary in the landscape.

LANDSCAPE AND GEOGRAPHY

All the quarries are located along the garnet mica schist which dominates the shores of the Åfjord in the municipality of Hyllestad. The quarries are found along the edge of the fjord, up to approximately 200 m above sea level. The majority of the quarries are, however, located along the fjord and in the adjacent sloping terrain above, less than 1 km from the sea. The fjord landscape, together with the relatively high incidence of garnet mica schist, ensured favourable conditions for the production and distribution of quernstones.

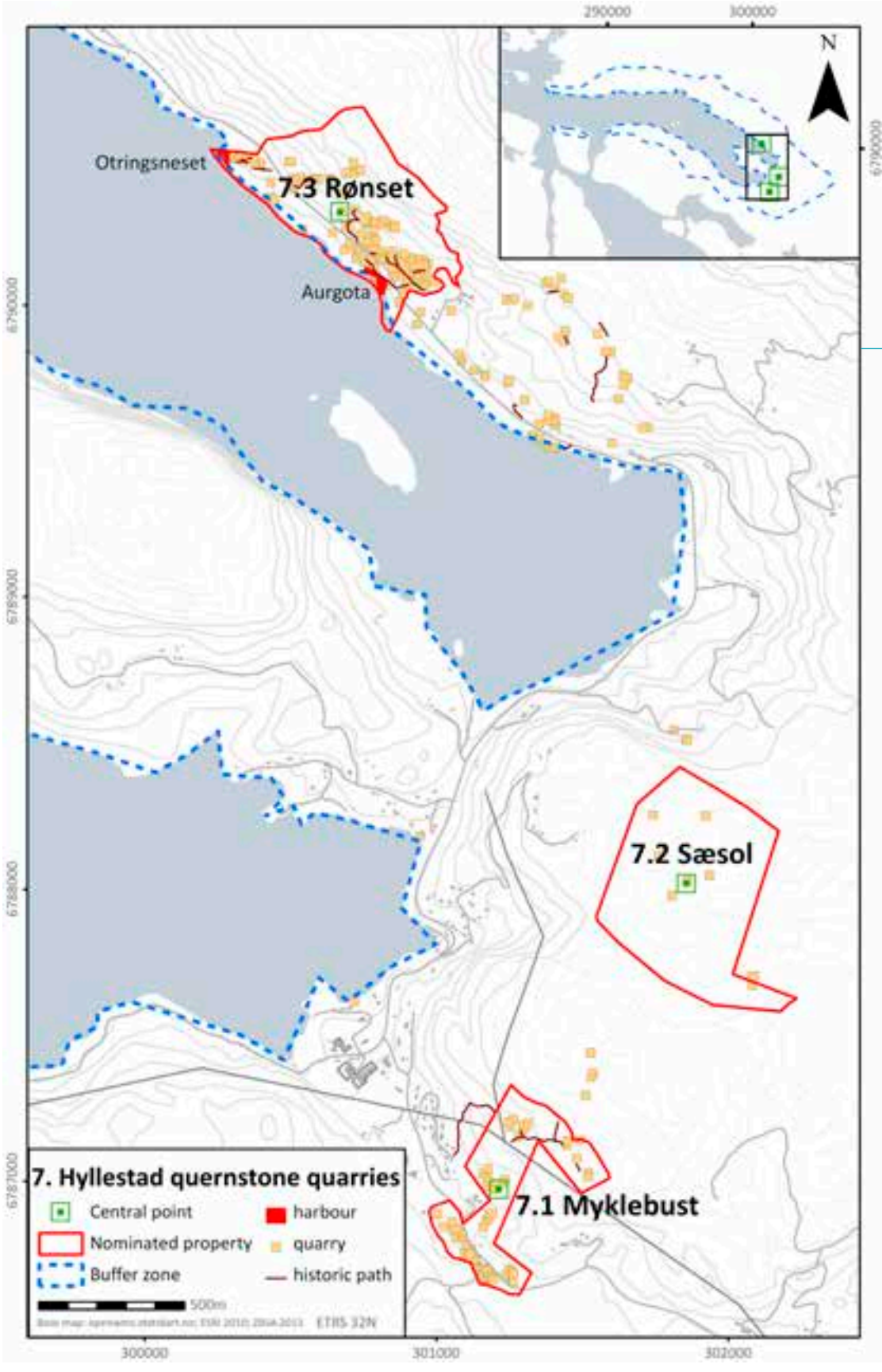


FIGURE 2.47
Overview of the Hyllestad quern-stone quarries.

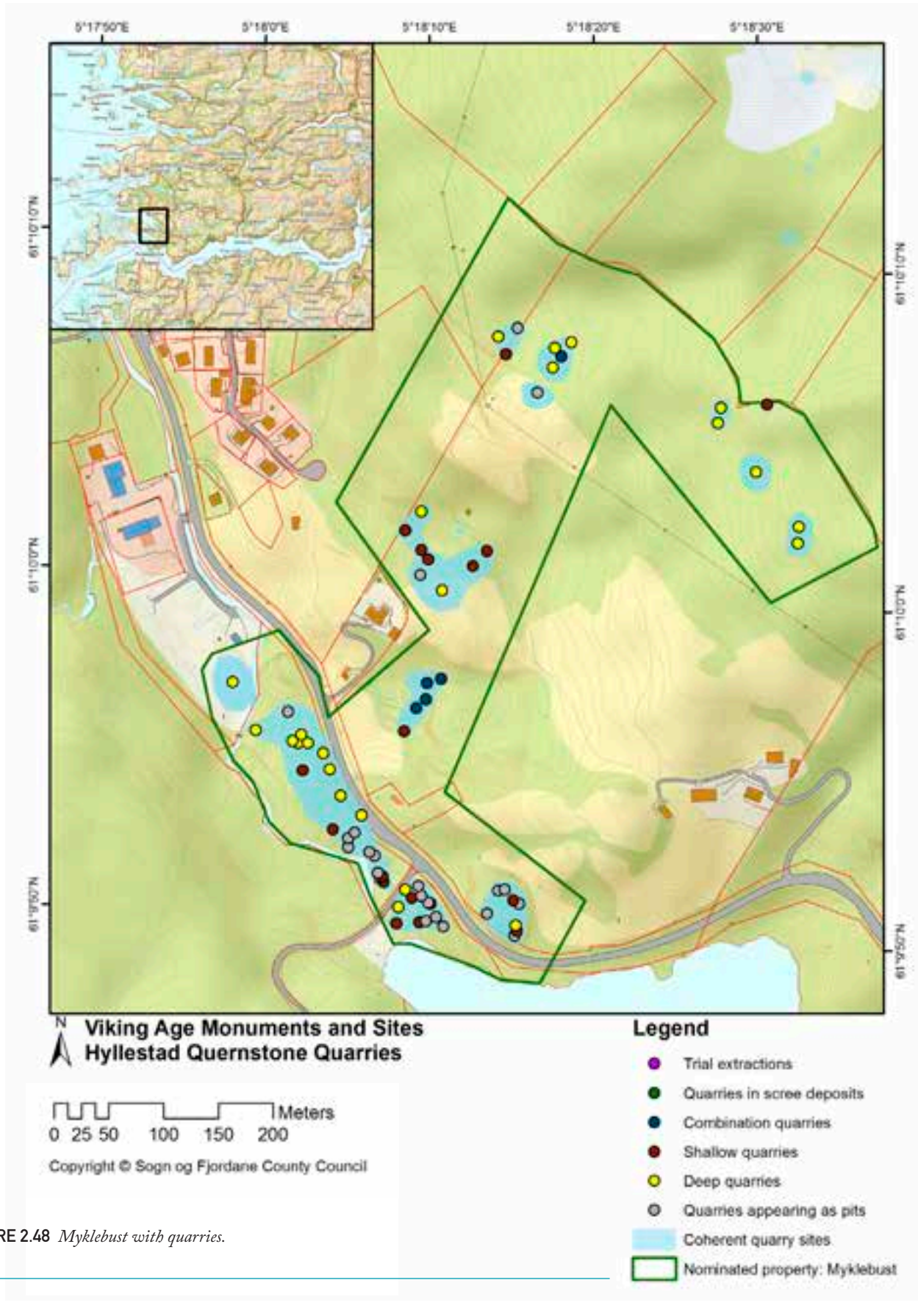


FIGURE 2.48 *Myklebust with quarries.*

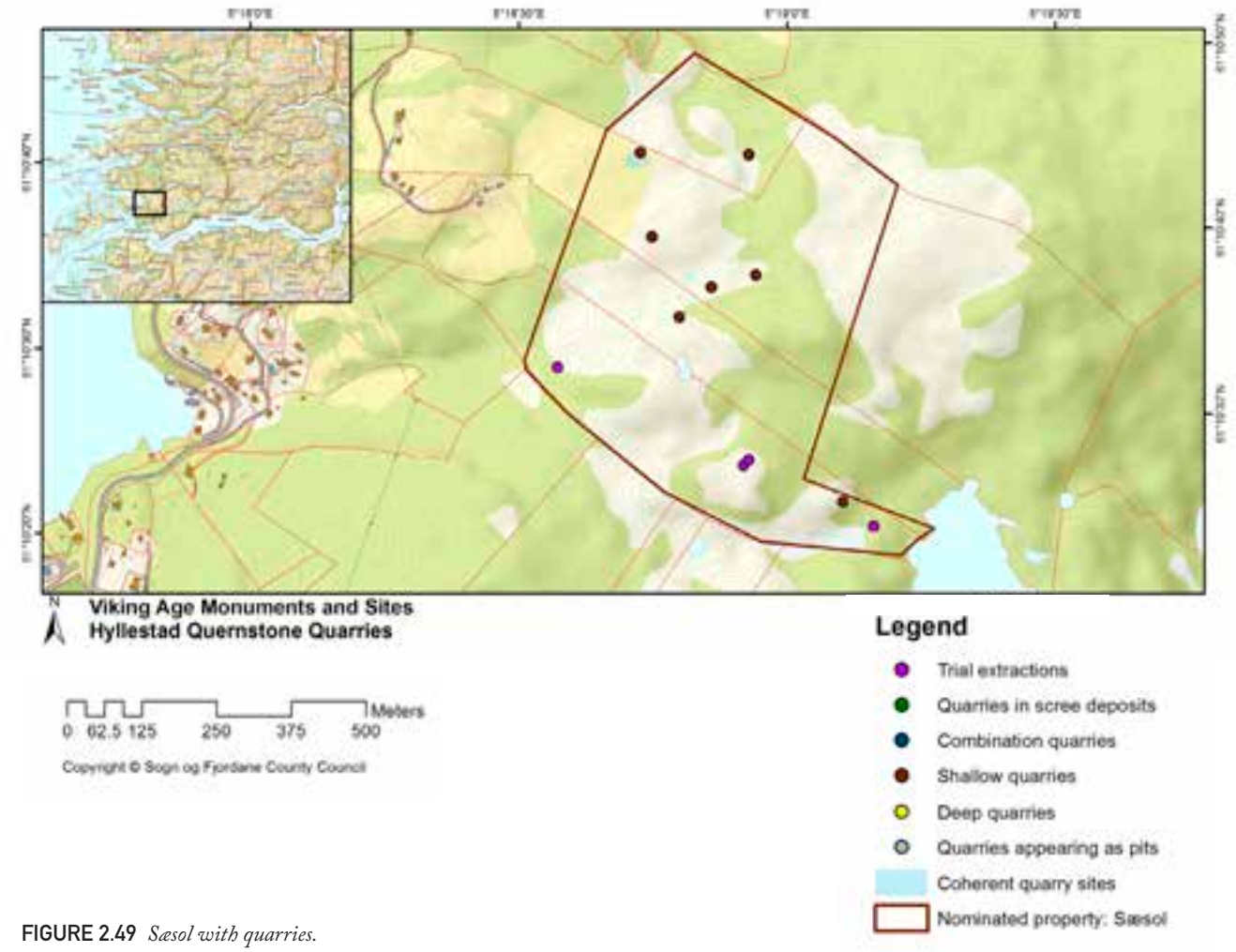


FIGURE 2.49 *Sæsol with quarries.*

The combination of soft mica schist and hard garnets made this stone well-suited to the production of quernstones. The most common type of mica comprises the frequently occurring coarse-grained aggregates of white mica which give the schist the silvery knobbly surface that is typical of the Hyllestad stone. Most of the quarries are located where this type of mica occurs. White mica (muscovite and sericite) is predominant among the micaceous minerals in the quarry area. Quartz is also common, as well as small quantities of staurolite and chloritoid. The garnets vary in size and extent and there is evidence that there was a clear preference for operations in areas where the garnets varied between 2 and 7 mm in size. Although kyanite also varies in its distribution, this does not appear to have played a decisive role in the selection of the production area.

Accordingly, a combination of the natural condition of the raw material and the overall landscape laid the foundations for extensive production and export of quernstones. Forming a belt of production sites along the inner reaches of the Åfjord, the quarries were strategically located in close proximity to the main sailing routes that connected the west coast of Norway with Southern Scandinavia. The transport roads used in connection with quarrying operations are still visible in some places in the landscape. Today these are evident as hollow ways and a few loosely-laid stone roads leading by the shortest route from the quarries down to the sea and the closest shipment harbour from which the quernstones were distributed.

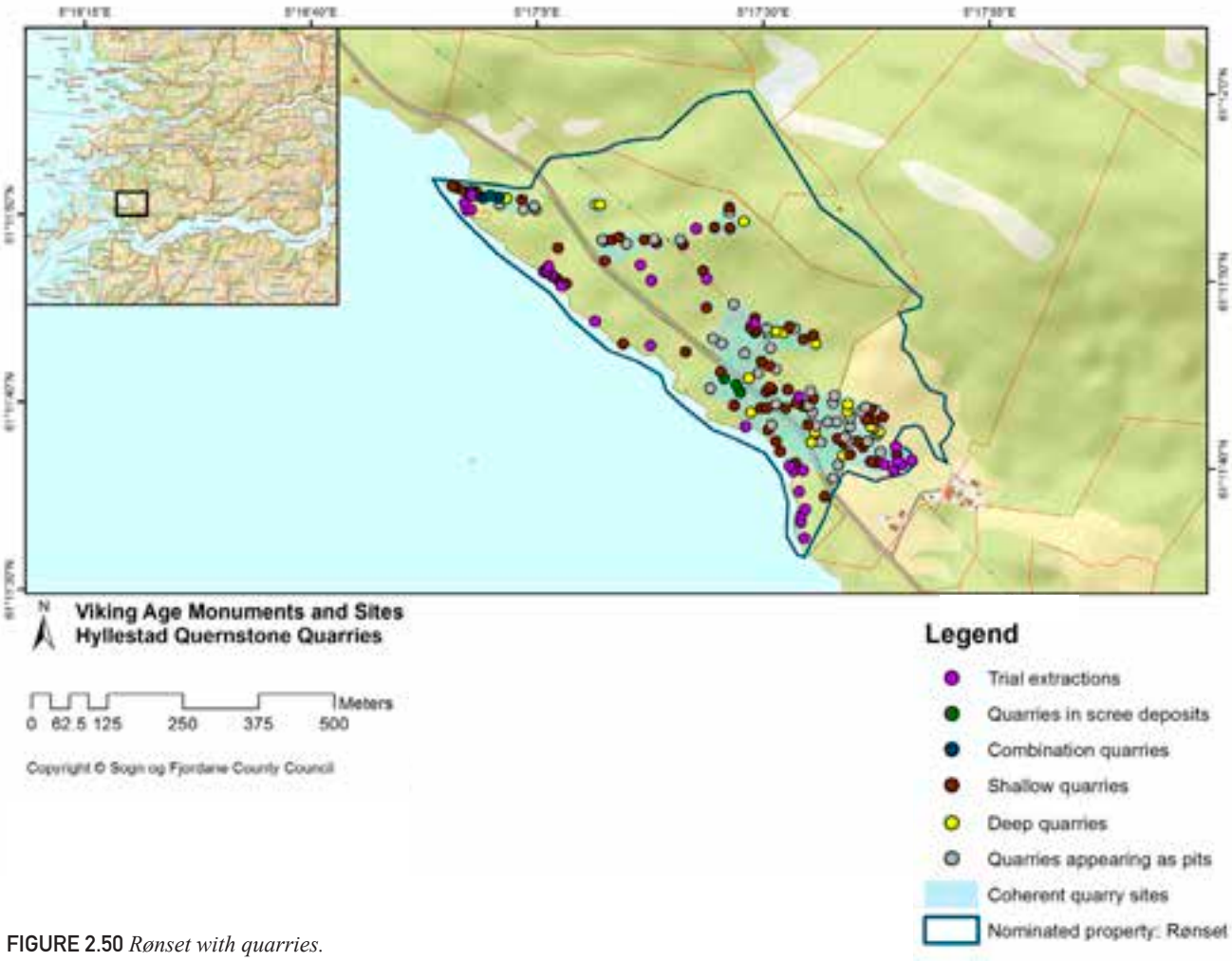


FIGURE 2.50 *Rønset with quarries.*

DESCRIPTION OF THE REMAINS

The two farms of Rønset and Myklebust represent the main area of production, with a total of 165 and 78 quernstone quarries, respectively. The quarries lay very close together and in several places they appear to be overlapping and adjoining quarry areas. In some places, large outcrops were levelled and enormous amounts of stone rubble cover these and the surrounding area. Sometimes the quarry and the spoil heaps are so close together that the original terrain is no longer visible. In contrast, the farm of Sæsol is located in a marginal area with only 13 identified quarries. This area is characterised by more scattered and isolated quarries and each individual quarry is generally smaller and has had fewer extractions of quernstones.

The quarry landscape is varied and diverse and the quarries of the nominated sites can be classified into several subtypes: *Shallow quarries,* where quernstones and millstones were split along the cleavage plane, were the most common quarry type at Hyllestad (Figure 2.51). Extraction of quernstones took place one layer at a time, leaving the quarry with large cleavage planes marked by numerous circular depressions arranged side by side where the quernstones had been extracted.

The second sub-type comprises *deep quarries,* characterised by deeper and more rapid extraction perpendicular to the cleavage. This kind of extraction resulted in high, sheer walls and steps where the quernstones were carved out, one on top of another, rather than side-by-side (Figure 2.52).

The third type of quernstone quarry is a *combination quarry*. Here the quarry started off as a *shallow quarry* but after some time production was carried out perpendicular to the cleavage so that, over the course of time, this resulted in

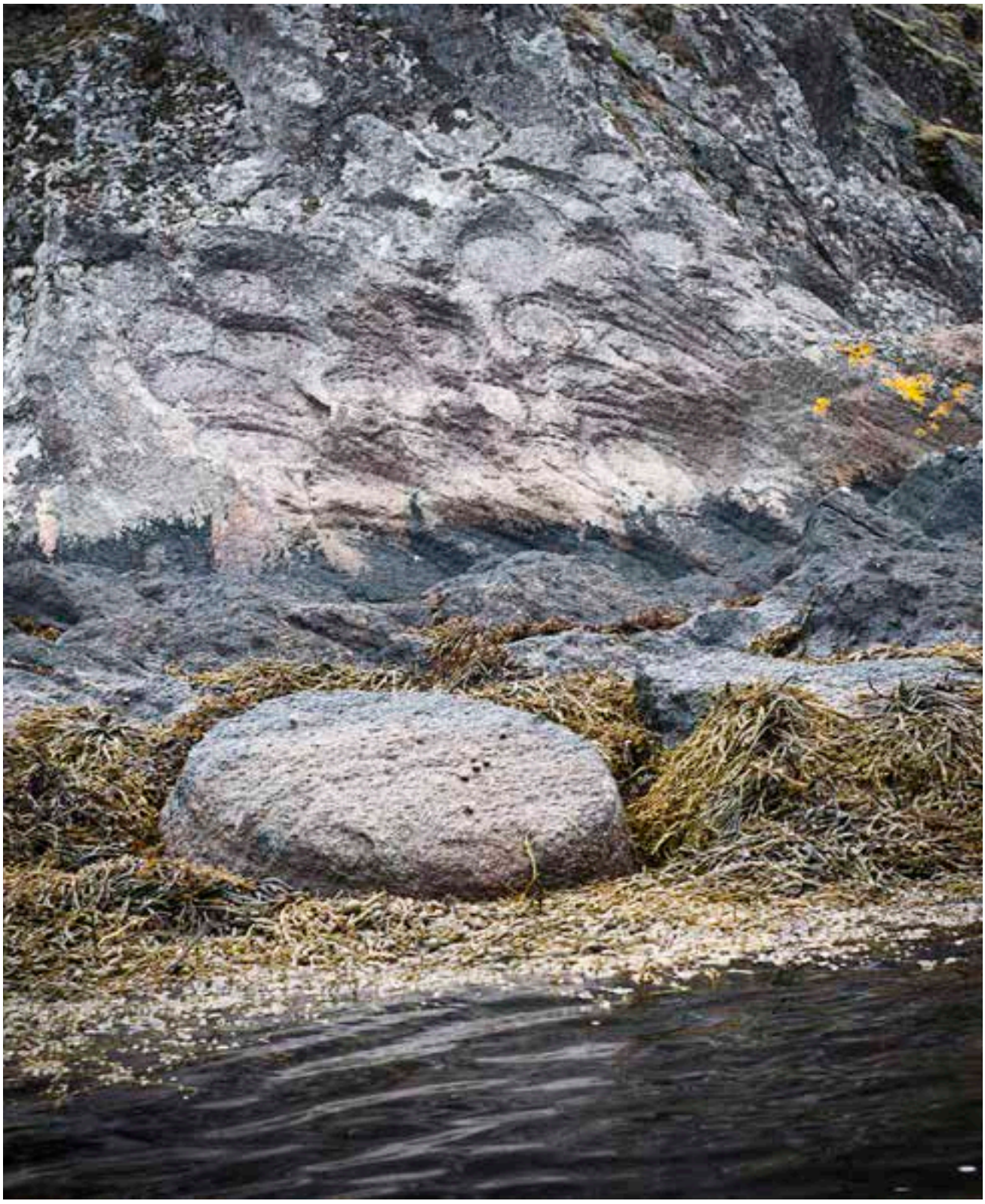


FIGURE 2.51 *Shallow quarry by the sea at Ronset.* ©*Kim Søderstrøm/Jørgen Magnus, Directorate for Cultural Heritage.*

FIGURE 2.52 *Deep quarry in Millstone Park.* ©*Kim Soderstrom/Jorgen Magnus, Directorate for Cultural Heritage.*

a *deep quarry*. Many of the quarries at Hyllestad are very overgrown and covered by spoil from the quarrying operations. In some cases extraction has been so intensive that all accessible rock surfaces have been cut back and the only visible remains of production are the spoil heaps. Today these quarries appear as pits in the terrain, often with a sub-circular spoil heap around the pit.

In addition to the heavily-worked shallow, deep and combination quarries, several *trial extractions* of quernstones have been recorded. These usually vary from between one and ten quernstone extractions and can be characterised as pilot and test operations aimed at assessing the quality of the rock. The final and least common quarry sub-type in the core area is represented by *quarry pits* in scree deposits, of which only three have been identified, all of them at Rønset.

Within the core areas at Rønset and Myklebust, shallow, deep and combination quarries have been identified, in addition to trial extractions. The core area at Sæsol, on the other hand, only has the remains of shallow quarries and trial extractions.

Two harbours, Otringsneset and Aurgota, have also been recorded; both of these are located at Rønset. Large quantities of quernstones lie scattered on the seabed close to these harbours – some of these probably stem from unsuccessful production along the shoreline, while others represent quernstones lost during loading. Ballast stones have also been recorded in the sea – which again clearly indicates that loading of quernstones took place here. Consequently, the quarry landscape at Hyllestad also includes an underwater cultural heritage.

The sites are overgrown and the vegetation makes it difficult to calculate the land area and extraction volume in the quarry area accurately. The depth of most of the quarries is unknown, so we do not know how much rock has been removed or how deep the waste deposits are. This means

FIGURE 2.53 *Quernstones on the seabed in the harbour at Aurgota.* ©*Kim Soderstrom/Jorgen Magnus, Directorate for Cultural Heritage.*

that we lack detailed information on the individual quarries which can be used as a basis for calculations of the volume.

DESCRIPTION OF THE FINDS

In the Viking Age, quernstones were shaped and carved directly from the bedrock. At several of the quarries, this process can be observed directly as there are a number of quernstones which were never loosened from the bedrock. Consequently, the quarries at Hyllestad include a combination of the traces of extracted quernstones and partly-cut quernstones. Furthermore, Hyllestad was a key production site for stone crosses. One quarry used for the extraction of stone crosses has been identified within the core area at Myklebust. This is the only quarry we know of – either in Norway or elsewhere – where traces of a large and important production of stone crosses are evident. Indeed, the quarry shows that quernstones and stone crosses were produced in the same quarries at Hyllestad.

Quernstones from Hyllestad have been found in Denmark, Sweden and Northern Germany in Viking Age contexts (Carelli & Kresten 1997; Baug 2013.), for instance at the urban settlement of Hedeby (Baug 2013). Finally, a number of the stone crosses are still preserved at very special places along the coast of Western Norway.

CONCLUDING REMARKS

In the Viking Age, we see more intensive exploitation of the various resources located in outlying areas and the mass production of various kinds of utilitarian objects derived from outlying areas represents a new phenomenon. Production of items in outlying areas such as Hyllestad reached a level which made it possible to produce a surplus of goods which could be traded as bulk goods and exchanged as merchandise. Through this process the out-

FIGURE 2.54 *Unfinished millstone still attached to the rock* ©*Kim Soderstrom/Jorgen Magnus, Directorate for Cultural Heritage.*

lying areas became connected with the emerging urban settlements all over Scandinavia (cf. Øye 2002: 361–391, 2004: 91; Baug 2002, 2011, 2013; Resi 2008, 2011; Skre 2008: 340; Tveiten 2010).

The quernstones were widely exported and the far-reaching and comprehensive shipments demonstrate that Hyllestad was part of an "international" trade network in the Viking Age. The shipbuilding technology of the time paved the way for new forms of contact and trade, and the trade in consumer goods, in particular, of which the quarries at Hyllestad formed part, was associated with the development of merchant vessels of considerable freight capacity. So far, six cargoes containing quernstones from Hyllestad have been found wrecked along the Norwegian coast, bearing witness to the maritime trade and seafaring activities associated with the quarries. None of the cargoes have, however, been dated. Large parts of Northern Europe were included in Hyllestad's contact sphere, but we find the largest distribution of Hyllestad stone in the areas bordering the Baltic Sea. Quernstones from Hyllestad have been found in such large quantities in Sweden and Denmark, indicating well-organised trade within defined contact networks.

Locally, the production appears to have been run by the larger estates located around the quarries. This conclusion is based on observations of the Viking Age landscape: In Ytre Sogn, where the Hyllestad quernstone quarries are located, there are a few large burial mounds and these may well be linked to the establishment of estates. At Hyllestad, there are good indications that a group of larger estates dates back to the Viking Age (Iversen 1999; Baug 2002). Consequently, quernstone production should probably be examined in relation to these larger estates. In all likelihood, quarries belonged to the larger estates, and they would have been important sources of income for the landowners. The local landowner's links with regional leaders would have been of utmost importance in securing trade. The production itself was, however, more likely undertaken by locals who were not in possession of their own land (Baug 2002, 2005, 2013). As such, the large-scale production of items for bulk trade has, on the one hand, contributed to local social stratification and, on the other, contributed to linking outlying areas with the emerging centres through trading networks.

2.B
HISTORY AND DEVELOPMENT

INTRODUCTION

The following section presents a *focused* history of the serial property. Consequently, the account pays particular attention to the chronology of development of the archaeological sites making up this serial nomination, as this testifies to socio-historical processes which transformed Scandinavia from a series of unstable chiefdoms into early states, rather than outlining the history of the Viking Age in general.

THE VIKING AGE TRANSITION FROM CHIEFDOMS TO EARLY STATES

In order to put political developments in Viking Age Scandinavia into perspective, it is essential to provide some background information on the general historical context. Following the fall of the Roman Empire in Europe, power relations within Europe shifted. In the western parts of what was once the Roman Empire, the Longobards, the Franks, the Goths, the Angles and the Saxons forged their own realms during the Migration period. The Franks established a strong state and their kings became allies of the Catholic Church. As a result, the Franks became a stable power in Western Europe, while the Byzantine Empire ensured political stability in Eastern Europe. Northern Europe, in contrast, was characterised by the migration of Germanic tribes (e.g. Solberg 2003).

BEFORE THE VIKING AGE: 6TH – 8TH CENTURY AD

Following the fall of the Roman Empire, the material culture associated with the agrarian societies of Scandinavia went through a period of rapid change in the mid 6th century AD.

These changes in material culture have often been interpreted as reflecting climatic and social crises. However, rather than viewing the 6th and 7th centuries AD as crisis periods, the changes in the archaeological record have also been viewed as resulting from the concentration of power in fewer hands than was the case in the Roman Period. This gradual process of transformation, evident in the 6th and 7th centuries AD, becomes fully visible in the Viking Age record.

In the centuries leading up the Viking Age, agrarian societies in Scandinavia were led by chieftains and local rulers (Hatt 1935; Ambrosiani 1964; Hyenstrand 1974; Myhre 1980). Freemen and chieftains were loosely allied through personal networks. When wars were on the horizon, the freemen could join forces and elect kings. The role of the king was, however, limited to leading the people in times of war (Tacitus, *Germania*, Chapter 7). Already at this early stage, the elite began to expand their geographical spheres of influence, establishing far-reaching contacts and hierarchical contact networks.

As early as the 7th century AD, Scandinavian seafarers were in contact with tribal groupings of Slav-, Baltic- and Finnish-speaking communities on the eastern coast of the Baltic Sea. But the term "Viking" first appeared in old English glossaries at the end of the century and in subsequent centuries it became synonymous with pirates in the British Isles (Lind 2012). Around this time, Norse people arrived, via Ālande river and Liepāja lake, in the **Grobiņa** (5) region of Latvia. They established trading, and probably also agrarian settlements. An excavation at the Priediens burial mound site at **Grobiņa** (5.4) led to the first picture stone of typical Swedish type being discovered outside Scandinavia. In Scandinavia, the first earthworks of Danevirke were probably built at the end of the 7th century AD, testifying to the growing will and need of the elite to mark and defend their territory with military constructions.

TABLE 2.3 *Type-sites and the component parts of the serial nomination which represent them.*

TYPE OF SITE	COMPONENT PART	PERIOD OF USE (AD)
Urban settlement sites	Hedeby	800 – 1066
Mass-production sites	Hyllestad	750 – 1930
Fortification structures	Danevirke The Trelleborg fortresses	680 – 1945 980 – 1000
Assembly sites	Þingvellir	930 – 1798
Burial sites	The Vestfold ship burials	834 – 920
Seats of governance with religious monuments	The Vestfold ship burials (early seats of governance) Jelling (late seat of governance)	834 – 920 958 – 1050
Sites of expansion and ineraction	Grobina	650 – 1130

THE BEGINNING OF THE VIKING AGE

In the latter half of the 8th century AD, the chroniclers of the time reported the first attacks on England by Northmen (Norsemen) from Scandinavia with shock and horror. One such event has traditionally been seen as marking the beginning of the Viking Age. On the 8th of June in AD 793, the monastery of Lindisfarne, on the east coast of Northern England, was raided and plundered by heathen assailants who came from over the sea. After Lindisfarne, the attacks became far more frequent and spread to monasteries in Scotland and Ireland.

As a consequence, raids and expeditions became the events most connected with Scandinavians abroad at the time. The Viking Age practice of *fara í víking* made it possible for the Scandinavian elite to expand their geographical spheres of influence, to establish far-reaching contacts and hierarchical contact networks and to ensure stability through strategic conversion of wealth. A clear and early indicator of the extension of territorial power by Danish kings at home is evident in the archaeological record, with the massive extension of Danevirke (4). About AD 740, or soon after, the earlier ramparts of Danevirke (4.1-4.7, 4.19-4.22) in Northern Germany were enlarged and partially reinforced. This made it the largest structure in Northern Europe at this time. A Danish king possessing previously unheard of power thereby marked the border of his territory with the Frankish Empire – and the southernmost extent of Norse settlement in Scandinavia.

This development reveals changes in the Scandinavian elite's attitudes towards themselves and, not least, the role they played in society. At the beginning of the Viking Age, it was up to the assembly to determine whether the king was forced to abdicate and a new king chosen. A king's title was not inheritable; new alliances and contact networks had to be drawn up afresh each time a new king emerged. Scandinavia was then ruled by these chieftains or petty kings. The remains of guild halls, longhouses and a harbour at Borre (6.1), dated to the 7th – 8th century, link the site to the estate of just such a chieftain. Collectively, these findings provide a clear conception of Borre (6.1) as a stronghold for petty kings in this part of Norway.

In the 8th century AD, economic structures began to change together with the early development of trading centres. The earliest of these trade settlements were established in Ribe in Denmark and in Birka in Sweden as early as the 8th century AD, but a small settlement also emerged in **Hedeby** (4) in Northern Germany in the second half of that century. At a comparably early date, a Scandinavian settlement had already been established at Staraja Ladoga in Russia by around AD 750.

FIGURE 2.55 *Kingdoms in Europe during the Viking Age and Viking attacks during the 9th century AD.*

FIGURE. 2.56 *Norse Settlements and areas of interaction.*

9TH CENTURY AD

In the first decades of the 9th century AD, people outside Scandinavia experienced the full force of Viking raids and expeditions. The powerful Frankish Empire suffered heavily from coastal invasions from the AD 830s onwards. Along large rivers such as the Loire, Seine, Maas and Rhine, heathen seafarers from Scandinavia penetrated deep inland and ravaged or besieged monasteries and towns. Consequently, colossal amounts of silver and great numbers of valuable objects of every type changed ownership and made their way into the hands of the Norse and back to Scandinavia. Numerous bands of Norse warriors returned in subsequent years, bringing with them all their worldly possessions, in addition to their families and followers, and began to settle whole swathes of land. Historical and archaeological records, together with place names, attest to the new homes of the Scandinavians in England, France and Friesland. In Scotland and Ireland, the occasional Scandinavian base was established.

Probably as a result of the founding of a kingdom in Norway by Harald Finehair at the end of the 9th century AD, numerous freemen and their families left the country because they did not wish to be subjected to royal service and new taxes. In the 9th century AD, Scandinavians began settling on the North Atlantic islands: Orkney, Shetland, the Faroe Islands and, eventually, Iceland. This migration of people from Scandinavia to the North Atlantic has recently also been traced through DNA surveys.

Beginning in the 9th century AD, the Norse extended their influence further eastwards. In AD 839, Scandinavians reached Constantinople and twenty years later the so-called Rus made their first attack on the city. The Rus were Scandinavians, mainly from Sweden; a warrior elite that ruled Novgorod and the surrounding area, now part of Russia, for the next four hundred years. In the chronicle of the Archbishop of Bremen, *Vita sancti Anscarii* by his successor Rimbert, in which an attack by the Swedish King Olaf in AD 854 is described, a place called Seeburg is mentioned. It has been suggested that this Seeburg corresponds to a place now known as **Grobiņa** (5) in Latvia. From the 9th century AD, **Grobiņa** (5) expanded into a settlement of Norsemen and Curonians. This conclusion is supported by grave goods found in flat-grave burials of Smukumi (5.2), Priediens (5.4) and Atkalni (5.5) and the burial mounds at Priediens (5.4). An account by a trader called Wulfstan,[7] who travelled from Hedeby to the mouth of the river Weichsel, even indicates direct trade between the Eastern Baltic area around **Grobiņa** (5) and Denmark.

While the Viking overseas expansion reached an unprecedented scale, the ensuing contacts with the Christian empires and kingdoms in Western Europe influenced economic, political and social processes in Scandinavia. Thus, it was during the 9th century AD that **Hedeby** (4), in the southern part of the Jutland Peninsula, became established as one of the crucial maritime trading centres (in Latin: *emporia*) while Ribe, located further north in Jutland, experienced a considerable decline. **Hedeby** (4) began to serve as a nodal point for long-distance trade and mass production, playing an increasingly important economic and political role in the Nordic region. Coins as means of payment (and sovereign right) were adopted, being based on Continental or English models. However, evidence of the local minting of coins in **Hedeby** (4) shows its only temporary character until the end of the 10th century AD. The development of the settlement in **Hedeby** (4) intensified and the harbour facilities were expanded in the AD 880s. Landing stages for heavy merchant ships served as a market area. It was via **Hedeby** (4) that the German missionary Ansgar visited Birka in Sweden in AD 829 and established the first known Christian congregation in Scandinavia.

Mass production of goods was as important for the new economic developments as trade. Specialised craftsmen produced items for the home market as well as for export. Thus, the production of craft goods from **Hedeby** (4) grew considerably. But most remarkable is the trade in quernstones from the quarries in **Hyllestad** (7) in Norway which reached an international scale at this time. Products from here were also traded via **Hedeby** (4).

A contemporary written source shows the connections between **Hedeby** (4) and Western Norway: An account of the late 9th century from King Alfred of Wessex (AD 871-899) in England tells of the voyage of the north Norwegian trader Ottar from Kaupang, a trading port in the Vestfold area of Norway, to **Hedeby** (4) (Skre 2007b: 150). This trading place probably connected **Hedeby** (4) with the nobles buried in the **Vestfold ship burials** (6). There, two extremely advanced seagoing vessels were placed as ship burials in large mounds in *Oseberg* (6.2) and *Gokstad* (6.3) in Vestfold in AD 834 and 905-910. These burials mark the apogee of the tradition of linking burials to the sea and of marking the power and territory of kings

[7] Also Wulfstan of Hedeby. He was mentioned in the translation of Paulus Orosius's Historiae Adversus Paganos by Alfred (the Great) of Wessex (AD 871-899).

with mounds. This tradition can be traced back to the ship burials of the Vendel and Valsgärde burial grounds, dating from as early as the 7th century AD, and can be found all over Scandinavia until Christianisation.

10TH CENTURY AD

After numerous attacks and raids on the British Isles and Continental Europe in the late 8th and during the 9th century, the Viking raids abated to a large extent in the 10th century. Many areas of Northern and Western Europe saw a consolidation of Norse settlements, the adoption of Christianity and the formation of stable states in the home countries. First larger kingdoms in Denmark, Norway and Sweden were established. Thus it was Harald Finehair who managed to establish the first kingdom in Norway. This encompassed most of the southern part of the country, but fell apart under his successors after AD 933.

Jelling (2) in Denmark became a royal monument complex during the reigns of Gorm the Old (c. AD 936-58) and his son Harald Bluetooth (AD 958-87). Harald Bluetooth proclaimed the introduction of Christianity into Denmark and the inclusion of Norway into his realm by erecting a rune stone and building the first large wooden building under the present church in Jelling**.** The **Trelleborg fortresses** (3) and the *Kovirke* rampart of **Danevirke (**4.13-4.18) were built around AD 980 and have been linked to Harald's efforts to consolidate his kingdom. Probably also under the dominance of the Jelling dynasty the flourishing trading town of **Hedeby** (4) was surrounded by a large rampart and connected to **Danevirke** (4.5-4.11) already in the middle of the 10th century. In the final quarter of the 10th century, the occupation of the other important Scandinavian trading centre, Birka in Sweden, ended. At the same time, the new trading town of Sigtuna developed very close by.

The process of Christianising Norway was, however, begun by Olav Tryggvasson who ruled Norway from AD 995 to 1000. Following his death, his successor Olav Haraldsson continued the struggle and was eventually even canonised by the Church in a move to establish their institutions. The Christianisation of Iceland, however, was different, with the island being free of any sort of control by a king. From its establishment in AD 930, the free Icelanders assembled annually for the Althing in **Þingvellir** (1) to decide on laws and to administer justice. After visits from missionaries, and even threats from the Norwegian king Olaf Tryggvasson in the final years of the 10th century, a decision to convert the entire population of Iceland to Christianity was taken at the Althing in **Þingvellir** (1) in the summer of AD 1000. In Sweden, Christian belief did not spread after the first missionary attempts by Ansgar in the AD 800s. Only at the end of the 10th century is evidence of the existence of the first Christian king, Olof Eriksson Skötkonung, in the Mälar region of Sweden, provided by a coin found at Sigtuna and an account of Adam of Bremen [8] (before AD 1050-1081/85). However, the mission in Sweden remained a slow and dangerous enterprise.

11TH CENTURY

In the 11th century, the tradition of erecting rune stones as memorials reached its peak in Sweden, employing Christian iconography merged with Viking Age ornamental tradition. The bishopric of Lund in Southern Sweden was founded around AD 1060 but belonged at the time to the Danish kingdom. By the 11th century, Scandinavian kings had become Christian rulers who maintained close family ties with a diversity of European noble houses as well as with each other. The Scandinavian kingdoms evolved into Medieval Christian states. However, in the AD 980s Viking raids increased anew, especially in England, and continued there until 1016. They ended when the Danish King Knud of the Jelling dynasty took over the English Crown. As England was a Christian kingdom with a strong Church, he was obliged to raise the eastern part of his realm to the same level, furthering Christian mission and the establishment of an institutionalised Church in Scandinavia. Knud governed as a Christian ruler over a huge empire which embraced extensive lands around the North Sea. The Norwegian King Harald Hardrada (AD 1045-66) is regarded as "the last Viking king" of Scandinavia. He was defeated and killed by the English King Harald Godwinson at Stamford Bridge, in his attempt to invade England in AD 1066. Later accounts by Snorri Sturluson, from the 12th century, connect him with the destruction of **Hedeby** (4) around AD 1050. The emporium of **Hedeby** (4) was abandoned in the 11th century after it was twice destroyed during a short time. Its function was taken over by the newly founded town of Schleswig on the opposite shore of Schlei fjord, which also provided more favourable conditions for the larger ships of the time. Even though

[8] In his historical text *Gesta Hammaburgensis ecclesiae pontificum* written between AD 1073 and 1076.

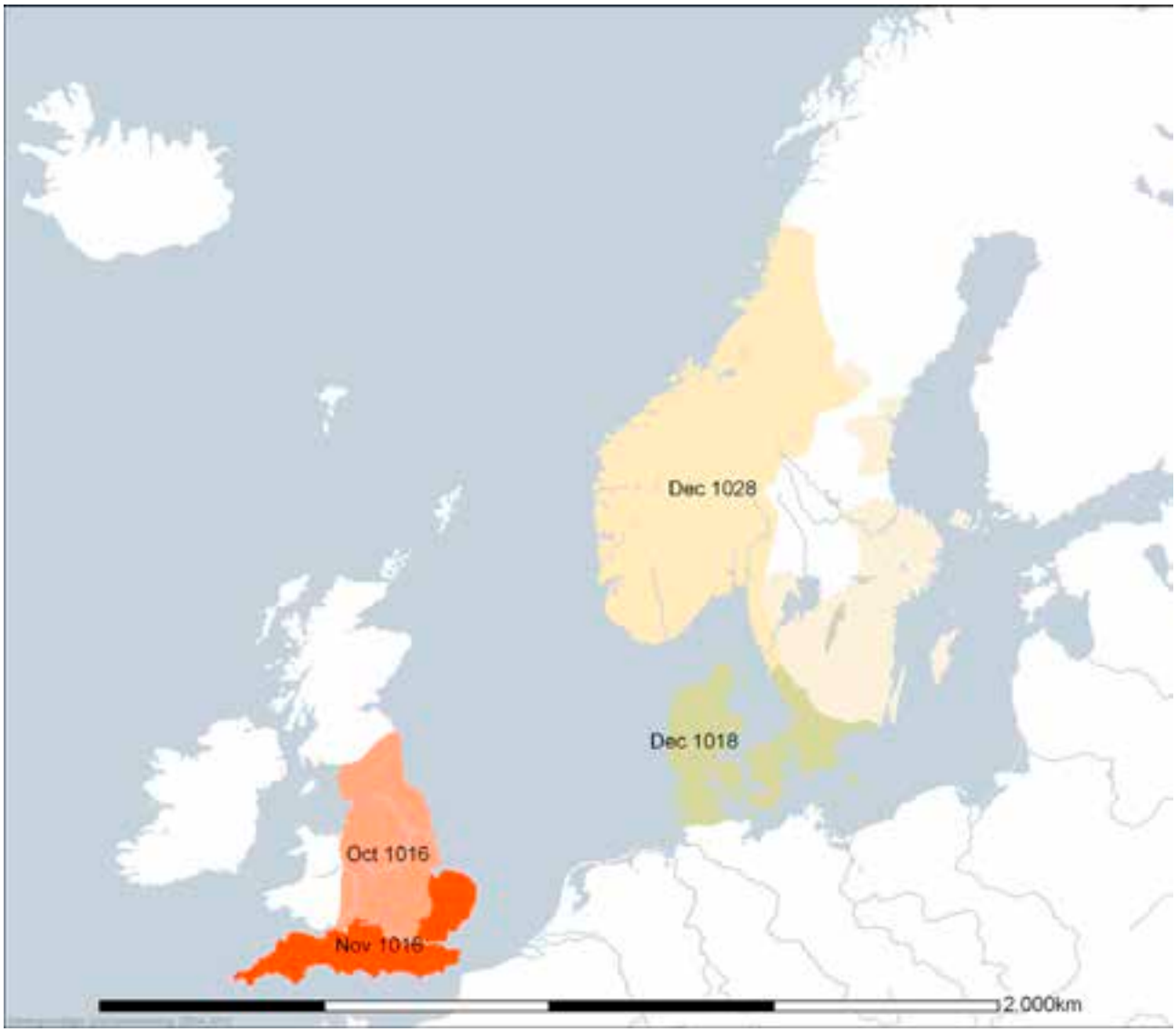


FIGURE 2.57 *Extent of the kingdom of Knud the Great of Jelling in the 11th century.*

the seat of the Danish king had already been moved to Roskilde, the stone church at **Jelling** (2) was built at the end of the century and continues in use to this day.

LATER DEVELOPMENTS OF IMPORTANCE

There are different opinions on when the Viking Age ended, but "Viking" voyages overseas gradually diminished with the formation of the Christian kingdoms of Denmark, Norway and Sweden, growing royal power and Christianisation. The Scandinavians in Western and Eastern Europe blended into the local populations, their presence leaving place names and words adopted into the language of the region. No permanent settlement was established in America and the last known voyage there was in the early 14th century. The settlement in Greenland prevailed until the 15th century. The last ship known to sail from Greenland arrived in Norway in 1410.

As most of the component parts consist of relatively large man-made structures, these archaeological monuments continued to dominate the landscape for centuries even if they were no longer in use. Some of the sites stood abandoned for a millennium until the monuments

became objects of scientific interest in the 19th century. Several of them came to define the development of archaeology in Northern Europe. Furthermore, as the sagas were made available in translated and printed editions, interest in the Viking Age grew stronger, also among the general populace. Indeed, during the late 19th and early 20th century, the Viking Age was increasingly singled out as "the golden age" of the emerging Nordic nations. The component parts of Þingvellir (1), **Jelling** (2) and the **Vestfold Ship Burials** (6) grew in symbolic significance as they were seen in direct relation to the early development of the states of Norway, Denmark and Iceland. Similarly, **Hedeby and Danevirke** (4) became symbols in border disputes, representing the beginnings of the nation states of Denmark and Germany. As such, the Viking Age is a Nordic example of the more general 19th century trend of legitimating the new nation states by establishing lineages which link their origins with archaeologically and historically defined "cultures" of the past. Consequently, since the mid 19th century, several of the component parts have contributed to making the Viking Age a period of intense public interest, actively used in establishing a sense of a national history. Some of the key archaeological sites of the Viking Age, for example Borre (6.1), and the period in general, received negative attention as a consequence of their symbolic and political exploitation by the National Socialists. Therefore, following World War II, national Viking Age enthusiasm waned only to regain full momentum in the 1990s. With the emergence of the field of heritage, the Viking Age and the component parts of this nomination have once again become a resource, not only for the scientific community, but increasingly also for local communities associated with the sites.

HISTORY AND DEVELOPMENT OF THE COMPONENT PARTS

The following sections describe the historical development of the component parts, with a particular focus on their roles and development during the Viking Age, before giving a brief review of their research history. For more details on the latter, please refer to the literature list.

ÞINGVELLIR (1)

HISTORY OF USE

In Iceland, an assembly for the entire country was established around AD 930 and called the Althing (General Assembly). It was located on the field of Þingvellir. The establishment of the General Assembly marks the beginning of an organised independent society in Iceland generally referred to as the Icelandic Commonwealth. It would last until 1262-64. However, local assemblies were set up in Iceland before the country was fully settled. Early sources mention assemblies at Þórsnes (Snæfellsnes, West Iceland) and Kjalarnes (Southwest Iceland). The establishment of a single general assembly in Iceland was an ambitious move, since it would possibly have seemed more natural to divide the country into smaller ones.

At that time, all Germanic societies held their assemblies outdoors. This was also the case at the Althing at **Þingvellir**. Since the assembly only lasted for a fortnight, there was no need to invest much effort in buildings and traces of activity are therefore limited. The assembly was held in the area marked "Assembly Site". Assembly duties were mainly confined to two places, *Lögberg* (Law Rock) and *Lögrétta* (Law Council). The exact location of the Law Council during the Commonwealth/Viking Age is not known. Sources from the 13th century imply that Lögberg was on the eastern edge of Almannagjá, although it is impossible to locate Lögberg categorically at the beginning of the Commonwealth. Together with the Law Council, Lögberg was the centre of the assembly proceedings. The laws were recited at either of these places or, later, in the church if the weather was bad. Members of the Law Council and panels proceeded from Lögberg to perform their duties, and it was there that the assembly was inaugurated and closed. Announcements of all kinds were made at Lögberg, summonses were declared there, as was anything else that should be made public; people made speeches, presented ideas and submitted proposals. The

Law Speaker *(lögsögumaður)* was based at Lögberg, where a special space was allocated to him. Sources from the 13th century imply that the Law Council sat on the field in front of Lögberg, possibly north or east of the river Öxará. However, there is much to indicate that it was originally located elsewhere.

The Althing during the Icelandic Commonwealth (AD 930-1262/4)

Tasks performed by the Icelandic Althing were divided between its institutions: a Law Council, five courts and the Law Speaker. The Assembly's most important forum was the Law Council, the organisation of which was finalised in about AD 1000. It comprised 48 of the country's leading chieftains (*goðar*, sing. *goði*), each with two advisors, plus the country's two bishops. Each goði was supported by a group of followers drawn from among the farmers. Their association was based on mutual trust and could be terminated by either party. The principal task of the Law Council was to "frame the law" and "make new laws". The former involved ruling on which law applied when a dispute arose as to the substance of a legal provision. In interpreting the term "frame the law", special attention should be paid to Medieval ideas on the origin and nature of law. According to these ideas, the laws pre-existed in human minds and appeared in traditional practices. They were not the creation of any individual, but rather part of the human condition, past and present; laws were the tried and true inheritance of past generations and were to be respected. Rules were not conceived and adopted consciously and purposefully, they were brought to light.

The laws were preserved in oral tradition and human memory is not infallible, so laws in this form were surprisingly flexible and could more easily be adapted to new circumstances than laws that are fixed in writing. In this instance, the method was not dissimilar to that practiced when courts today issue judgment in cases lacking specific legal provisions and rules have to be formulated supported by legal references such as legal principles and general legal conceptions.

Courts of law

There were five courts at the Althing, one for each quarter of the country and a fifth for the entire country. For a judgment to be passed in a quarter court, all the judges – 36 in number – had to agree. Failing this, the case was dealt with in the fifth court, where a majority was sufficient to decide the outcome. The fifth court comprised 48 judges, 36 of whom participated in the handling of each case. Finally, the Law Speaker must be mentioned, whose chief role it was to recite the laws before the Law Council. Originally, the laws were unrecorded and his regular recitation of them was intended to ensure their preservation. In addition to this, the Law Speaker directed the assembly proceedings. In the winter of 1117-18, the major step was taken of having the laws written down; subsequently additions were made to them. The outcome was the extensive legal codes that have been preserved as *Grágás* (which literally means "grey goose") in manuscripts from the mid 13th century. Although the text of *Grágás* is generally terse and bears all the characteristics of learned texts, it is the most extensive of all Nordic Medieval law codes, an indication of the major legislative efforts in the new and unformed Icelandic society.

LATER DEVELOPMENTS OF IMPORTANCE

Around 1200 this administrative structure began to disintegrate and the entire first half of the 13th century was characterised by major domestic clashes between the country's most powerful leaders.

The kings of Norway had long been of the opinion that countries which had been chiefly settled from Norway were in one way or another subject to their sovereignty. By the mid 13th century, royal power in Norway had grown considerably in strength following brutal domestic conflicts. Individual Icelandic leaders had often sought the king's support in their struggle for supremacy and become his liegemen. The king's control was signed and sealed in 1262-64, when all the country's principal leaders swore their loyalty to him and made a special covenant laying down both parties' rights and obligations. The Icelanders agreed to pay the king a tax but reserved the right to involvement in the determining of laws, while in return the king promised to ensure peace for them, together with certain other specific rights.

Norwegian laws were reviewed during the years 1267-77. The final stage in this extensive work was the law codex *Jónsbók,* which was sent to Iceland in 1280 and adopted in the country following heated debate at the Althing in 1281.

During the years 1262-1319, the country's administrative structure was altered in the direction of a state in the modern understanding of the word although, in Iceland as elsewhere, this was not achieved without conflict. The most visible change was that it now became the task of the king and his officials to enforce the laws. This had previously been the responsibility of the parties to the case. The

king also assumed part of the legislative power together with the Althing, which did, however, continue to adopt laws independently. Furthermore, the king and his council became the seat of final judicial power in Icelandic affairs.

In 1662, Absolutism was introduced in Iceland, which had been under Danish rule since the 14th century, and the royal senior administration reorganised accordingly. The effect of this on the Althing was to substantially reduce the legislative power of the Law Council. However, it still adopted laws in limited areas up until 1700. As the end of the 18th century approached, assembly meetings were scarcely a shadow of their former selves. To make things worse, major earthquakes in 1789 somewhat damaged the assembly site. A decision was taken to move the assembly to Reykjavík (which was granted a municipal charter in 1786 and was gradually emerging as Iceland's capital), which was implemented in 1798. The assembly met in Reykjavík the following two years, before it was abolished in 1800 as part of a complete restructuring of the country's legal system. It was reinstated in altered form in 1843. After the assembly was suspended in 1798, Þingvellir became an important symbol of national unity in Iceland›s process towards independence in the 19th and 20th centuries.

This resulted in much discussion about the location of a new Althing and Þingvellir became the meeting ground for those arguing in favour of Iceland seeking more rights and later independence from Denmark. In 1848, the first Þingvellir meeting was held which composed a petition to the king requesting that he provide Icelanders with a national assembly with the same rights enjoyed by Danish subjects. Þingvellir meetings were held irregularly until 1907. At these, political campaigns were planned and the issues placed in the hands of those who presented them to the Althing and the authorities.

Due to the Þingvellir meetings and the movement for independence, Þingvellir re-established itself as the main meeting place for Icelanders, where they gather and celebrate the biggest and most important events in the history of the nation. Subsequently, six major festivals have been held at Þingvellir to commemorate major milestones in the history of Iceland.

The nominated area has undergone some physical changes since it was first inhabited due both to natural causes and human activity.

The faults and fissures of the Þingvellir rift valley have grown incrementally. Measurements over the past 40 years show a latent annual creep of about 3 mm laterally and a 1 mm vertical displacement of the rift zone. However, short rifting events involving extension and subsidence of a few metres also occur. It is believed that, due to tectonic forces, the land has subsided almost 4 m since the Althing was established in AD 930. One event is known from historical times. It occurred in spring 1789 and lasted for 10 days. The subsidence then measured 2.5 m in the middle on the north side of lake Þingvallavatn. It caused groundwater levels to remain higher and some of the southern part of the nominated area became wetter. In the summers of 2000 and 2008, two strong earthquakes shook Southern Iceland, causing rocks to fall from the fissure walls at two places in Hestagjá; small rocks also fell in Almannagjá.

In the earliest time of the site's use the river *Öxará* (Axe river) was dammed upstream and directed through the assembly site. This is documented in two Icelandic Medieval manuscripts. The purpose of diverting the river was to provide water for the assembly, making this the first known major water diversion scheme in Iceland. Originally, the land would have been higher, the current in Öxará stronger and lake Þingvallavatn further away. The assembly fields themselves, after which Þingvellir is named, would therefore have been drier than they are today. River Öxará then changed the appearance of the site through sedimentation and land subsidence lead to encroachment of water up to the assembly site.

The site has also undergone changes due to construction and the actions of the inhabitants of Þingvellir and other visitors to and users of the site, mostly during the last 150 years.

It is not known when Þingvellir was first settled. Place names tell us nothing about the farms in the area prior to the days of the Althing, but after its foundation the estate was known as Þingvöllur (Assembly Plain, singular), according to the Book of Icelanders.[9] Through the centuries, the site has been used by the local farmer at Þingvellir for grazing and other conventional farming practices, but every summer he had to deal with the masses attending the assembly. Þingvellir farm has probably always been located on a similar site to that of the present-day farmhouse. The oldest description of the farm dates from 1678. Old drawings show that the farm's front gables faced south with its façade in line with the south gate of the cemetery. The farm buildings were made of turf and rock until 1880, when the turf buildings were gradually replaced by

[9] Written in the 12th century by Icelander Ari Þorgilsson.

FIGURE 2.58 *Þingvellir church and farm.* ©*Kristinn Magnússon, Cultural Heritage Agency of Iceland.*

timbered ones. A new concrete building with three gables was constructed on the old farmhouse site in 1928, to be ready in time for the Althing celebrations in 1930. It was designed by Guðjón Samúelsson, the State Architect, and illustrates how the distinctive Icelandic gabled farmhouse style could be adapted to the new building material of concrete. An extension of two gables was added before the 1974 Festival marking the 1100th anniversary of the settlement of Iceland.

The first church at Þingvellir was built soon after the adoption of Christianity. In his *Heimskringla* (History of the Kings of Norway), Snorri Sturluson describes how King Olaf Haraldsson, who assumed the Crown in 1015, sent timber to Iceland and a church was then built at Þingvellir. There has been a church at Þingvellir ever since. It is thought that the churches at Þingvellir were always made from timber. The present church was built in 1858-59 and in 1907 a new tower was built. The church only seats just over 40 people and is not lavishly adorned. Several place names refer to the church and clergy: Kirkjutún (Church Field), Klukkuhóll (Bell Hillock), Klukkustígur (Bell Path), Prestakrókur (Priests' Corner), Prestateigur (Priests' Meadow), Presthólmi (Priests' Islet), Biskupshólar (Bishops' Hillocks).

The history and striking landscape of Þingvellir have made the site an almost mandatory stopping point for tourists since the birth of tourism in Iceland. Alongside the growth of tourism at the site from about 1900, ideas came forward with respect to preserving the area which was experiencing the negative effects of uncontrolled tourism.

In 1907, State Antiquarian Matthías Þórðarson wrote a magazine article entitled "Protection of Beautiful Places and Remarkable Natural Phenomena". In this, he discussed the necessity of preserving places that were remarkable and special because of their beauty; no less important, he maintained, than protecting ancient relics and old church objects. He suggested various places, but specified

the Almannagjá fault and the area around Þingvellir by river Öxará as an example of a site that deserved better care. In 1913, teacher Guðmundur Davíðsson wrote an article which triggered a discussion about the establishing of a national park at Þingvellir. In the article, Guðmundur cited examples of national parks in the US and explained the necessity of protecting Þingvellir which, by then, had become a popular weekend destination for tourists.

Þingvellir National Park was designated by a special law on the protection of the area, passed by the Althing on 7th May 1928. According to the law text, Þingvellir by river Öxará and the surrounding area shall, from the beginning of 1930, be "a protected national shrine of all Icelanders". The law says that the boundaries of the preserved area shall be marked by the Almannagjá fault to the west and the Hlíðargjá and Hrafnagjá faults to the east, while to the south the demarcation is a direct line running from the highest point of Mount Arnarfell to the Kárastaðir farm, and to the north, a line running from Mount Ármannsfell directly east across the lava field to Hlíðargjá.

The archaeological remains at Þingvellir were preserved and registered by law in 1927. They are recorded in the "Register of Protected Remains".

HISTORY OF RESEARCH

Researchers have considered the locations of places and events in saga literature, surveyed old sites, made maps and published their findings. The oldest description of historical remains at Þingvellir dates from 1700; it describes the site of the Law Council and 18 booths. Later in the 18th century, further descriptions of the assembly site were published, including the locations of the booths of leading officials at that time. In addition to these descriptions, three maps of Þingvellir exist from the 18th century, the oldest from about 1781-82, and one from the 19th century.

Eight archaeological research and excavation projects have been carried out at Þingvellir since 1880.

An archaeological excavation by antiquarian Sigurður Vigfússon in 1880 was the first in the area. A pioneer of Icelandic archaeology, he went to Þingvellir specifically to excavate the ancient parliamentary site. He spent nearly four weeks on site, carrying out excavations and various other investigations of old structures. Sigurður Vigfússon's excavations were important and quite extensive as he carried out excavations in six of the area's best-known remains: The circular structure on Spöngin, the turf wall to the west of Spöngin, ruins in the field at Þingvellir farm, Njálsbúð, Snorrabúð and at Lögberg, which is now generally believed to be the site of Lögberg (the Law Rock).

In the period 1920-1945 Matthías Þórðarson, general director of the National Museum of Iceland, undertook an extensive study of Þingvellir. He wrote a number of papers and published a book on his findings, together with a map of the parliamentary site and booths. In an excavation which took place in 1920, he excavated Þorleifshaugur (Þorleifur's Barrow) in connection with an extensive study of the assembly site. According to oral tradition, it was the burial place of Þorleifur Jarlaskáld (Þorleifur Poet of Earls), who was slain at Þingvellir and buried "north of the Law Council". Matthías Þórðarson concluded that the contents of the barrow had been disturbed – i.e. it had been dug up before. The barrow appeared to be a man-made structure of considerable age. It contained a large amount of rock and he found slight traces of ash and charcoal.

A small excavation was carried out in 1957, when a double-crook crosier, dating from the 11th century, was unearthed when an electricity cable was being laid to Hotel Valhöll. It was found in a low-lying, uneven patch of grassy ground a short distance north of the eastern end of the bridge across river Öxará to the south of the Þingvellir farmhouse. Curator Gísli Gestsson visited the site and excavated there. The crosier was identified by Kristján Eldjárn, general director of the National Museum of Iceland and later President of Iceland, "as a tau cross or tau crosier. It consists of a socket in which the top end of a staff of cornel wood is still preserved – with two symmetrically placed crooks, all cast of bronze in one piece. The metal is now oxidized to a dark green and there are no traces of gilding. On both sides of the socket there are engraved lines running through loops of the well-known Ringerike or rune stone kind. The crooks are terminated by animal heads typical of the Urnes style, with an elongated pointed eye filling almost all the open space of the head, long twisted lip-lappets and degenerate head-lappets. The object must certainly be grouped with the monuments and the Urnes style and consequently it should very likely be dated to the third quarter of the 11th century, a period roughly coinciding with the term of office of the first bishop of Iceland."

In 1986, the Þingvellir Commission assigned the National Museum of Iceland to undertake the cataloguing of archaeological remains of human habitation at Þingvellir. In 1986-1992, an archaeological field survey was carried out at Þingvellir under the auspices of the National Museum

TABLE 2.4 *Archaeological research and excavation at Þingvellir.*

YEAR	ACTIVITY
1880	An archaeological excavation by antiquarian Sigurður Vigfússon in 1880.
1920	In the period 1920-1945 Matthías Þórðarson, general director of the National Museum of Iceland, undertook an extensive study of Þingvellir.
1957	A small excavation was carried out in 1957, when a double-crook crosier dating from the 11th century was unearthed in the course of construction works.
1986	In 1986, the Þingvellir Commission assigned the National Museum of Iceland to undertake the cataloguing of archaeological remains of human habitation at Þingvellir.
1998	In 1998, the Institute of Archaeology of Iceland commenced preparations and gathering of sources for an archaeological excavation on the area around Þingvellir church.
2002	A five-year archaeological project was launched in 2002 by the Institute of Archaeology of Iceland with the support of the Millennium Fund.
2009	In 2009, a small excavation took place in a limited area in front of Þingvellir church. The project started as a watching brief due to renovation of the pathway and the entry walkway to the church.
2010	Archaeological recording and surveying of monuments in Þingvellir National Park.

of Iceland. Visible man-made structures in the assembly area were recorded. A precise system of coordinates was mapped in the area of the ruins and a map was made of the area for use in planning work, including contours and the surveyed ruins. The area is delimited to the south by Hestagjá (Horse Gorge), to the north by Stekkjagjá (Sheep Fold Gorge), to the west by Almannagjá (Everymans's Gorge) and to the east by Nikulásargjá (Nikulás's Gorge). This survey was not expected to reveal much that was new, as the area had previously been mapped and surveyed. However, this method of recording yielded a far more accurate, and also much more disparate, picture of the area of the ruins than had been possible previously. The ruins could be classified as belonging to earlier and more recent periods of construction. At some locations, there are up to three or four habitation layers, built one on top of the other. In addition to remains in Almannagjá and on Hallurinn and the plain beneath, Biskupabúðir, structures on Spöngin and Stekkjagjá were recorded.

All remains visible on the surface were surveyed and plans drawn at a scale of 1:100, and the area was surveyed using a total station. These surveys formed the basis for the planning map prepared for the Þingvellir Commission around 1990.

In 1998, the Icelandic Institute of Archaeology commenced preparations and the gathering of sources for an archaeological excavation of the area around Þingvellir church. The excavation took place in 1999. A trench was dug, 10 m long and 2 m deep, extending from the northwest corner of the present church. Finds included the foundations of a 16th century church and traces of its structure and an assembly booth nearby. The results indicate that a farm was not established at Þingvellir until

FIGURE 2.59 *Planning map for Þingvellir 1990.*

after it had become an assembly site. A geo-radar survey was also carried out at several locations. The finds from the excavation included an intact silver coin which turned out to be Norwegian and dated from the period 1065-80. It is an imitation of a coin from the reign of Ethelred II or Knud the Great, which were minted in England around AD 1000 (997-1003). As far as is known, no identical coin, i.e. minted using the same die, has been found previously. Only one other 11th century Norwegian coin has been found in Iceland, at Bessastaðir in 1996.

A five-year archaeological project was launched in 2002 by the Institute of Archaeology of Iceland with the support of the Millennium Fund.[10] The key aims of the research were three-fold: Firstly to explore the extent and conditions of archaeological ruins at Þingvellir and to seek the outermost boundaries of the assembly site, secondly to research the general layout of assembly sites in Iceland and thirdly to examine the age, type and previous use of the ancient monuments at Þingvellir. Excavation and trial trenches were dug in eight different locations within the assembly site: the alleged site of Lögberg, at Njálsbud on the west bank of river Öxará, on the Spöngin next to the water-filled ravine Flosagjá. In Midmundatún, to the south of the Þingvellir house, previously unknown ruins were found and further ruins were recorded on the east side of river Öxará. The main consequences of this research were that some conclusions reached by earlier research in the area were criticised and further previously unknown ruins were discovered outside the areas commonly addressed in previous work. With respect to future research, the conclusion was that the emphasis should be placed on the area to the south of the Þingvellir house.

In 2009, a small excavation took place in a limited area in front of Þingvellir church. The project started as a watching brief prompted by renovation of the pathway and the entry walkway to the church. When remains began to appear, a rescue excavation was conducted. An older cobbled path was discovered In front of the church which might have belonged to an earlier church building. The path is undated but most probably post-dates 1500. A floor layer and a fireplace/hearth were discovered, possibly from an earlier booth. Little else remains of the booth. In total,

[10] The Millenium Fund was established by the Althing in 2001 to commemorate the 1000th anniversary of the Christianisation of Iceland.

1090 artefacts were found and recorded under 390 find numbers. Some were of particular interest, e.g. a copper weight of approximately 250 g and a silver coin from the 10th century.

Þingvellir National Park has been working on recording and surveying archaeological monuments in the park since 2009. The aim of this research is to catalogue and record all visible and known ruins within the park. The ruins are mapped using handheld GPS units with an accuracy down to 10 cm and inserted into the Þingvellir National Park´s GIS system. The surveying and recording work is being carried out according to the standards of the Cultural Heritage Agency of Iceland and all data are shared with them. The work has now covered the coastline, the assembly site and all known old farms in the national park. The project is in accordance with the principles set forth in the Þingvellir Management Plan 2004-2024 but also in line with the *ICOMOS* and *World Heritage Committee* recommendations upon Þingvellir National Park´s inscription on the *World Heritage List* in 2004.

JELLING (2)

HISTORY OF USE

The reconstruction of the development of Jelling relies on a varied chronological base comprising dendrochronological and ^{14}C dates, stylistic and typological dating of artefacts and buildings as well as conclusions drawn from the relative chronological relationships between the various buildings and monuments.

The dating evidence indicates three chronological phases in the development, each with a distinct architectural expression. All three stages fall within a very narrow time span. With the possible exception of the stone setting, which in principle could have been established at an earlier date, all precise dates and the architectural coherence of the various parts of the complex suggest that it came into existence during the 10th century.

Metal detector surveys have only yielded scattered single finds from the preceding centuries in the vicinity of the complex, most notably an imitation of at Madelinus tremissis from the middle or third quarter of the 7th century. An excavation within the present town of Jelling, 60 m south of the South Mound, revealed a house structure of presumably 9th or early 10th century type. The extensive excavations conducted within the palisade area and on the fields north of the complex (30 ha) have, however revealed no definite structural traces earlier than the 10th century AD. The available environmental data from the previous excavations in the mound also indicate an economically rather extensively used area dominated by heather. Consequently, the Jelling complex appears to have been established abruptly, and in a relatively empty and peripheral landscape.

The first phase encompasses the stone setting, the small rune stone and the North Mound and it is also possible that some of the building activities documented underneath the church or the chamber burial should be assigned to this early phase. The phase is dated to the first half of the 10th century, prior to AD 958/959. The relative-chronological relationship between the various elements is uncertain and it is possible that they all constitute a more or less contemporary phase. However, some form of sequence, probably with the stone setting as one of the earliest elements, is also possible. Of these earliest elements, the burial and monumental and possibly cultic aspects were dominant features, providing the architectural language with a consistent pre-Christian expression. The development of Jelling can consequently be seen as being anchored in an ancestral or genealogical reference, although so far of seemingly limited time depth. The monuments were apparently situated in an open landscape, which conveyed an element of "a new beginning" in the topographical context.

The second phase is represented by the large surrounding palisade, the three longhouses of Trelleborg type and a presumed auxiliary building within the northeastern corner of the palisade, as well as the large rune stone, the South Mound and possibly an extension of the North Mound or, alternatively, an intrusion into the grave chamber. One of the wooden buildings underneath the church probably also belongs to the phase. The stone setting was partly compromised by the new structures, particularly the South Mound. The linking of the palisade, and peripheral buildings along it, to this phase relies on a correlation of dates of very varied type. The large rune stone is dated to after c. AD 965 through its references to historical events. The mounds and the palisade are dated by means of dendrochronology. Assignment of the palisade and the Trelleborg-type houses to this phase relies on a typological dating of the buildings to the late 10th century, based on architectural concordance with the houses at Fyrkat and Trelleborg in both overall architecture and constructional details, such as the entrance annexes on the sides of the

buildings. The varied nature of the dating evidence implies a degree of uncertainty in the definition of the second horizon. Nevertheless, with present knowledge, this particular phase appears to be composed of largely contemporary elements constructed within a narrow time span later in the second half of the 10th century, and after AD 958/959.

In general, the second phase appears to have involved a thorough redefinition of the Jelling complex. In contrast to the burial expression of the first phase, a much stronger settlement element was introduced. The stone setting appears in part to have been disregarded and the previously openly accessible monument became enclosed within a massive and restricting palisade construction. On the other hand, the monumental expression is elaborated through the construction of the South Mound and the possible extension of the North Mound. A sense of continuity can also be inferred from the organisational principles; there appear to be links between specific features, with the length of the presumed stone setting corresponding to the fixed side length of the palisade. Moreover, the North Mound forms the centre of the complex as well as being the intersection point for the diagonals running between the corners of the palisade.

Unlike the previous two stages, the third phase was clearly an accumulation of non-contemporaneous elements. It gathered together various buildings from Medieval and Modern times, dating from the 11th century and onwards. A longhouse of late Trelleborg type intersecting the northern line of the palisade demonstrates that the latter had already vanished by the beginning of the 11th century, and neither this house nor other later buildings respect or refer to the layout of the palisade in their orientation or position.

At some point in the 11th century, the architecture of the buildings underneath the church appears to abandon the Scandinavian hall tradition, complying instead with that of wooden churches seen elsewhere in Northern Europe. At the end of the 11th or in the early 12th century, the tufa church was constructed. None of the buildings dating from the late 11th century onwards exceeds the average architectural standards seen in the villages of Jutland and this indicates a decline in the political importance of Jelling in the Middle Ages.

Altogether, the chronological information from Jelling suggests a dramatic development of the entire complex, involving major transformation of the overall layout over a narrow time span extending from around the middle of the 10th to the beginning of the 11th century.

LATER DEVELOPMENTS OF IMPORTANCE

The earliest history of the protection of the Jelling mounds, rune stones and church is unclear, but attention has been paid to these monuments since 16th and 17th centuries, when an interest in antiquities emerged. The large rune stone was uncovered in 1586 and in 1635 the king com-

FIGURE 2.60 *Free visualisation of the Jelling complex in the 10th century.* *Graphic by Gert Gram and Peter Jensen.*

manded that the two mounds be protected by surrounding them with stone dikes. In a way the monuments have been protected despite of changing practices and perceptions ever since. As soon as legislation for ancient monuments was introduced, the monuments were covered by the act. The palisade and palisade area was identified during investigations in 2006-2013 and measures to protect them are being executed in 2013.

HISTORY OF RESEARCH

TABLE 2.5 *Archaeological research and excavations around the Jelling monuments.*

YEAR	ACTIVITY
1586	Harald Bluetooth's large rune stone was exposed after becoming partly covered by activities in the church cemetery.
1704	An excavation was conducted in the North Mound on the initiative of King Frederik VI.
1820	Farmers from Jelling encountered a grave chamber in the North Mound.
1820/21	The grave chamber in the North Mound was investigated.
1861	Mineshafts were dug into the centre of both the North and South Mounds and the chamber in the North Mound was excavated and reconstructed.
1874	Perhaps the earliest frescos in Denmark were discovered in the choir of the church and copies were painted on the north and east walls.
1926	Frescoes were painted on the south wall to complete the decoration.
1941	The South Mound was subjected to major excavations. Stones from the ship setting were discovered beneath the mound.
1942	A trench was excavated into the centre of the North Mound.
1947/48, 1951	Excavations were carried out underneath the church and near the rune stones. Traces of earlier buildings were discovered.
1964-65	Pits dug to take large stones and stone traces were uncovered west of the church and the North Mound.
1965	Minor excavation in the nave of the church.
1976-79	Investigations in the church. Remains of large wooden buildings and a 10th century chamber grave were excavated underneath the church floor.
1981	Investigation of the foundation of Harald Bluetooth's large rune stone.
1992	Minor excavation of stone traces from the stone setting under the southern periphery of the South Mound.

TABLE 2.5

YEAR	ACTIVITY
1998-99	Excavations prior to the construction of the museum, Kongernes Jelling – Royal Jelling.
2001	Trial excavations west of the cemetery.
2004	Remains of a Late Iron Age or Viking Age longhouse uncovered in Møllegade, south of the monuments.
2005	Excavations on Gorms Torv. The first traces of the palisade were found, but with no possibilities for dating.
2006	Large toppled stones were discovered in a V-shaped arrangement north of the North Mound, presumably the northern point of the ship setting.
2007	Excavations north of the North Mound revealed traces of the palisade and Viking Age longhouse remains.
2008-11	The course of the palisade was established through a series of minor excavations. Large-scale excavations revealed systematically-placed Trelleborg-type longhouses on the inside of the palisade, dating the complex to the late 10th century. The course of the ship setting was pursued by targeted excavations. The surroundings of the Jelling complex were investigated by geo-physical survey and trial trenching.
2010	Auger surveys of the North and South Mounds were carried out to clarify their construction and the character of the Viking Age environment in Jelling.
2011	Investigations of the surroundings of the rune stones in connection with the protection of the stones and investigations of the church choir.
2012	Investigation of the church choir continued,
2012-13	Investigation of the southern part of the palisade and dating of the timber.

THE TRELLEBORG FORTRESSES (3)

HISTORY OF USE

Dendrochronological and ^{14}C dates reveal that the Trelleborg fortresses were built around AD 980, but probably only functioned for a period of 10 to 20 years. Given this date, the fortresses have traditionally been linked with Harald Bluetooth's efforts to unify and Christianise the Danish kingdom, as proclaimed on "King Harald's Stone" at Jelling. Another interpretation links the fortresses with the conquest of England and, accordingly, Harald Bluetooth's son, Svend Forkbeard. Whatever the details, the fortresses must be seen as a monumental and military manifestation of the central power of the Late Viking Age.

The Trelleborg-type fortresses of the Viking Age are characterised by a circular rampart with associated ditch and four gateways. All three monuments, Aggersborg, Fyrkat and Trelleborg, have a uniform and stringently symmetrical architectural layout. This is manifested in their circular form and the location of the four gateways according to the points of the compass – apparently regardless of the terrain. The fortresses have a strictly geometric street plan, a division of the internal area into quadratic blocks and within these four longhouses, c. 30 m in length and up to 8 m in width, arranged as a four-winged complex. A circular street runs around the inside of the rampart; outside the

rampart there is a ditch. Although fundamentally similar in construction, the three fortresses differ in detail, for example in internal diameter: Aggersborg is 240 m, Fyrkat 120 m and Trelleborg 136 m.

LATER DEVELOPMENTS OF IMPORTANCE

As a consequence of the construction of the manor of Aggersborggård in the Late Middle Ages, and its subsequent extension during the 20th century, the southern tenth of the fortress of Aggersborg no longer exists.

Trelleborg near Slagelse was recognised as an ancient monument in 1808. All the sites were scheduled during the course of the late 19th and 20th century: Trelleborg in 1873/1933, Fyrkat in 1964/1967 and Aggersborg in 1990. Furthermore, based on the archaeological excavations, the structures of the fortresses – such as their ramparts, ditches and the positions of the postholes for the longhouses inside the fortresses – have been marked out, and reconstructions of the longhouses have been built outside the fortresses of Trelleborg and Fyrkat.

HISTORY OF RESEARCH

Trelleborg was the first ring fortress to be excavated, between 1934 and 1942. Subsequently, the two other fortresses were discovered and more extensive excavations continued up until 1970. Following completion of these major archaeological investigations, apart from minor evaluations no further archaeological excavations have been carried out on the actual ring fortresses.

From 2007 to 2010, in connection with the project "The King's Fortresses", attention was focussed on excavations in the wetland areas close to the fortresses. The aim of these was to investigate possible relations between the fortresses and the military naval power of the time.

Aggersborg (3.1)

The ring fortress is located close to the Limfjord on a scheduled area of 11 ha with a marked circular bank, which occupies the position of the original rampart. As early as 1638, Aggersborg is mentioned in the so-called *Præsteindberetninger* (Clerical Reports) to the antiquarian Ole Worm – the first systematic gathering of information about ancient monuments in Denmark. The Danish National Museum carried out a survey and a description of the fortress in 1906: At that time only three-quarters of the circle was visible. The first actual excavations were conducted by C.G. Schultz between 1945 and 1952 (Schultz 1949). A smaller targeted excavation campaign was carried out by Mogens Brahde in 1954, and further excavations of the fortress were conducted by Olaf Olsen in 1970.

About half of the fortress has been investigated, and Else Roesdahl has analysed and published the majority of the evidence and finds from the site. The investigations revealed that the ring fortress corresponded to those at Trelleborg and Fyrkat but was much larger (Roesdahl 1984, 1986). Evidence of an earlier settlement from the 8th century was also located beneath the fortress. Towards the end of the 10th century, this settlement was demolished to make way for the fortress. In 1987, the Ministry of the Environment/the Danish Forest and Nature Agency initiated a scheduling process for Aggersborg in order to protect the last traces of the rampart structure from total obliteration. Until then, the area had been subject to intensive cultivation. In 1990, the National Museum of Denmark carried out targeted excavations of parts of the rampart with the ultimate aim of marking the structure (Ulriksen 1995). The scheduling was also completed that same year and had the intention of preserving and protecting the area's cultural-historical and archaeological assets, including safeguarding the Viking fortress of Aggersborg. The scheduling, which was completed in 1994, ensures public access to a small museum building and to the marked rampart and ditch.

Fyrkat (3.2)

Fyrkat was surveyed and described for the first time by Daniel Bruun in connection with the Danish National Museum's systematic surveys of the hundreds (i.e. districts) in 1894. The first excavations probably took place in 1943 without, however, actual building remains being discovered. More extensive excavations were conducted at Fyrkat between 1950 and 1963. Early in the course of these, C.G. Schultz was able to establish that Fyrkat was one of the Trelleborg-type fortresses and that it is also closely related to Aggersborg. Minor excavations were carried out at Fyrkat in 1973. Of the fortress' four quadrants, only three have been excavated. The finds are exhibited at Hobro Museum and at the Danish National Museum in Copenhagen. The results of the Fyrkat excavations have been dealt with in detail by Olaf Olsen, Holger Schmidt and Else Roesdahl (Olsen & Schmidt 1977; Roesdahl 1977). In continuation of the excavations the ramparts were reinstated, the ditch was re-cut and postholes were marked out in concrete.

In 1964, Fyrkat was scheduled together with its immediate surroundings of 60 ha. Three years later, in 1967, a further 76 ha were scheduled, resulting in a present total protected area of 136 ha. Most of the scheduled area is in private ownership and the protection constitutes primarily landscape scheduling which has the intention of protecting landscape assets. Since the end of the 1990s, parts of the river valley have stood under water during the winter because drainage pumps were turned off during this period. In 2008, this resulted in the initiation of a nature rehabilitation project with the creation of a lake in a small part of the river valley. This has had, and will continue to have, great significance for nature assets.

Trelleborg (3.3)

The first time Trelleborg was recognised as an ancient monument was in 1808. However, from the 17th century onwards, several cartographers had included the ring fortress on various maps, including one from 1768. The ramparts at Trelleborg were, however, first scheduled in 1873. Despite this, the area, including the ramparts, was still subject to destructive ploughing and damage until 1933, when the local motorcycle club had plans to build a racetrack within the monument. The National Museum of Denmark excavated the fortress area, large parts of the ramparts, the ditches and the outer enclosure between 1934 and 1942, under the direction of Poul Nørlund (Nørlund 1948; Petersen & Woller 1989; Andersen 1996). As this was the first of the ring fortresses to be recognised, it has given its name to the monument type. In addition to evidence of the actual fortress and the settlement, there were also Neolithic remains in the form of refuse pits and possibly parts of a causewayed enclosure of Sarup type (c. 3000 BC) as well as pits dating from the Early Iron Age.

On conclusion of the excavation at Trelleborg, the ramparts and ditches were marked and re-cut and the various features marked out in concrete. The scheduled area covers 8 ha. The finds from the excavations are on display either in Trelleborg Museum or at the Danish National Museum.

The project The King's Fortresses

Between 2007 and 2009, in connection with the project *The King's Fortresses*, small excavations in the form of trial trenches were conducted at all three fortresses. The aim of these was to map possible links between the Trelleborg-type fortresses and the maritime environment and military naval power of the time. The excavations resulted in many new results relevant to an understanding of the earliest royal fortresses of the Viking Age (A.S. Dobat 2009, 2010; A.S. Dobat et al. 2009).

The investigations at Aggersborg revealed very modest traces of features and finds from the Viking Age – a sherd from a semi-circular vessel and a bone skate. Metal-detector surveys in the area have, however, resulted in the location of weights, fibulas/brooches, fittings, buckles etc. Aggersborg's location links the ring fortress directly to the maritime environment, but the excavations did not uncover any finds suggestive of sea-faring/navigation or any form of shipyard function. They did, however, uncover astonishing traces of a new and previously undiscovered structure of presumed Medieval date. This has not as yet been examined in sufficient detail to permit comments to be made on the nature of the fortress and its buildings.

At Fyrkat, in addition to a modest finds assemblage comprising various wooden objects, rivets, a range of metal finds (including a knife blade and a weight), whetstones, quernstones of mica schist etc., a long canal-like structure of complex construction was discovered. Of the many possible functions suggested for this structure, a source of fresh water fits well with the lack of wells seen at the site. The water level in Mariager fjord was at least 0.5 m higher during the Viking Age than it is today, and Dobat is of the opinion that Fyrkat was incorporated within a maritime environment. He believes that navigation conditions at Fyrkat suggest that it was possible to sail up to the fortress in Viking ships, the construction of which allows them to navigate in relatively shallow waters. Even so, there are no finds to confirm that ships did sail to Fyrkat or that any form of shipyard activity has taken place there.

The excavations at Trelleborg revealed a previously unknown part of a ditch located to the west of the circular rampart and occupying a position where a possible western continuation of the already located ditch would be expected. The finds included various iron objects, pottery, weights, glass beads, whetstones and rivets. Due to the good conditions for preservation, large quantities of wooden finds, animal bones and textile remains were preserved. The wooden finds include wood chips and other wood waste, fragmented artefacts, half-finished components for comb-making and a painted, circular shield. This is Denmark's only example of a shield from the Viking Age and it is of the same type as those found in the ship burial at Gokstad in Norway. The shield originated from Western Norway and can, on the basis of dendrochronological analyses, be dated to the mid/late 10th century.

TABLE 2.6 *Archaeological research and excavations around the Trelleborg fortresses.*

YEAR	ACTIVITY
1934-42	Excavation of Trelleborg by P. Nørlund
1943	Minor investigation of Fyrkat by Z.K. Zachariassen.
1945-51	Excavation of Aggersborg by C.G. Schulz.
1954	Minor excavation of Aggersborg by M. Brahde.
1950-63	Excavation of Fyrkat by C.G. Schulz, O. Olsen and K. Thorvildsen.
1965-67	Minor re-excavation of postholes at Trelleborg by O. Olsen.
1970	Excavation of Aggersborg by E. Roesdahl and O. Olsen.
1973	Minor investigation of Fyrkat by O. Olsen.
1990	Trial excavation of Aggersborg before marking ditch and rampart by J. Ulriksen
2007-09	Project "The King's Fortresses" at Aggersborg, Fyrkat and Trelleborg.
2012	Minor investigation of Fyrkat in connection with repair of the existing marking of the postholes.

Dobat believes that Trelleborg was incorporated into a maritime environment and that it was possible to sail up to the fortress at the confluence of the two rivers, Tude Å and Vårby Å. He also believes that this potential was exploited. Structures and finds do appear to suggest that repairs to ships and ship-building did take place to a limited extent, but that Trelleborg did not have any particular role relative to ship-building and navigation in the Viking Age (Dobat et al. 2011).

The investigations carried out during the course of the project *The King's Fortresses* have added new information to the already existing picture of the ring fortresses of Aggersborg, Fyrkat and Trelleborg. The project's primary aim, to investigate the question of whether, and if so to what degree, the Trelleborg-type fortresses were linked to ships and navigation, remains however unresolved. No traces have been found either of actual shipyards or areas where extensive repairs to ships were carried out. Only at Trelleborg were traces of activities found which are related to work on ships. If Trelleborg had a special function in relation to ships, navigation and maritime warfare, this has not left any evidence in the form of large quantities of waste products from ship-building or repairs. These functions could have taken place elsewhere. In some cases, "snekke" place names suggest the former location of activities involving ships.

HEDEBY AND DANEVIRKE (4)

HISTORY OF USE

The linear defences of Danevirke dominated the Schleswig Isthmus before the 8th century AD. Depending on strategic requirements in the border area between the Danes, Saxon tribes and the Frankish and German Empires, they were extended and reinforced through repeated building activity and the addition of stretches of wall. As a consequence, in the course of half a millennium the largest archaeological monument in Northern Europe came into being. The Schleswig Isthmus also constituted the narrowest land bridge between navigable waterways

leading to the Baltic Sea and the North Sea. Serving here as a trans-shipment centre, Hedeby evolved in the Viking period from an open 8th century settlement into an international hub for trade and crafts which today provides us with excellent insights into the development of urban settlements in Northern Europe.

Little is known about the earliest building phases of Danevirke. Three superimposed pre-Viking Age wall phases have been securely demonstrated, dating from before AD 737. ^{14}C dates indicate their origins to be in around AD 690 (Andersen 1998: 189pp), while recent findings indicate even earlier dates (unpublished). The earliest two constructions were built as plain earthen banks. The third earthen wall was made by stacking layers of turves and attained a height of c. 3 m and a width of about 8 m. Small ditches ran along the front of the two earliest walls.

With respect to the area within the later Semi-circular Wall at Hedeby, stray finds indicate the presence of a settlement already in the 6th and 8th centuries AD, but the extent and form of this is as yet unknown.

Danevirke in the 8th century AD represents the most intense period of development of the entire fortification system. Since 1972, several dendrochronological dates from different sections have identified the years around AD 737/740 as one of the main building phases of Danevirke. In about AD 740 the Main Wall was enlarged and almost completely reinforced by a field-stone wall faced with timber. The Main Wall is up to 5.5 km long, 2.7 m wide and 3 m high and represents one of the largest structures in Northern Europe from this period. The stone wall, which used clay mortar, supports an earthen wall which was raised behind it, probably crowned by a timber parapet. In front of the wall a berm was constructed, creating an interval before the deep, wide defensive ditch. At the transition between lake Dannewerk and the swampy lowlands west of the Schlei, the North Wall, an earthen wall with a palisade-faced front and a ditch, was erected in AD 737. In the west, alongside the boggy carr bordering the river Rheider Au, the Crooked Wall was built and later extended several times. The Offshore Work, dated to the years between AD 730 and 740, was erected as a wooden structure of block construction at a particularly narrow point on the Schlei. At the entrance to Schwansen, an area settled by the Danish population and located to the south of the Schlei, the East Wall, whose two sections were constructed differently from the other sections of the wall, was constructed. The western section consisted of an earthen wall with a palisade-faced front. The eastern section was laid out as a simple earthen wall with a ditch in front.

Around AD 740, the earliest settlement emerged at Hedeby, in the area referred as the "Southern Settlement", south of the later Semi-circular Wall. This has been confirmed by both constructional features as well as associated finds, extending in date from the mid 8th to the end of the 9th century AD, which were recovered during the 20th century archaeological surveys. The surveys also identified a further cemetery south of the Semi-circular Wall. Use of the "South Cemetery" began around the middle of the 8th century AD, with the majority of the graves dating from the 9th to the middle of the 10th century AD. Besides hundreds of burials of various forms there are also chambered burials from the first half of the 10th century, some of which are richly furnished. Due to its extremely rich and magnificent grave goods, the most elaborate grave, the so-called boat-chamber grave, is associated with the Danish King Harald Klak who was buried around the middle of the 9th century AD. Three horses were accompanied a princely personage, as well as two attendants in a large chamber. All were placed beneath a ship of around 20 m in length and covered by a burial mound.

While archaeological research has answered many questions relating to the development of Hedeby, the dating of the so-called Hochburg, its function and its association with Hedeby remain uncertain. The Hochburg is a hillfort situated on a moraine ridge north of the Semi-circular Wall. Its rampart was probably built in two phases. The structure appears not to have been built up in the interior, although it was later used as a Viking Age burial place. Low barrows lie in the interior, apparently established in the Late Viking Age (8th/9th century AD) according to the date of this burial rite. The burials on the southern foot of the hillfort date from the mid 9th to mid 10th century. The quality of the finds indicates that individuals of high social rank were buried here.

During the course of Frankish expansion to the north, conflicts arose between Emperor Charlemagne the Great and the Danish King Göttrik. However, a *munimentum valli*, attested to in the Frankish Imperial Annals for AD 808, has not yet been backed up by archaeological evidence in the wall stratigraphy of Danevirke. Following the death of the king in AD 810, the river Eider was stipulated as the border between Frankish and Danish territories. Hedeby was also referred to in the Frankish Royal Annals as Sliesthorp for the first time in AD 804 and 808.

Figure 2.61 Map of Hedeby and Danevirke in the 8th century AD.

Archaeological survey has revealed that the Hedeby settlement became gradually extended from the early AD 800s. The shore areas served as hithes (i.e. small havens/landing places for boats) with an associated market. The intensive development of the settlement in the boggy zone by the water's edge eventually coincided with an expansion of the harbour facilities in the AD 880s. Landing stages, where heavy merchant ships could also berth, were built extending far out into the water. They also served the trading centre as a market area. Besides long-distance trading, economic life was also characterised by the intensive and highly specialised production of craft items made both for the home market and for export.

Typical of the settlement area close to the port was a high-density development of buildings complemented by wells, fences and roads. Consequently, as early as the middle of the 9th century AD, Hedeby had emerged as a maritime trading centre where traders from all points of the compass met, as confirmed by both historical sources and archaeological finds. Evidence for a mint and reports of a Christian mission in Hedeby underline the important role of the place: Minting of coins begun in the AD 820s and ceased in about AD 860; it was resumed towards the beginning of the 10th century. Numerous coins have been found which were produced in Hedeby. The reported building of a church about AD 850 by St Ansgar (d. AD 865), and the establishment of a bishopric about 100 years later, mark important missionary activities. In the late 9th century AD, Rimbert reported on Ansgar's travels with the Danish kings Göttrik (Gudfred) and Harald Klak, as well as on his journeys to Birka where he also established a church.

Other historical texts attest to the central role of Hedeby with respect to trade in Northern Europe: Around AD 890, an Old English text tells of the journeys of the Norwegian trader Ottar, who travelled from the trading place of Skiringssal, near the Gokstad mound in Vestfold, to Hedeby.

Already in the late 9th century AD, the settlement in Hedeby appeared to change. This is manifested in a more regular pattern of settlement, a more uniform expansion

Figure 2.62 Map of Hedeby and Danevirke in mid 10th century AD.

of infrastructure, better quality and more advanced house constructions and the further extension of the landing stages. In addition, areas further to the rear were developed for settlement purposes. Workshops were founded there, being mainly established in small sunken-floored buildings. Settlement also began now to encroach onto parts of the cemetery in the southwest of Hedeby. From the end of the 9th century AD, the landing stages were built successively further out into the water due to silting-up of the harbour basin and the simultaneous increase in the size of the cargo vessels. At the same time, they were extended into large platforms, presumably running along the entire length of the shoreline, which served also as a market place. The core area of the harbour, enclosed by both ends of the Semi-circular Wall, was surrounded by a port palisade which possibly marked a separate jurisdiction.

Due to its burgeoning economic significance and its border location, political leadership in Hedeby was at times contested by Danish and German rulers. Around the middle of the 10th century AD, Hedeby was fortified with the building of the Semi-circular Wall. Following numerous extensions, in its latest phases it attained a height of about 7 m, with an associated ditch of about 6 m in width and at least 2 m in depth. Through the building of the Connection Wall after AD 968, Hedeby became incorporated for the first time into the defensive system of Danevirke. All these stretches of the wall were built up as earthen walls with a covering of turves and with associated ditches.

In AD 974, the German Emperor Otto II launched a crusade against the Danes, conquering Danevirke in the process. Following liberation from German rule soon after AD 983, it is highly probable that the building of Kovirke resulted in the shortening of the defensive line and meant that Hedeby was no longer located on the frontier, but was now situated behind the fortified border of the Danish kingdom. Kovirke comprised an earthen wall with a palisade-faced front, a berm and a V-shaped ditch. Given the structural and chronological analogies, the building of Kovirke is likely to have been carried out on the orders of King Harald Bluetooth of the Jelling dynasty.

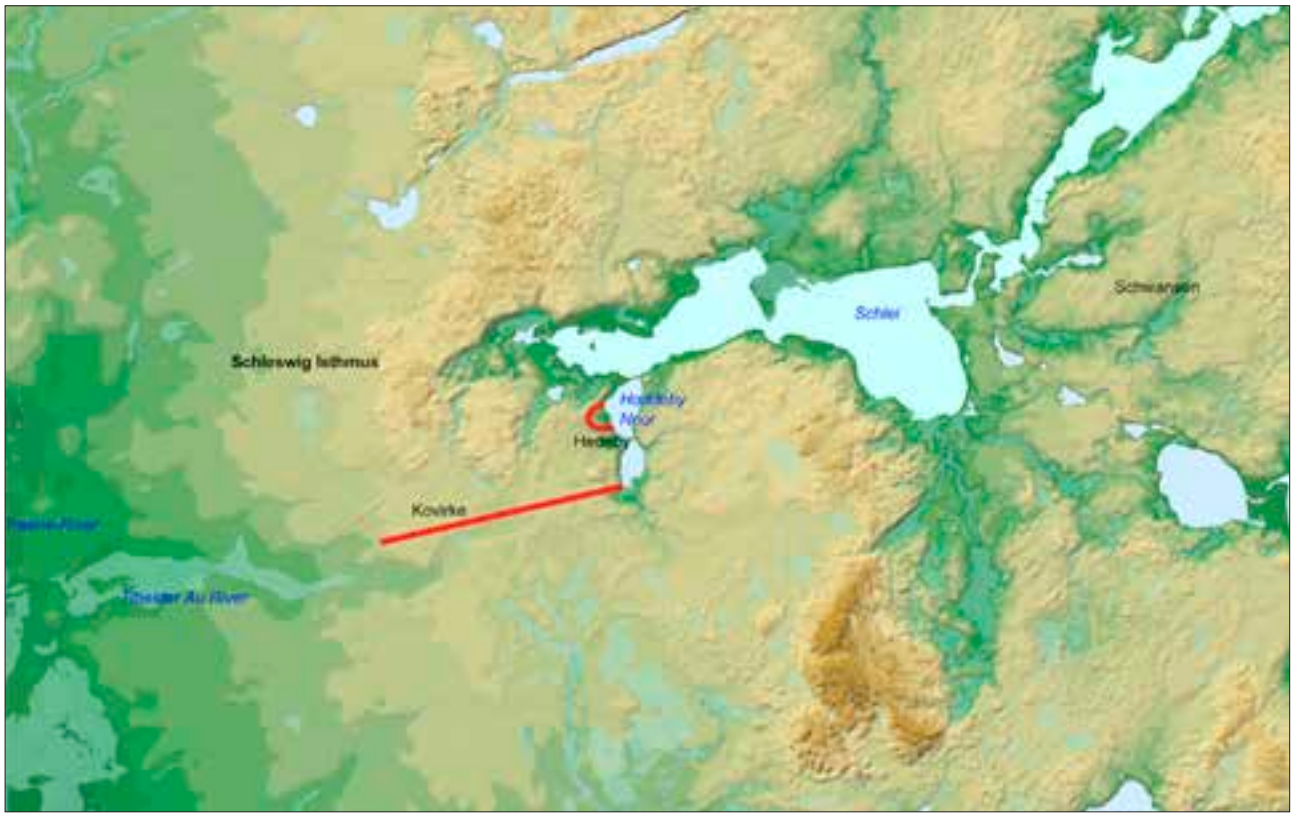


Figure 2.63 Map of Hedeby and Danevirke in the late 10th century AD.

The archaeological evidence for the settlement in Hedeby in the 11th century is elusive. However, it is certain that the place was occupied until the middle of the century. The port experienced its final extension in the early 11th century. In the middle of the century, the town suffered destruction on several occasions. Conquests by the Norse and the Slavs are recorded historically in the years AD 1050 and 1066. Political and ecclesiastical meetings at the highest level are, however, evidence of the undiminished significance of Hedeby at this time. Sporadic settlement activities in areas more distant from Haddeby Noor within the Semi-circular Wall have been demonstrated until the end of the 11th century. In the late 11th century, the Medieval settlement of Schleswig emerged on the northern shore of the Schlei. Notably, its name was derived from the Frankish, German and Saxon names for Hedeby *Sliesthorp/Sliaswich*. Schleswig was to maintain and expand the outstanding functional significance of Hedeby as a transhipment centre between the North Sea and the Baltic for a further 200 years before this role was taken over by the Hanseatic town of Lübeck.

LATER DEVELOPMENTS OF IMPORTANCE

At a time of increasing attempts by the Germans to extend their influence beyond their northern border, Danish King Waldemar (d. 1182) had the front of the Main Wall reinforced with a wall of brick. This is the largest and the oldest secular brick structure in the region. The double-shell construction, some 5 m high and 2 m thick, reinforces an earthen wall located behind it over a distance of at least 3.7 km. The wall was presumably equipped with a parapet. Remains of kilns in the immediate vicinity of Danevirke attest to the on-site manufacture of bricks and lime mortar. Danevirke eventually lost its significance in the course of the Middle Ages.

From the 13th century onwards, Danevirke fell into ruin. The brick wall was used as a quarry for building material in subsequent centuries. Parts of the ramparts were ploughed up or dug away.

The memory of Hedeby faded completely during the Middle Ages. Instead, the remains of the Semi-circular Wall became associated with a German fortress reportedly

Figure 2.64 Map of Danevirke in the 12th century AD.

erected by Otto II in the 10th century in order to secure his conquered lands and therefore went under the name "Oldenburg". In the early 18th century a pheasantry for the court of Gottorf castle in Schleswig was situated inside the Semi-circular Wall; this has left no visible traces.

As a consequence of nationalist movements all over Europe beginning in the late 18th century, by the middle of the 19th century Danevirke emerged as a Danish national symbol for defence against the Germans. Consequently, the Danish Military erected a new fortification line at Danevirke in late 1850 as a defence against an army of insurgent pro-German Schleswig-Holsteiners. This line was further greatly extended in 1861-63 with the construction of 27 large bastions which badly affected the old earthen ramparts. While many of the earthworks have been razed to the ground, others are still clearly recognisable. One redoubt was restored between 2002 and 2004. Less than a century after the 19th century reinforcements, Danevirke again played a part in a military conflict. During World War II, anti-aircraft defences of the German armed forces were erected on parts of the Main Wall and the Crooked Wall. An anti-tank ditch which had been dug directly in front of the Waldemar's Wall was back-filled in 1946.

Since the early 19th century, several attempts were made to conserve the ramparts of Danevirke for posterity by taking land into state ownership. Legal protection only became possible after the appropriate acts were passed following World War II. Parts of Hedeby and Danevirke became legally protected by conservation order in 1950 (Nature Protection Area) and since 1965 they have both been scheduled monuments (and have preservation orders to safeguard them).

As important steps relative to the exhibition of the finds and the interpretation and communication of the sites, museums were built in 1985 near Hedeby (Wikinger Museum Haithabu) and in 1990 at Danevirke (Danevirke Museum). Reconstructions of a fortification from 1864 and of Viking Age houses were erected in Hedeby and at Danevirke in 2003-2008.

TABLE 2.7 *Archaeological research and excavations at Hedeby and Danevirke (selection).*

YEAR	ACTIVITY
1861-64	Documentation and surveys during the building activities for fortifications by Danish troops at Danevirke by G.F. Hammann and J. Kornerup.
1900-1934	Survey and small excavations within the Semi-circular Wall by W. Splieth, F. Knorr and H. Jankuhn. Verification of the place as the historical Hedeby (Knorr 1912; Jankuhn 1937, 1984).
1908	Excavation of the boat-chamber grave by F. Knorr (Knorr 1911; Müller-Wille 1976).
1935-39	Excavations of the low-lying settlement area inside the Semi-circular Wall by H. Jankuhn (Jankuhn 1937, 1943).
1933-36	Excavations at the Main Wall of Danevirke by H. Jankuhn and G. Haseloff (Jankuhn 1937).
1963-69	Investigation of burials and settlement area inside the Semi-circular Wall by K. Schietzel.
1963/64, 1966-69	Large excavations of burials and settlement area inside the Semi-circular Wall by K. Schietzel (Schietzel 1981; Schultze 2008).
1963-1965, 1970	Large excavations at the Southern Settlement and the South Cemetery by H. Steuer (Steuer 1974).
1972	Excavation of massive wooden substructures at Danevirke by H. Andersen; first dendrochronological dating to AD 737 (Andersen 1976).
1979-1980	Excavation of harbour area and wreck of longship by K. Schietzel (Kalmring 2010).
1991-1993	Series of excavations at the Main Wall, Kovirke, Semi-circular Wall, Connection Wall and North Wall of Danevirke by H. Andersen (Andersen 1998).
1992-97	Survey of the Offshore Work by W. Kramer; dating to AD 730/740 (Kramer 1995).
2002	Geo-physical survey inside the Semi-circular Wall (Neubauer a. o. 2003; Carnap-Bornheim & Hilberg 2007).
2005-2010	Excavation of a few pit-houses in the northwest quarter within the Semi-circular Wall by Stoltenberg and A. Tummuscheit.
2009-2013	Excavation of a gate in the Main Wall of Danevirke by A. Tummuscheit.
Since 2003	Metal-detector survey inside the Semi-circular Wall.

HISTORY OF RESEARCH

Already in the Danish historical writings of the 12th century, the old wall system is described as *danæwirchi* and *opus Danorum* (work of the Danes). To authors such as Saxo Grammaticus, whose work on Danish history *Gesta Danorum* was produced in AD 1170-1180, it symbolised Danish drive and greatness. From the 16th century onwards, the walls once again aroused literary and cartographical interest. Yet it was not until the 19th century that Danevirke became the subject of serious and comprehensive accounts and interpretations.

Archaeological investigations were carried out when the redoubts were built on Danevirke in 1861. Archaeological investigation into Hedeby began somewhat later, as the historically attested town of *Haidaby/Schleswig* had fallen into oblivion after the Middle Ages. Only in 1895 was the Copenhagen archaeologist Sophus Müller able to equate the settlement enclosed by the Semi-circular Wall with the place referred to as *Haidaby* on two neighbouring rune stones (Müller 1897). Just a few years later, in 1903, Carl Neergaard and Sophus Müller published the first scientific archaeological work on Danevirke. A long series of comprehensive excavations on Danevirke and at Hedeby ensued. However, the identification of Hedeby was only confirmed through the investigations by W. Splieth and F. Knorr which extended over many years between 1900 and 1921. Important results were produced, in particular by the excavations of Günther Haseloff and Herbert Jankuhn at Danevirke and in Hedeby in the 1930s. The discovery of Hedeby's South Cemetery led to excavations in the 1960s. Also in the 1960s, Kurt Schietzel began large-scale excavations in the settlement area of Hedeby, culminating in the excavation of the port in 1979-80. Further information concerning the construction and dating of Danevirke was gained through the excavations of Hans H. Andersen and Willi Kramer which were carried out in the 1970s and 1980s. In 2002, geo-magnetic surveys were conducted over a large area within the Semi-circular Wall. In the course of this new research project, the finds and findings resulting from previous excavations will also be systematically re-evaluated. The latest investigations comprised the excavation of a few pit-houses in the northwest quarter within the Semi-circular Wall in order to obtain evidence comparable with the results of the geo-magnetic and metal-detector surveys carried out inside the Semi-circular Wall during the last few years.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

HISTORY OF USE

The initial habitation of Grobiņa goes back to the Stone Age (Petrenko & Virse 1990), but it was only at beginning of the 1st millennium AD that Grobiņa became a centre for a tribe of Western Balts – the Curonians. In the 7th century AD, Scandinavians arrived in the Grobiņa region which then became a centre for long-distance trade (Sturms 1949) and probably also agrarian settlement. At that time, Grobiņa was connected to the Baltic Sea by river Ālande and was accessed by seagoing ships via river Ālande and lake Liepāja. The Baltic Sea linked Grobiņa with the biggest administrative, trading and military centres of the Viking world. As a result of interactions with local Curonians, the Scandinavian settlers of Grobiņa developed a peculiar form of symbiosis between different ethnic groups. This is represented in artefacts, dwelling and burial sites. Up into the 9th century AD, Grobiņa expanded into a well-known proto-urban settlement of Scandinavian settlers and Curonians. This is demonstrated by grave goods found in flat-grave burial grounds (Smukumi, Priediens, and Atkalni), burial mound sites (Priediens, Pormaļi) and the hillfort Skabārža kalns, with its settlement (Nerman 1931, 1958; Petrenko & Urtāns 1995, 2012). At the Priediens burial mound site a picture stone was discovered, the first of its kind discovered outside Scandinavia (Petrenko 1991; Lamm 1991). Grobiņa could possibly be the town of Seeburg mentioned in the Chronicle of the Archbishop of Bremen, *Vita Anscarii*, in which the attack in AD 854 by King Olaf of Sweden is described. It seems likely that the presence of Vikings was connected with a wider territory in the vicinity of Grobiņa.

LATER DEVELOPMENTS OF IMPORTANCE

After extensive use in the 7th – 9th century AD, Grobiņa's Scandinavian cemeteries changed and there are examples of assimilation between Curonian and Scandinavian grave customs.

The Curonian territory is mentioned in an agreement from 1230, between a legate of the Pope Baldwin von Alna and the local king Lammechinus. Under the name of Grobin, the territory was mentioned for the first time in 1253 in an agreement dividing up the territories of Curonia, but in 1263 the Curonian wooden castle of Grobin was captured and burnt. In 1269, the Livonian Order stone castle was

TABLE 2.8 *Archaeological research and excavations at Grobiņa burials and settlements*

SITE	SUPERVISOR OF EXCAVATIONS	YEAR OF EXCAVATIONS	STORAGE OF MATERIALS*
Grobiņa hillfort (Skabārža kalns) and settlement	F. Balodis, B. Nerman	1929, 1930	NHM
-"-	J. Daiga, J. Sudmalis	1955	LpM
Grobiņa burial field (Pastorat, Priediens, Priedulāji)	F. Balodis, B. Nerman	1929,1930	NHM
-"-	P. Stepiņš	1951, 1969	LpM
-"-	J. Daiga	1957	ILH
-"-	I. Ozere, V. Petrenko	1984, 1986, 1987	LpM, ILH
-"-	J. Asaris	1985	NHM
-"-	V. Petrenko	1986, 1987, 1988, 1989	LpM, IA
Smukumi burial field (Grobiņa gravel pits, Rudzukalni	F. Balodis, B. Nerman	1929, 1930	NHM
-"-	P. Stepiņš	1962	LpM
-"-	V. Petrenko	1987, 1988, 1989	LpM, IA
Priediens settlement	V. Petrenko	1988, 1989	IA
Atkalni burial field	V. Petrenko, I. Virse (Ozere)	1988	LpM
Porāni burial field (Pūrāni)	F. Balodis, B. Nerman	1929, 1930	NHM

**NHM – National History Museum of Latvia (Riga, Latvia)*
LpM – Liepāja Museum (Liepāja, Latvia)
ILH - Institute of Latvian History (Riga, Latvia)
IA- Institute of Archaeology (St Petersbourg, Russia)

built next to the Curonian hillfort of Skābarža kalns. A further populated area was established around this castle and the town was given its charter in 1695.

The archaeological ensemble of Grobiņa is defined as an undivided monument. One of its component parts (site in the nomination) – Grobiņa medieval castle with bastions – is not directly related to the Nordic archaeological heritage, but the castle was built in the immediate vicinity of Grobiņa hillfort. Between the medieval castle and Grobiņa hillfort, cultural deposits testify to the presence of an ancient Norse settlement. Researchers believe (although it is not yet proven) that the medieval castle was built on the site of this ancient settlement. These findings testify to the continuity of the site's development through history. The medieval castle, together with Grobiņa hillfort, shapes a visually unified ensemble and its presence in the component part will avoid an artificial splitting of the archaeological ensemble.

During the course of the 20th century, Grobiņa developed into a modern town and as a result, modern buildings and industrial activities have emerged around the archaeological sites. However, the Grobiņa archaeological monuments were included in the state monument lists (1959, 1969 and 1984). Since 1998, Grobina's archaeological sites have been included in the actual National Heritage Lists and are protected under the current Law on the Protection of Cultural Monuments. (see Figure 2.27).

HISTORY OF RESEARCH

Since 1929, extensive archaeological excavations have been conducted in and around Grobiņa. Archaeological finds from Grobiņa are known from as early as the end of the 18th century. Extensive archaeological excavations at a number of the archaeological sites in Grobiņa were conducted by Francis Balodis and Birger Nerman in 1929-1930. The results of their investigations were published in separate monographs (Nerman 1958). Excavations of smaller extent took place after World War II under the supervision of Pēteris Stepiņš in 1951 and 1969 and Jolanta Daiga in 1957. Unfortunately, the results of these excavations were not published. In 1984-1989, Grobiņa's archaeological sites were investigated by Valerij Petrenko and Ingrida Virse. The results of these excavations were published in various articles and in two books (Virse & Ritums 2012 and Petrenko & Urtāns 2012.) Archaeological investigations using non-destructive methods were resumed in 2010, covering vast areas of settlements and burials in order to establish the precise extent of the archaeological sites and the character of the cultural deposits. On the hillfort and settlement, a geological auger survey showed that the cultural deposits were up 4 m in thickness. Furthermore, the research revealed the traces of a settlement covering 20 ha on the banks of river Ālande (Virse & Ritums 2012).

THE VESTFOLD SHIP BURIALS (6)

HISTORY OF USE

The historical importance of the county of Vestfold and its ship burials has been recognised by generations of researchers due to the skaldic poem *Ynglingatal*. *Ynglingatal* lists 27 generations of the Ynglinga lineage of petty kings, and the final six of these are associated with sites in Vestfold and Oppland. While the dating and historical accuracy of *Ynglingatal* have been disputed (e.g. Krag 1991; Skre 2007a; Birgisson 2008), *Ynglingatal* has nonetheless created a context in which the ship burials have been interpreted (Brøgger 1916). Not surprisingly, a tradition developed for perceiving the ship burials at Borre, Oseberg and Gokstad as the graves of individuals described in *Ynglingatal*: The poem states that Halfdan the Mild was buried at Borre, whereas the elderly woman in the Oseberg mound has been equated with Queen Åsa Haraldsdottir and the man at Gokstad with Olaf Geirstad-Alf (Brøgger 1924-26). Even though the practice of interpreting the mounds as the final resting places of the Ynglinga lineage is no longer as strong, the ship burials are nonetheless the most readily visible features of Vestfold's affluent chieftain lineages of the 7th to the early 10th century AD and, in particular, the 9th and early 10th centuries.

The settlement and burial ground at Borre is the oldest of the Vestfold complexes, with burial mounds dating back to the 7th century AD. Approximately two large mounds were built each century during the period AD 600-950. One of the two latest was the Ship Mound.

The finds from the Ship Mound were first dated using the design of the harness which led to the definition of what is now termed the Borre style (Graham-Campbell 1980; Fuglesang 1992). The Borre style is characteristic for the period from c. AD 850 to the mid 900s, and radiocarbon dating of the oak remains of the ship dates it to AD 690-890. As such, the construction of the burial mound is dated to AD 900-920. Consequently, the Ship Mound is the latest of the three large ship burials in Vestfold.

The Oseberg ship is the oldest of the three ships and, together with finds from Borre, the wood carvings found in the mound gave rise to the definition of the Borre-Oseberg style (Graham-Campbell 1980; Fuglesang 1992). Accordingly, the ship was dated stylistically to the first half of the AD 800s. Later dendrochronological analyses have revealed that ship was built in AD 820 and that it was 14 years old when it was used as a burial ship and placed in the burial mound for two women in AD 834 (Bonde & Christensen 1993: 157). It is estimated from the excavations that when the mound was built, approximately 33 ha of peat gathered from the surrounding area was used and 70 m^3 of rock was cut from the hilly slope towards the northeast (W.C. Brøgger 1917: 184, 187; Holmboe 1917). Calculations indicate that slightly less than 100 m^3 of clay was extracted in order to place the ship in position (W.C. Brøgger 1917: 183). Furthermore, pollen analysis revealed that the construction of the mound took several months (Holmboe 1917).

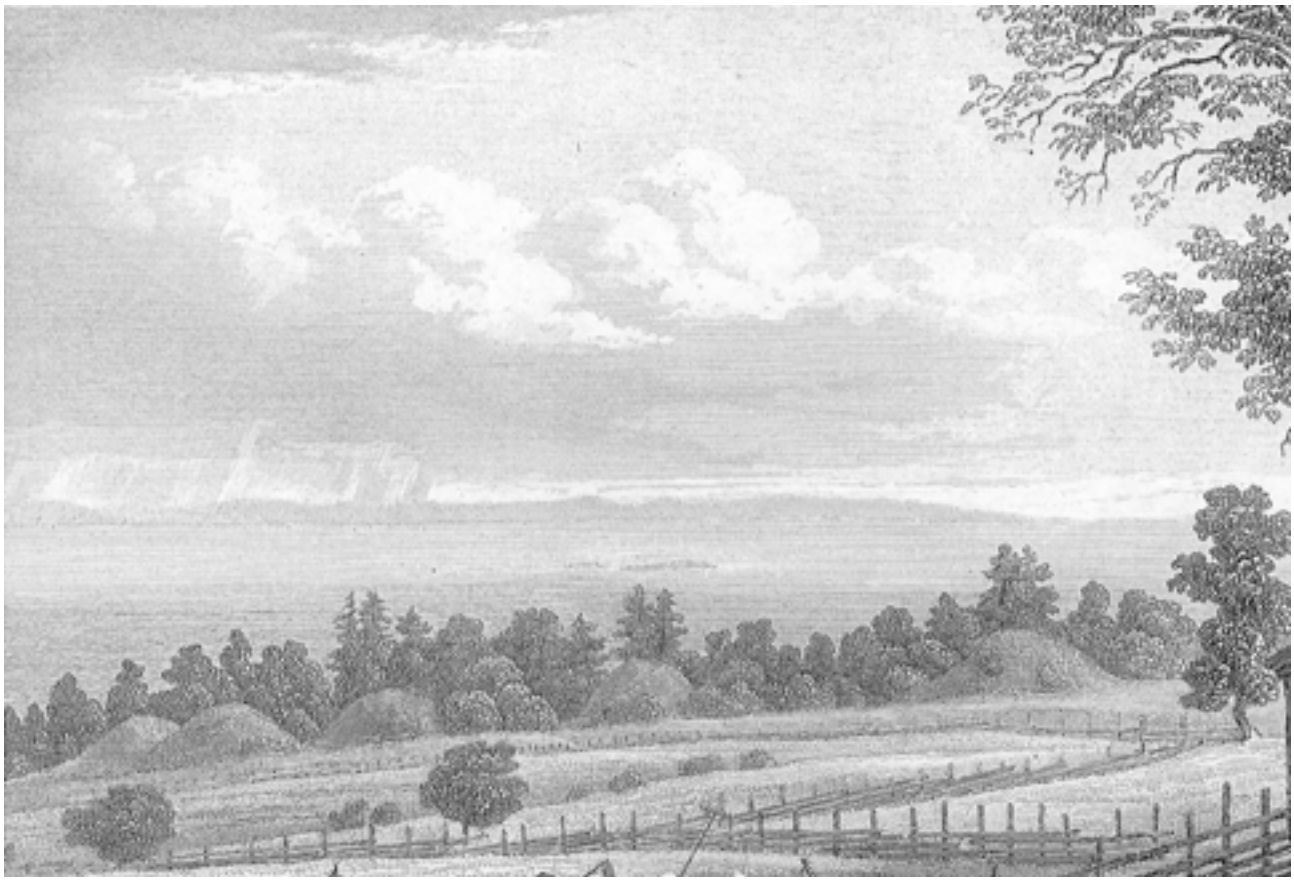


FIGURE 2.65 *The artist Johannes Flintoe was the first to draw the burial site at Borre; this was in 1832. The engraving was published in Jacob Aall's* Snorre Sturlesons norske Kongers sagaer. *The Ship Mound is on the right-hand side. The mound was removed in 1852 and its contents were used to build a road. Engraving: Johannes Flintoe, 1832. Owned by the National Gallery/The National Museum for Art, Architecture and Design.*

TABLE 2.9 *The ships, year of building and burial.*

PLACE	YEAR OF SHIP-BUILDING (AD)	YEAR OF BURIAL (AD)
Borre	690-890 [11]	900-920
Oseberg	820	834
Gokstad	c. 890	895-903

The Gokstad ship was built in about AD 890 and placed in the burial mound for a man between AD 895 and 903 (Bonde & Christensen 1993; Bill & Daly 2012). The ship was positioned in a trench and packed with clay and hazel branches. The grave chamber was built behind the mast and an inner mound construction, made of turf and peat measuring 20 m in diameter, covered much of the ship. Silt, sand and soil were added on top of the inner mound. The completed mound was originally at least 50 m in diameter and probably 6 m high.

[11]

Mound no.	Reference no.	14C date	Calibrated 14C date
Mound 1, oak	T-8844	1235±95	AD 690-890

Most probably built between AD 890 and 910.

TABLE 2.10 *History of conservation of the Vestfold ship burials.*

EVENT	BORRE MOUNDS	OSEBERG MOUND	GOKSTAD MOUND
Automatically protected area	1905	1905	1905
Restoration		1947	1928
Protection of the area	1990		
Park demarcation	1932	1972	1928, 1995
Information boards	1992, 2013	1998	1928, 1995
Overall plan for maintenance	2007	2013	2013

By exploring the areas immediately surrounding the locations of the mounds, it is possible to gain an understanding of the mounds as symbols of power and governance. About 400 m to the south of the Gokstad mound a small burial ground with boat graves and a settlement site were discovered by the Viking Age shoreline. Both the burial ground and the settlement contained objects dating from the period AD 850-950 (Gansum 1997b; Bill 2013). Consequently, the mound was constructed when the settlement and burial ground were in use and it can therefore be interpreted as a marker indicating control over land and possibly also the shoreline settlement (Hinsch 1944; Gansum 1995a). Similarly, geo-radar surveys have revealed the remains of two large guild halls and a 47 m long building just outside the burial ground at Borre (Trinks et al. 2007). None of these buildings has been excavated, but tentative dating suggests that the hall buildings may be from the 7th – 8th century AD and that at least one phase of the longhouse could date from the late 10th century. Furthermore, a harbour has now been securely located at Borre and this can be dated due to shoreline displacements, which indicate that it was constructed between AD 600-900 (Doneus et al. in press). The presence of guild halls, longhouses and the harbour makes it possible to link the Borre burial ground securely with the chieftain's estate. Together, these findings provide a clear picture of Borre as a stronghold for the petty kings in this part of Norway.

All the large mounds at Borre show signs of having been reopened as early as the Viking Age, as they have large depressions evident at their centres. With the aid of pollen analysis, the opening of the grave in Mound 7 has been dated to AD 820-1040 (Høeg 1990). The Oseberg mound is known to have been opened on several occasions, one of which is dated to the period AD 953-1050, but most probably before 975 AD. This means that the mound was reopened only 130-150 years after the grave was initially closed (Bill & Daly 2012; Brøgger 1945). The skeletons were pulled out of the burial chamber and partly damaged, and some of the grave goods were also removed. During the archaeological excavation in 1904, a considerable number of the finds were discovered in the passages used to break into the mound. Similarly, the Gokstad mound was opened during an important public event after AD 939 and before AD 1050; which most probably took place during the politically turbulent years of the 970s (Bill & Daly 2012). On this occasion, the skeleton of a man was pulled out from the burial chamber, paralleling actions that took place at the Oseberg mound during the same period.

LATER DEVELOPMENTS OF IMPORTANCE

Following the grave robberies in the Viking Age, the mounds remained untouched and the surrounding landscape continued as open agricultural land. Only in 1852, when a new road was constructed, was the Ship Mound at Borre destroyed by the Roads Authority and archaeological interest in the mounds was trigged. Gokstad and Oseberg remained intact until their partial excavation in 1880 and 1904.

The Vestfold ship burials have been protected by the Cultural Heritage Act since 1905, and the burial grounds of Borre as a park since 1927. Moreover, it is essential to bear in mind

that the partial excavation, protection and promotion/communication of these ship burials became absolutely central to early nation building in the newly independent Norway (Brøgger 1915, 1916, 1921a, 1921b, 1924-26, 1929, 1930, 1937). It is within this context that the restoration of the Gokstad and Oseberg mounds must be seen. Both restoration projects were begun in the 1920s as a means of bringing the then open graves back to their former glory.

The Gokstad mound was restored after a restoration plan was drawn up in 1925 (Møller 1979). Work to restore the mound consumed approximately 2000 m^3 of earth. Finally, in 1928, a lead coffin containing the skeletal remains was transferred to a stone coffin and placed in the mound. The process of restoring Oseberg also took shape in the 1920s, but was first inaugurated in 1948 when a sarcophagus of red granite containing the human remains was placed in the mound (Falkgård 1973; Gansum & Risan 1999).

In the aftermath of the restorations, the areas surrounding the mounds were upgraded; the Oseberg mound was enclosed within a stone wall in the 1970s and in the 1990s a sign-posted path leading up to the mound was completed.

Similarly, the Gokstad mound was upgraded in the 1990s, when a nearby dwelling was demolished and the landscape once again became more open. The stone wall was extended and restored and a car park was established. Towards the west, a curved information wall was built (Frost 1997).

Borre Park has been public property since 1932, but, due to its role as the gathering place for the National Socialists between 1935 and 1944, it fell into neglect after World War II (L.N. Myhre 1994; Hansen 1997; Østigård & Gansum 2009). Only in the 1990s did the site once again become involved in research and dissemination. In 2000, the Midgard Historical Centre was opened as a means of communicating the Viking history of the park and the county more generally, and in 2013 a reconstruction of a guild hall was completed.

HISTORY OF RESEARCH

The archaeological remains of the Vestfold ship burials are considerable and all three sites have been documented through archaeological excavations and research (Nicolay-

FIGURE 2.66 (*left*) *The world had never seen a Viking ship before the Gokstad ship was excavated in 1880. Thousands of people flocked to the excavation site. The gable of the burial chamber is clearly visible in this picture.* ©*unknown, 1880.*

FIGURE 2.67 (*right*) *On Monday 13 June 1904, the ground was first broken on the Oseberg mound. Here is the excavation crew, photographed on 21 September that same year. Professor Gabriel Gustafson, third from the left, headed the excavation. The cut section under the onlookers clearly shows how the mound was erected. There is still a significant amount of scientific material conserved in the restored mound.* ©*Olaf Væring, 1904.*

sen 1854, 1882; Brøgger 1916). The degree of documentation and the methods of excavation and conservation used in the earlier excavations, conducted between 1852 and 1904, were in themselves ground-breaking and those at Oseberg in particular were ahead of their time.

As a consequence, the partial excavation of the sites became central to the development of the discipline of archaeology (Gansum 2004). Following these first excavations, all three sites have been subject to archaeological investigations to varying degrees:

TABLE 2.11 *History of research of the Vestfold ship burials.*

EVENT	BORRE MOUNDS	OSEBERG MOUND	GOKSTAD MOUND
Main archaeological excavation	1852	1904	1880
Later archaeological investigations	1927, 1978/79, 1988-1992, 1994		1902, 1994, 1995
Significant finds	1852, 1927, 1989, 2007	1904	1880, 1995
Research / documentation project	1988-1992	2003-2009	2011 (-2014)
Geo-physical survey	2004, 2007, 2009, 2012, 2013		2007, 2009, 2011
Aerial photography	1988, 1992/93, 2011	1992, 2011	2011
Lidar scanning	2008		2008
Reopening, removal of skeletal fragments		2007	2007

Archaeological excavations and surveys were carried out at Borre in: 1) 1927, when Hougen & Engelstad (1927) partially excavated some of the smaller mounds of the complex; 2) 1978-1979, when Professor Marstrander surveyed Spellemann's Mound prior to its restoration; 3) 1988-1992, when Professor Myhre directed the Borre Project which surveyed the areas within and outside Borre Park as a means of locating the settlement associated with the burial ground and re-excavated the site of the lost Ship Mound (Myhre 1992a, 1992b, 1994, 2003, 2004, in press; Myhre & Gansum 2003; Jerpårsen 1996: 160); 4) 2007, when the Swedish National Heritage Board (UV-Teknik) conducted geo-radar (geo-physical) surveys on behalf of Vestfold County Authority and detected postholes belonging to two hall buildings located just outside the gate of Borre Park (Trinks et.al. 2007; Gansum 2009); 5) 2009, when a new geo-radar (geo-physical) survey was carried out by the 3D-Radar firm and the Norwegian Institute for Cultural Heritage Research which confirmed discovery of the hall buildings; 6) 2013, when a large-scale winter geo-radar (geo-physical) survey was carried out by the Ludwig Boltzmann Institute for Archaeological Prospec-

FIGURE 2.68 *Extraction of quernstones, Directorate for Cultural Heritage.* ©*Kim Søderstrøm/Jørgen Magnus.*

tion and Virtual Archaeology revealing a third and even larger longhouse in the field between Borre Park and Borre church.

No further excavations have been conducted at the Oseberg mound since the main excavation. However, in 2007 the skeletal remains, which were reburied in 1948, were removed in order to ensure their protection for future generations.

Following the main excavation of Gokstad, a minor excavation took place in 1902 whereby more of the mound's construction was documented (Sørensen 1902; Gansum in press). As with the Oseberg mound, the skeletal remains, reburied in 1928, were removed in 2007 as a means of ensuring their protection for future generations. Since then, the mound has been subjected to geo-radar survey and the Museum of Cultural History is presently conducting the research project *Gokstad revitalised* (2011-2014) which aims to re-examine the Gokstad finds and the landscape surrounding the mound.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

HISTORY OF USE

Archaeological investigations of the quarry area show that quernstone production at Hyllestad dates roughly from the 8th – 9th century AD. In all likelihood, this early extraction was based on local and regional use within Norway. Towards the second half of the Viking Age, c. AD 950, production expanded to an industrial level with mass production of quernstones for a larger and wider market. Extraction was now based on sale and profit.

The range of products from Hyllestad included more than quernstones. At the end of the Viking period and in the Early Middle Ages, larger millstones for water mills were produced. The quarries were also a major production site for stone crosses, of which the earliest probably date back to the first period of Christianity and the transition from the Viking Age to the Middle Ages. A

FIGURE 2.69 *Millstone Park, Directorate for Cultural Heritage.* ©*Kim Søderstrøm/Jørgen Magnus.*

TABLE 2.12 *Archaeological investigations at the Hyllestad quernstone quarries.*

YEAR OF INVESTIGATION	LOCATION OF INVESTIGATION SITE	TYPE OF INVESTIGATION SITE
2001	Rønset	Combination quarry with production of quern- and millstones
	Rønset (Otringsneset)	Combination quarry with production of quernstones
	Sæsol	Shallow quarry with production of quernstones
	Myklebust (Millstone Park)	Deep quarry with production of quern- and millstones
2006	Rønset	Deep quarry with production of slabs
2007	Myklebust (Millstone Park)	Deep quarry with production of quern- and millstones
2008	Rønset	Deep quarry with production of quern- and millstones
	Rønset	Rock shelter used in connection with the quarrying
	Sæsol	Shallow quarry with production of quern- and millstones
	Myklebust	Deep quarry with production of quernstones and stone crosses

number of the stone crosses still survive at very special places along the coast of western Norway. Extraction of this kind puts the place of production into a wider context with links to regional kingdoms, local elites and also the major social upheavals of the Viking Age, in both a concrete and symbolic manner. Hyllestad represents a unique area of production.

LATER DEVELOPMENTS OF IMPORTANCE

Quernstone operations at Hyllestad in the Viking Age formed the basis for a production that continued for more than 1200 years, through the Middle Ages and up to more recent times. During the Middle Ages, the range of products was also extended to include grave slabs and stone vessels, augmented by smoke vent stones in later times. Nevertheless, the main products throughout the entire period comprised quernstones and millstones. The last ones were extracted in Hyllestad until 1930 using a different technology – that of gunpowder.

The sites are automatically protected through the Norwegian Heritage Act and in 2002 the Millstone Park was set up at the southern part of Mylkebust as a means to telling the history of the Hyllestad quarries.

HISTORY OF RESEARCH

The first scientific study of the quernstone quarries at Hyllestad was carried out in 1968 by the agrarian historian Ottar Rønneseth (Rønneseth 1968, 1977). Rønneseth studied the quarries and the traces of production in one of the sub-areas at Hyllestad – and he was the first to put these sites on the map. The question of dating was also in focus, but in the absence of suitable methodologies, he was unable to shed light on the earliest phase of production.

Despite this early work, little research has been conducted in this field until recently and it was not until the end of the 1990s that the quarries again came into focus in a research context. In recent years, the quarries and their products have become subject to renewed interest in the fields of both archaeology and geology.

In 2001, 2006, 2007 and 2008 small-scale archaeological investigations were carried out in selected parts of the production landscape. Within the property, archaeological investigations were conducted at four quarry sites at Rønset, two at Myklebust and two at Sæsol. The investigations date the production to the Early Viking Age and reveal large-scale extraction over the course of the subsequent centuries. The investigations also shed light on ownership conditions and the organisation of the enterprise, with respect to both production and distribution (Baug 2002, 2013).

In 2007, the *Geological Survey of Norway* (NGU) undertook a complete survey of the entire quarry landscape at Hyllestad. Each individual quarry was mapped and recorded in databases and all the quarries were characterised on the basis of their geological features, extraction techniques, morphology and size. The investigations provided evidence of different quernstone types with different methods of production and the work resulted in detailed maps and databases for the stone quarries and their geology, as well as of the remains of roads and infrastructure in the production landscape (Heldal & Bloxam 2007). Both the archaeological and geological investigations have resulted in a number of publications of both an academic and a popular scientific nature, focusing on the quarries.

In the 1990s, the question of distribution and trade has also been in focus. Marine archaeological surveys have identified quernstone cargoes from Hyllestad along the coast of Norway (Hansen 1992, 1997), and these provide an important testimony to the maritime connection. The quernstones were transported by sea.

At the end of the 1990s, provenance studies were carried out on quernstones found at various places in Sweden and Denmark. These investigations were the first to show the distribution of quernstones in a wider geographical context, and a large-scale long-distance export of quernstones from Hyllestad, from the middle of the 10th century AD onwards, was documented (Carelli & Kresten 1997).

A renewed interest in quernstone quarries in Norway has also resulted in a major multidisciplinary research project based on geology, archaeology, craft techniques and other aspects – *The Norwegian Millstone Landscape*.[12] This has also helped to shed light on the Norwegian quernstone quarries. In the case of Hyllestad, the project has provided new information about extraction techniques and the use of tools in the quarries. Provenance studies of quernstones at different locations in Northern Europe have also shed new light on trade in and the exchange of quernstone goods from Hyllestad within Norway and abroad. The millstone project was concluded during 2012, but some of the final publications are still in progress.

[12] www.millstone.no

CONCLUSIONS OF CHAPTER 2

This serial nomination consists of components parts that are all important archaeological locations and which, even today, show clear traces of activity from the Viking Age. Furthermore, they are all closely connected with the development from chiefdoms to early states. The component parts are reflections of various aspects of the processes leading to the formation of Medieval states through the anchoring of decisions in assemblies, establishing secure and stable locations for trade, defending the realm with military installations and legitimating royal power through the use of symbols and alliances with the church. Contact between the sites is argued on the basis of the material culture and its provenience, as well as written sources which demonstrate that the central persona of the Viking Age knew and interacted with each other at several of the component parts of this nomination. Through the intensive use of maritime transport, elites were able to build up networks outside their regional spheres of power. The basis for the extension of contact networks from Scandinavia to regions in Eastern, Western and Northern Europe was the Vikings' developing expertise in ship-building and ocean navigation. The component parts of this nomination have contributed decisive information on the formation of Viking Age culture and scientific investigations at the sites account for significant elements in the history of state formation in the Viking Age.

The sites represented in this nomination carry elements of the history of how Medieval Christian societies emerged between the 8th and the 11th century AD in Scandinavia. Networks of urban settlements were established, where trade and the transport of mass-produced goods (for example quernstones from Hyllestad) were localised and visits to marketplaces were given royal guarantee and protection (Hedeby). Efficient maritime transport enabled these urban settlements to develop and through this process the ship outgrew its purely practical function and became a symbol of the wealth that ships were able to secure for the ruling elite. This is demonstrated by the ship burials in Vestfold, where entire ships were buried as part of the funerary rites of the elite. The elite's requirement for legitimacy was not only symbolic, but through assembly decisions, laws were recited and disputes resolved among freemen (Þingvellir).

Areas far from Scandinavia were influenced by the traditions and culture of the Norse traders and those who emigrated (Grobiņa, Iceland, Dublin, York etc.). A central aspect of understanding the process which led from chiefdom to state is how attitudes and values derived from regions outside Scandinavia led to a transformation of Scandinavian societies. A crucial element in this transformation was the monarchy's alliance with the Christian Church.

The component parts stand today on each nation's list of important cultural heritage sites from the Viking Age, and as a consequence of legal protection, decades of preservation and research and current management and dissemination structures they are visible features in today's landscape. The component parts can be understood as a collection of "scientific key sites" of the Viking Age. The authenticity and integrity of these component parts are heavily underlined by the fact that, through the application of new research projects, they continue to reveal new information about power relations in Scandinavia during the Viking Age.

JUSTIFICATION FOR INSCRIPTION

3

3.1.A BRIEF SYNTHESIS

The serial transnational property Viking Age Sites in Northern Europe is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th – 11th centuries AD.

During this time, commonly referred to as the "Viking Age", the Norse people travelled from their homelands in Scandinavia – as Vikings – for the purposes of trade, raiding, exploration and the search for new lands to settle. They interacted with pre-existing local populations during the course of their sea voyages eastwards and westwards and thereby also exerted substantial influence on areas outside Scandinavia. The nominated property includes five component parts from the core region of Scandinavia and two North European sites from the area of expansion and interaction.

The Jelling mounds, runic stones and church in Denmark and the Þingvellir National Park in Iceland are World Heritage Sites.

The Viking Age was an important transitional period in Northern Europe which, for the most part, had never been part of the Roman Empire. Made up of a network of politically unstable chiefdoms and petty kingdoms in the 8th century AD, the region became dominated by the formation of Medieval states by the 11th century AD. All the nomination's component parts are located where essential historical actions took place during the Viking Age. These actions have left various physical constructions which illuminate central themes in the making and development of Viking Age societies. The component parts are scientific keys to an understanding of this transition and the concurrent changes in economy, society and religion. This series of sites thereby constitutes an important testimony relative to the cultural-historical period of the Viking Age in the geo-cultural region of Northern Europe.

The serial property comprises the archaeological remains of a trading town and an assembly site, as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places, covering the entire duration of the Viking Age. Consequently, the series of sites testifies to the diversity of remarkable material evidence available from the Viking Age, and provides valuable information on the changing societal, economic, religious and political conditions of the time supported by contemporary written sources.

The serial property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts in five countries, all of which are monumental archaeological sites or groups of sites dating from the 8th to the 11th century AD. The sites thereby belong to the cultural-historical period commonly referred to as the "Viking Age" in the geo-cultural region of Northern Europe.

The Viking Age can be understood both as a chronological and as a geographical demarcation as it is derived from the phrase *fara í víking*. The phrase literally means "to go on an expedition", often interpreted to simply imply "to go on raids". Consequently, the Viking Age encompasses the period when the peoples of Scandinavia – commonly referred to as "Vikings" – left home to *fara í víking*. Traditionally, the beginning of the Viking Age was fixed as AD 793, when the first reference to a raid – the destruction of the Abbey on Lindisfarne – was made in the *Anglo-Saxon Chronicle*. More recent research has, however, pushed this date further back in time when it became evident that significant changes in the archaeological record, indicating the advent of a new historic age, occur throughout the 8th century AD.

The Viking Age was a period characterised by long voyages for the purposes of trade or warfare, as well as for colonisation and conquest and the transfer of ideas and technology. As early as the 7th century AD onwards, people from Scandinavia travelled across the Baltic Sea, before later venturing into the North Atlantic during the 9th century and settling previously uninhabited islands like the Faroes and Iceland. Western Europe, the British Isles and Northern France suffered heavily from coastal invasions by the Norse from the end of the 8th centu-

ry AD onwards. From the 9th century, the Scandinavian seafarers extended the range of their actions further and further east on the Eurasian Continent. In many areas of Northern and Western Europe, Norse settlement was consolidated, at least temporarily. The end of the Viking Age is marked by the emergence of the early Christian states in Scandinavia in the 11th century. Scandinavian kings had become Christian rulers who maintained close family ties with many European noble houses. This new political and social stability eventually brought an end to the Viking raids.

The specific material culture discovered at Viking Age sites clearly reflects the closely interconnected Northern Europe of the time. Many archaeological objects display the typical ornamental styles of the Viking Age, which can therefore be seen as cultural markers. The distribution patterns of such items provide an excellent means of tracing areas of Viking interaction. The broad occurrence of runic inscriptions, notably in Scandinavia, reveals a common language of the Norse peoples. The connections between distant sites in Northern Europe are further underlined by contemporary or near-contemporary written sources, which refer to many of these, and link together several of the component parts. These findings support the notion that the Norse peoples of the Viking Age saw themselves as being linked to each other culturally.

The geographical scope of the Viking Age, and of the nominated property, can therefore be understood as being twofold, encompassing: 1) a *core region* of the Scandinavian homelands of the Vikings (present-day Denmark, Norway and Sweden) together with an area of expansion where previously uninhabited islands in the North Atlantic were settled by the Norse (the Faroe Islands, Iceland, Southern Greenland); 2) *a larger area of interaction* where peoples from Scandinavia interacted, both forcefully and peacefully, with pre-existing local populations. This second larger area stretches from Bulgar (Russia) in the east to Spain and Vinland (Canada) in the west and Brattahlið (Greenland) in the north to Byzantium (Turkey) in the south. Consequently, this larger area of interaction extends beyond the narrower focus of the nominated property, which includes sites from the core region of Scandinavia and the North Atlantic islands and an example of a North European site from the area of interaction.

The factors prompting these voyages, migrations and the interactive expansion have been debated for centuries and will continue to be discussed. What is definitely evident from the archaeological record is the impact centuries of interaction had on social and political developments in Scandinavia: During the Viking Age, Scandinavia was transformed from a series of politically unstable chiefdoms to early Christian states.

Covering the complete period from the 8th to the 11th century, the nominated serial property comprises archaeological sites that have functioned as our "scientific keys" to an interpretation and understanding of the important historical transition from chiefdoms to early states in Northern Europe.

The transition from a social structure of chiefdoms to early states has long been recognised as one of the most central developments in human history. This transition is often characterised by a movement away from redistribution to markets and towards more formalised, stable and centralised political organisations, often resulting in more permanent urban settlements and seats of governance.

In Europe, this transition took place at various stages in different regions. In Southern Europe, the first states emerged as early as the Bronze Age, followed by the Greek city states and eventually by the Roman Empire. At a later stage, the beginning of the European Middle Ages was marked by large migrations of Germanic populations who assimilated the cultural traditions of Antiquity and transformed them into Christian feudal kingdoms. However, with the exception of Britain, Northern Europe had never been part of the Roman Empire and was not subject to this transformation at the time.

In the geo-cultural region of Northern Europe, this important historical transition took place during the Viking Age. During this time of change, the economic base shifted as goods were increasingly produced on a larger scale. Trade and production initiated urban settlements which served the distribution of products as well as of new ideas from abroad. The local pagan religion was gradually replaced by the Christian faith. Traditional political and social systems changed under foreign influences and became institutions that were able to legitimise, stabilise and expand political power in a European context.

The Norse core region and the area of interaction are characterised by vast distances across the open sea, found nowhere else in Europe. By mastering their ships to an unprecedented level the Norse came to regard the sea as an integral part of their world, connecting rather than separating their communities. The maritime dimension of the Viking world impacted fundamentally on their social,

economic and political behaviour, and this is reflected in the archaeological heritage of the Viking Age to a greater degree than in any other era or region of Early Medieval Europe. The transition from unstable chiefdoms and petty kingdoms to early Christian states in Scandinavia was shaped by the Norse maritime tradition: Through raids and overseas settlement, the peoples of Scandinavia were exposed to, and became acquainted with, societies radically different from their own. The result of this process of interaction was the gradual adoption and adaptation of foreign beliefs and practices of governance which laid the foundation for the Medieval Christian kingdoms of Northern Europe.

The serial property *Viking Age Sites in Northern Europe* comprises examples of distinctive types of archaeological sites which together provide the scientific basis for interpreting significant stages in this historical transition:

Grobiņa in Latvia represents one of the earliest phases of overseas settlement. Including a settlement site with a hillfort and four burial sites, the archaeological sites and remains from Grobiņa stand as an excellent example of how the early Norse settlers and pre-existing local community interacted, adopted each other's funerary practices and contributed to developing the settlement into one of the main centres of interaction around the Baltic Sea between the 7th and 9th centuries AD.

From the 9th to the 11th century AD, it was the urban settlement of Hedeby in Schleswig-Holstein, Germany, that developed into the vital centre for trade between the Baltic region and Western Europe and between the North Atlantic and the Continent. The site represents one of the best preserved towns of the Viking Age and its finds and the excellent conditions for the preservation of remains of houses and harbour facilities have contributed greatly to an understanding of the physical layout of emporia and the early urbanisation in Northern Europe. It has provided insights into craft production and the scale on which goods were transported.

The quarry sites at Hyllestad in Western Norway signify the early phases of a market-oriented large-scale production of goods. The remains include evidence from all stages of the production of quernstones and, later, stone crosses. Production began in the 8th century AD and by the mid 10th century quernstones from the site were traded throughout Northern Europe.

The ship burials of Vestfold in Norway can be seen as the apogee of a long-lasting tradition, visually displaying the power of high-ranking members of society (chieftains) through monumental barrows which created memorial landscapes. Including the archaeological sites of Borre, Oseberg and Gokstad, the component part of the Vestfold ship burials shows how this tradition was developed from the 7th to the 10th century AD. These sites have not only provided vital insights into the elite of Viking Age society, they also provided first-hand knowledge of the Viking ships which were essential means for expansion and interaction in the Viking Age.

Þingvellir in Iceland testifies to the development of oral law spoken in an assembly of all the freemen of a region and thereby to early formation of a parliament. The Icelandic assembly site – the Althing – was established at Þingvellir around AD 930. Here the remains of the booths used by attendees of the Althing and other man-made structures are still visible. It is the largest and most eminent known example of a thing site.

The component parts of the Trelleborg fortresses and the border fortification of Danevirke are clear indications of the need for more clearly-defined borders and of the military developments required to protect the emerging states. They are the most prominent archaeological representatives of the period's monumental military building works. Developed between the 8th and the 12th century AD, Danevirke combined natural obstacles with man-made structures extending over 30 km and it became the largest border fortification system in Scandinavia. The Trelleborg-type fortresses date from around AD 980 and are the first examples of a type of fortress built according to a fixed standard in more than one region, thereby providing clear evidence of state formation.

Jelling, with its rune stones, mounds, church, wooden palisade and stone ship setting, was Denmark's royal site in the 10th century AD and also its most iconic, representing the state formation and religious transformation of Viking Age Scandinavia. In Jelling, the conversion to Christianity is uniquely manifested by one of the rune stones, which bears the first depiction of, and reference to, Christ and the conversion to Christianity in Scandinavia. Close by lies one of the earliest churches in Denmark, dating from the late 11th century.

All the archaeological sites in this series are exceptionally well preserved and through research and documentation they have provided scientific evidence for an understanding of the transition between chiefdoms and states in Northern Europe.

3.1.B
CRITERIA UNDER WHICH INSCRIPTION IS PROPOSED

Criterion iii: bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared.

In the Viking Age, local tribal societies in Northern Europe became an integral part of the civilisation of the European Middle Ages. The development of shipbuilding technology and navigational skills for sea voyages was crucial for the political, religious, social and economic processes of this transition. In the course of this transition, the people of the Viking Age became the first to inhabit the North Atlantic islands of the Faroes and Iceland. They were also the first European people to reach Greenland and even North America in historical times.

The interaction with people and power structures in Europe changed the Scandinavian societies.

Collectively, this series of the seven component parts explains the change in pagan local traditions, the shift in settlement structures and economic concepts and the development of parliamentary traditions and of lasting institutions of power in Northern Europe, characterising the transition to Medieval states, through a remarkable material heritage extending from the 8th – 11th centuries and rendering the ensemble an exceptional testimony to the Viking Age.

In the history of Northern Europe, the Viking Age is the period from the 8th to the 11th century AD when prehistoric tribal societies and petty kingdoms developed into larger states and became an integral part of the civilisation of the European Middle Ages.

This historic transition is a model for a development of European societies which differs from the process seen inside the confines of the empires of Antiquity and the Early Middle Ages in Western and Southern Europe. Scandinavia and the North Atlantic islands had never been part of the Christian Roman and Byzantine civilisation which provided the basis for the Middle Ages across large parts of Europe. Nor were they part of the Early Medieval Empires of Southern and Western Europe which emerged from their foundations in Antiquity during the Migration period. In contrast, the Viking Age of Northern Europe bears witness to the constitution of Christian kingdoms and societies as a unique amalgamation of influences from earlier periods, pagan local traditions and the ready adoption of new ideas introduced from distant places.

In this transition, the ship and the sea played a decisive practical and symbolic role. Through ships and the sea, all sub-regions and all sites were connected, creating a historic cultural region where open water formed an essential part of the maritime landscape and of the perception of the world. Via ships and the sea, the Norse travelled and expanded, bringing back new social practices and ideas of governance. Their unique ship-building tradition created flexible open vessels with sails and oars suited to a wide variety of purposes. These ships were able to cover enormous distances across the open sea as well as being able to navigate rivers and shallow waters. Together with exceptional navigational skills, these ships constituted the backbone of Norse raids, trade, migration and communication across the Baltic Sea, the North Sea and the North Atlantic. In the light of this essential function, the ship also became a social and religious symbol of the highest order. The present nomination, as a whole, testifies to this extraordinary maritime tradition which promoted all social, political and economic processes and characterised the transition to Medieval societies in the Viking Age. In the course of this transition, the people of the Viking Age became the first to inhabit the North Atlantic islands of the Faroes and Iceland through employing their navigational skills. They were the first European people to reach Greenland and even North America in historic times.

The component parts of the nominated property have been selected in order to explain a series of social, economic and political processes illustrating this transition. The value of the archaeological sites making up this nom-

ination as scientific sources and testimonies in relation to these processes is due to their size and state of preservation as well as to their historical importance. The archaeological quality of the sites is, furthermore, based on the complexity and diversity of their structures and material. The nominated property thereby shows that:

The transition from chiefdoms to Medieval states in Northern Europe was triggered by the unprecedented extent of overseas travel, expansion and settlement. In consequence, close interaction and exchange with various cultures in Europe introduced new ideas relating to economy, governance and religion.

Change was also promoted by intensifying trade across Northern Europe and beyond, in which Scandinavians played a crucial role. The production of a variety of goods grew, resources were exploited on an increasingly larger scale and urban trading centres emerged which initiated the development of Medieval towns in Scandinavia and elsewhere in Northern Europe.

Memorial landscapes reflect how the transformation to Medieval states was strongly influenced by the shift in religious practices and beliefs. Consequently, burial mounds created landscapes which commemorated ancestors in order to mark territorial ownership. After Christianity was introduced, such monuments yielded to new Christian memorials and symbols of power.

In this time of change, substantial planning and engineering skills relating to military structures were increasingly employed in order to secure political influence and territorial power. The further development of early parliamentary structures and the centralisation of power gradually created political institutions which were crucial to the formation of states. But it was eventually the widespread adoption of the Christian faith that helped accomplish integration of the Norse into the civilisation of Western Europe.

As a result, the diversity and quality of the archaeological evidence from the sites in this series explains the transition from chiefdoms to Medieval states in Northern Europe, rendering this ensemble a unique testimony to the Viking Age.

Criterion iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

The migration and the interaction of the Norse with other peoples in Europe led to new architectural expressions and uses of the landscape which are preserved today as impressive archaeological sites dating from the 8th – 11th centuries.

This series of Viking Age localities consists of archaeological key-sites that illustrate the emergence of Medieval societies and states in Northern Europe during the Viking Age.

It encompasses the archaeological remains of sites of governance with symbolic and religious monuments, assembly sites for deciding legal and political issues, defensive structures such as ring fortresses and border defences, production sites such as quarries, trading towns with harbours, burial places such as ship burials in large barrows and sites of cultural interaction. These types of archaeological sites are distinctive for the Viking Age in their specific form, architecture and layout, use and function and material expression and, as such, bear exceptional witness to this time of transition in Northern Europe.

This serial nomination consists of the archaeological remains of trading towns, harbours, central places, assembly sites, defensive structures, production sites, settlements and burial places of the Viking Age. The selected component parts are key examples of types of sites which illustrate processes in which the ship and the sea occupied a central role and which describe a transition resulting in the emergence of Medieval feudal societies and states from kinship-based chiefdoms in Northern Europe.

In this historical transformation, the developing trading towns and their harbours served as hubs for the transfer of goods and ideas and as catalysts for the introduction of numerous significant innovations, as is evident in Hedeby. These settlements were also large production sites for craft products and, together with large quarries such as at Hyllestad, they illustrate the increase and shift in economic exchange. These new practices entered Scandinavia via interaction with other cultural traditions, a process most prominently displayed in settlements and cemeteries outside Scandinavia, like in Grobiņa, with their abundant archaeological finds and evidence for burial traditions of different origin. In Scandinavia and the North Atlantic islands these new influences from abroad met with local traditions. Changing local traditions are expressed in sacred pagan sites preserved as cemeteries or large single burials. Some of these earthen barrows contain interred ships and are particularly monumental, for example the Vestfold ship burials. They manifest a social hierarchy and territorial claims, as well as the role of the ship and the sea in pagan belief. Just as prominent, the Germanic tradition of assemblies of freemen at so-called things became the backbone of society, being where legal and political issues were settled, as is evident at Þingvellir in Iceland.

However, the gradual establishment of kingdoms can best be illustrated by royal sites such as Jelling, often fitted out with religious monuments as displays of power, for example mounds, churches and rune stones. These sites of governance were, together with the trading towns, the epicentres for the Christianisation of Northern Europe, and where the first churches were established. During the final stage of the Viking Age, rune stones became the predominant form of monumental sculpture. They commemorated individuals and their deeds but also testified to the power and the mainly Christian faith of their sponsors. Finally, one of the strongest indicators of the application and development of new political power was the development of the military architecture which is preserved in monumental constructions like the large border defences of Danevirke, the Trelleborg ring fortresses and, to some extent, in town walls and hill forts.

This account makes it clear that the types of archaeological sites included in this series are characteristic of the transitional processes which took place in the Viking Age; in their specific form, architecture and layout, their use and function and their material expression. Furthermore, the selection ensured that each of the chosen sites is one of the best representatives of its type, if not one of a kind – i.e. unique. Consequently, scientific data gained from extensive research into the entire ensemble of sites have had a substantial impact on our knowledge and perception of the Viking Age. This ensemble of archaeological sites therefore illustrates the historic transformation which took place during the Viking Age, leading to unique historical achievements.

3.1.C.
STATEMENT OF INTEGRITY

All the archaeological sites in this nomination belong to the same cultural-historic group, which is characteristic of the Viking Age in Northern Europe. They cover the entire historical period from the 8th to the 11th century AD. Due to the archaeological nature of the remains, a large number of the sites from the Viking Age have been destroyed over the course of time, whereas others still await detection. This series constitutes a selection of well-preserved Viking Age sites of great historical and scientific value, which are large enough to be able to preserve these values for the future. Together, the component parts complement each other exceptionally well, reflecting different aspects of the transition from tribal chiefdoms to Medieval kingdoms in the Viking Age and therefore serving as "scientific keys" to its understanding.

The borders of the nominated property are defined by the extent of the complete archaeological sites of the component parts. Representing all important historical building phases and structures, the archaeological material and substance, the construction and layout and the situation and setting of these sites are adequately intact in order to convey the significance of each component part and of the property as a whole.

INTEGRITY OF THE SERIAL PROPERTY

Integrity is a measure of the completeness and intactness of all elements and attributes that convey and express the Outstanding Universal Value of this nomination. This serial nomination testifies to the transition of chiefdoms to Medieval kingdoms in Northern Europe during the Viking Age (8th to 11th century AD). Therefore, as a prerequisite for the integrity of the series, all archaeological sites in this nomination belong to the same cultural-historical group which is characteristic of the Viking Age in Northern Europe.

WHOLENESS

At the level of the serial property, the nomination includes all component parts necessary to illustrate a variety of cultural processes characteristic of the historical transition to Medieval kingdoms. The property covers the entire historical period from the 8th to the 11th century AD and also comprises all types of archaeological sites characteristic of this transition in the Viking Age. The component parts are exceptionally well-suited to complementing each other in order to demonstrate this process and thereby serve as "scientific keys" to its understanding. The component parts of this nomination were chosen in order to give a clear picture of the various processes and types of sites that characterised the formation of Medieval Christian societies and states in the Viking Age. The selected component parts and their individual archaeological sites are, accordingly, either among the best extant representatives or even one of a kind with regard to their preservation and scientific and historic quality, compared with Viking Age sites of similar function. Each component part is therefore distinctive and different from the others.

Tables 3.1 and 3.2 give an overview of the types of sites represented in this nomination and of the historical processes illustrated by the various component parts and their sites. The selection and its methodology are explained in detail in Chapter 3.2.5 of this nomination.

Each of the component parts consists of a variety of connected archaeological structures and features, i.e. remains of settlements, burials, fortifications etc., summarised as archaeological sites. Consequently, the borders of the nominated property are defined by the extent of its archaeological sites and structures. Archaeological methods were employed in corroborating the area of the identified structures and areas. Some component parts comprise

TABLE 3.1 *The type-site and the corresponding component parts best representing it in this serial nomination.*

TYPE - SITE	COMPONENT PART/SITE (NUMBER)
Assembly sites: things	Þingvellir (1)
Sites of governance	Jelling (2)
Religious monuments: churches, rune stones	Jelling (2)
Fortification structures: fortified boundaries	Danevirke (4)
Fortification structures: forts	The Trelleborg fortresses (3)
Urban settlement sites, harbours, trading centres: emporia	Hedeby (4.12)
Fortification structures: fortified cities	Hedeby (4.12)
Sites of expansion	The Grobiņa burials and settlements (5)
Burial sites	The Vestfold ship burials (6)
Mass-production sites: quarries	The Hyllestad quernstone quarries (7)

TABLE 3.2 *The component parts and the principal historical processes testified to.*

COMPONENT PART/SITE (NUMBER)	PRINCIPAL TESTIFIED HISTORICAL PROCESS
Þingvellir (1)	Social and parliamentary formation
Jelling (2)	State formation
Jelling (2)	Religious practices and beliefs
Danevirke (4), the Trelleborg fortresses (3)	Engineering and strategic use of landscape
Jelling (2)	Memorial landscape
Hedeby (4.12)	Long-distance trade
Hedeby (4.12)	Urban development
The Grobiņa burials and settlement (5)	Overseas settlement
The Grobiņa burials and settlement (5)	Cross-cultural communication
The Vestfold ship burials (6)	Memorial landscape
The Hyllestad quernstone quarries (7)	Large-scale production

several separate sites which then collectively constitute an archaeological complex; this is the case with Hedeby and Danevirke, the Grobiņa burials and settlement and the Hyllestad quernstone quarries. Other component parts consist of several more distant sites which are technically, regionally and historically closely related and which, especially in combination, are able to illustrate appropriately an historic process or represent a type of site important for the value of the nomination. This is the case for the Trelleborg fortresses and the Vestfold ship burials.

All historical building phases and structures important for an understanding of various cultural processes implicated in the transition to state societies during the Viking Age can still be recognised visually or via archaeological methods in the nominated property.

The nominated property therefore encompasses all the elements necessary to convey its proposed Universal Outstanding Value.

INTACTNESS

Intactness measures whether the attributes and elements of the nominated property and its component parts are of sufficient extent to be able to convey the value of the serial nomination.

For the interpretation of the series as a whole, and of each of its component parts, attributes such as the archaeological material and substance, the construction and layout as well as the situation and setting of the archaeological sites were drawn upon. All of these attributes are preserved in features within the nominated property or as part of its buffer zones. The attributes are conserved to a degree which enables them to testify adequately to significant cultural processes of the transition. The attributes are thereby sufficiently intact to be able to convey the significance of each component part and of the property as a whole.

The construction and layout of each site are still sufficiently complete so as to exhibit the site's original function. Features made of durable materials, such as earth and stone, are consequently generally visible above ground. Some of these features, for example ramparts or mounds, stand up to 8 m above ground level and are more than 6 km in length. Other features can be identified by employing archaeological methods. In the cases of the Trelleborg fortresses (3) and the Vestfold ship burials (6), the combination of preserved features at all the sites constituting a component part creates a sufficiently intact and complete picture, illustrating the layout and construction of each specific type of site. In these cases, the sites comprising the component part also complement each other to provide adequate testimony of one or more relevant cultural processes involved in the transition to early states.

The remains present at the individual archaeological sites included in this nomination rank among the best preserved and scientifically most valuable sources relative to the Viking Age. Viewing the property as a whole, the archaeological remains and the original substance are largely intact, thereby containing all the information necessary for interpreting the function of each site. However, as archaeological sites, each component part possesses different qualities, specifically ordained by the materials present and prevailing environmental conditions, which affect the state of preservation.

The original structures and superstructures of sites such as Þingvellir (1), Jelling (2), Hedeby (4.12), Grobiņa (5) and the Vestfold ship burials (6) were predominantly made of perishable materials such as timber and wattle. Remains of these sites are preserved in the form of layers of archaeological material embedded in features showing the extent of the decayed materials. However, Hedeby (4.12) and some of the Vestfold ship burials (6) are characterised in particular by preservation due to waterlogging, i.e. perishable materials such as wood, wickerwork and even textiles survive, shedding light on Viking Age building technology. Below ground, all these structures are well preserved from an archaeological point of view, although subject to natural wear and tear. The booths at Þingvellir (1), the church and rune stones in Jelling (2), the quernstone quarries at Hyllestad (7), the mounds of the Vestfold ship burials (6) and the ditches and ramparts at the Trelleborg fortresses (3), Hedeby and Danevirke (4) were mainly built of durable materials such as earth, stone and brick. They have survived the long period without use relatively well. The vast majority of the Hyllestad quernstone quarries (7) are very well preserved.

Where important for the interpretation of the property, the location and setting of the component parts and their sites are adequately preserved. Consequently, the positions of the Trelleborg fortresses (3) demonstrate clearly their strategic purpose, mirrored by wetlands, fjords and small rivers in their surrounding landscapes. The topographical conditions relative to the layouts of Hedeby and Danevirke (4), such as wetland areas, moraine hills and sandur plains, are still recognisable today. The cultural landscape surrounding the Borre mounds (6.1) is intact and has been

preserved with a high degree of integrity. The buffer zones are mostly free of modern constructions which would diminish visitors' enjoyment and experience of the sites.

THREATS AND ADVERSE EFFECTS

All threats are all under control and do not pose any immediate danger to the integrity of the attributes or to the value of the sites. The nominated sites and their settings in the landscape are protected by respective national legislation. Boundaries and buffer zones have been defined to ensure the integrity of each site and the distinctive attributes and features of the proposed Outstanding Universal Value.

For all sites, management plans and national and local administrative and service structures provide for conservation of their features and attributes. All sites are also monitored for current and potential threats and effects impacting negatively on their intactness and completeness.

Some threats are common to most component parts, while others vary substantially due to their different nature and location. There are no general threats to the integrity of the whole property. Most component parts are situated in inhabited areas, with farms and villages inside their buffer zone, or even inside the nominated property. Resulting development pressures are controlled by adequate planning measures. Encroachment by land use is mainly reduced by gradual change of ownership and use of the threatened areas. Minor threats from various environmental agents occur on most sites and are generally managed by regular monitoring, adequate maintenance and specific preservation measures such as the recent covering of the rune stones in Jelling. For some of the archaeological sites, animal and plant encroachment, as well as erosion by wind and water, is relevant and is tackled and managed by caretaking measures within maintenance schemes. Natural disasters are mainly relevant in the case of Þingvellir (1), where only their effects can be mitigated. Visitor pressure varies considerably between the sites. Any impact, however, is generally controlled according to the local situation.

INTEGRITY OF THE COMPONENT PARTS

In the following paragraphs, the integrity of each component part with respect to its function in the serial nomination and its contribution to the Outstanding Universal Value is described in further detail.

ÞINGVELLIR (1)

The nominated area includes all the necessary features of the Althing, the ruins of the booths, the Law Rock (Lögberg), the area where the law council meetings took place and the gathering area for the assembly. The buffer zone comprises the rest of the Þingvellir National Park. Management plans are currently in effect with the aim of protecting the integrity and authenticity of the area on sustainable principles.

Many ruins at Þingvellir are visible along the banks of the Öxará river in the fissure Almannagjá and along its eastern slope. Around 50 booths, built of turf and stone, have been identified within the assembly site. The assembly site is situated in a natural setting, shaped by tectonic forces, providing a majestic backdrop.

Further remains of 10th century booths are expected to be preserved below ground. These booths were made from turf and rock and maintained and rebuilt over centuries by those attending the annual assembly.

The rift valley with its high cliffs provides a magnificent natural backdrop for Iceland's open-air parliamentary assembly. The nominated area is located on an active seismic zone, thereby subjecting the land to natural change. The floor of the valley has subsided by some 3-4 m since the Althing was founded at Þingvellir and will continue to do so. Subsidence has caused the surface of lake Þingvallavatn to extend further into the innermost assembly site and the level of river Öxará has consequently risen and buried part of the assembly site under sediment. The plains below Lögberg, where the delegates to the assembly ("thingmen") had their booths, will therefore eventually become submerged by natural processes.

There are no plans for the construction of buildings other than those directly necessary for the management of the national park and its visitors within the nominated property. The sole environmental pressure at Þingvellir is erosion and encroachment by the river Öxará, where the main ruins are located. The appearance of Þingvellir

has been shaped by natural disasters such as earthquakes and they are likely to continue to alter the landscape. Consequently, land will continue to subside at Þingvellir, leading predictably to encroachment of the banks by water and the river. However, such natural disasters do not necessarily threaten the integrity of the archaeological substance in the area. As it is impossible to respond to the land sinking and extremely difficult to hinder flooding, park authorities monitor major changes in river flow and focus on preventing the river from destroying archaeological sites.

JELLING (2)

The monument complex in Jelling comprises all the elements referring to state formation, religious transformation and engineering at the end of the Viking Age. The nominated area includes two mounds, two rune stones, remains of a stone setting, traces of a palisade and of several buildings. The construction and engineering of some of the features of the Jelling complex has clear parallels with the Trelleborg fortresses and Danevirke.

The rune stones and the two mounds are visible in the graveyard by the church. The stone setting and the palisade area – consisting of traces of a timber palisade and several houses – are only preserved below ground, but are marked on the surface.

The components of the Jelling complex survive in various states of preservation. While central parts of the mounds – especially the Southern Mound – have been excavated, their remains are of adequate size to reveal their true nature. The rune stones are completely intact. Underneath the present tufa church, dating from late 11th or early 12th century AD, traces of three preceding wooden buildings have been identified. The recorded traces of the stone setting indicate that it had a ship-like form. None of the stones are visible but the structure is marked on the surface outside the graveyard with modern material. The traces of the palisade beneath the surface – enclosing a rhombic area of c. 360 x 360 m – are preserved in various states of conservation, depending on the later use of the areas. A smaller segment, with the lower part of the wooden structure, was found in situ in a pond. The remains of the houses of Trelleborg type are partly excavated, partly preserved. They are also marked with modern material on the surface.

The Jelling complex is situated partly in a small town, partly on open land. Since the Viking Age the surroundings have changed radically, but since the 1970s there have been efforts to uncover the monument area, culminating in an ongoing plan to define the boundary between the present town and the monument area. The historical topography of the landscape outside the town is still recognisable. The setting of the property greatly contributes to its visual integrity.

The recent planning of the Jelling complex has been optimised for its World Heritage value and there is no immediate development pressure. The weather naturally inflicts wear and tear on the monuments, but such factors are handled individually. Accordingly, covers were established over the rune stones in 2011 in order to stop the process of attrition. Paved paths for pedestrians and cyclists were established to counter the effects of increased numbers of visitors and local users, and the monument area is regularly monitored.

THE TRELLEBORG FORTRESSES (3)

The Trelleborg fortresses include the three preserved examples of the four known ring fortresses of so-called Trelleborg type: Aggersborg, Fyrkat and Trelleborg. Each fortress comprises ramparts, ditch and the remains of buildings and roads. In the case of Fyrkat and Trelleborg, cemeteries are known and included in the nomination. These are all elements testifying to engineering, strategic use of the landscape and long-distance trade in the Viking Age: elements that express the Outstanding Universal Value of the component part. The construction and engineering of the Trelleborg fortresses show clear parallels with Jelling and Danevirke.

Essential parts of the archaeological remains of the Trelleborg fortresses are still preserved. At Trelleborg, the entire fortress area, parts of the ramparts, ditch and outer enclosure were excavated in 1934-42. However, later research has demonstrated that information can still be obtained here. At Fyrkat, one of the quadrants has not been investigated at all, while recent research shows that information is still preserved in the three excavated quadrants. At Aggersborg, about half of the fortress has been investigated and the latest research in 1990 showed that postholes, parts of the rampart and the ditch are still preserved.

The fortresses have collapsed to varying degrees but ramparts and ditches are visibly marked so that the strict symmetric layout is clearly evident. At Fyrkat and Trelleborg,

the blocks of buildings and streets are marked, underlining the geometry and uniformity of the monument type. Each grave in the cemeteries is separately marked by a low hummock in the terrain.

When the fortresses were abandoned in the Viking Age, Aggersborg and Fyrkat were eventually ploughed, while Trelleborg fell into disrepair and was used for different purposes. Together, the intact areas are of sufficient extent to convey the attributes and values of the Trelleborg fortresses.

The fortresses are clearly visible in the landscape where their positions demonstrate a distinct strategic purpose. The surrounding landscapes, with wetlands, fjords and small rivers, are still intact to a degree which makes the positions of the fortresses understandable. There are no development pressures.

All three ring fortresses are situated in open country and are not affected by urban or forest-related development. Mole activity has been observed in places, but this does not threaten the integrity of the sites. No other environmental pressures or potential natural disasters impact on the sites. At present there is no wear and tear to the monuments due to visitor pressure and no further maintenance problems arising from an increased number of visitors are foreseen in the near future.

HEDEBY AND DANEVIRKE (4)

Hedeby and Danevirke comprise a spatially linked ensemble of archaeological sites. The nominated area encompasses virtually all known man-made structures dating from the Late Iron Age to Medieval times located between the river Treene and Eckernförde bay, associated with the defensive system of Danevirke and the trading town of Hedeby. This includes the various known segments of the embankments, the alternative defensive lines of Kovirke and the Connection Wall running to Hedeby, the Offshore Work in Schlei fjord and all their component elements, such as main ramparts, stone walls, moats and additional embankment lines. Only a few areas were omitted where all the archaeological remains have most likely been removed. The archaeological complex of Hedeby comprises all those elements important for interpretation of the site as early urban settlement, trading centre and place of production for craft goods in the Viking Age. This includes all Hedeby's known settlement and production areas, the area along the shore where harbour facilities are known or can be expected and cemeteries and defensive structures attributed to Hedeby in their entirety.

Most ramparts of Danevirke are still visible over much of its length of 26 km as up to several metre high, earthen embankments. Open moats can still be perceived in many places. The earthen town walls of Hedeby are preserved to a height of several metres.

Hedeby was never built upon again, having been laid waste. Therefore, only the latest archaeological layers have been disturbed as a result of centuries of land use. Numerous excavations and surveys in Hedeby have only affected about 5% of the archaeologically relevant area. Large parts of Danevirke are preserved even though they have been affected by wear and tear over the centuries, mainly through agricultural use and as source of bricks for house building. Due to the linear nature of Danevirke's elements, excavations have destroyed very little of the original substance.

All natural conditions that were availed of in building the defensive system and which determined the choice of sites for Hedeby and Danevirke, such as the Schlei fjord, rivers, wetlands and plains, still exist or are still recognisable in the topography of the area today. Some wetland areas have, however, lost their original characters nature due to intensive drainage measures. The flat relief of the sandur plain has, to some degree, been adversely affected by gravel extraction. Many features are still visible in the landscape and their aspect is for the most part unobstructed for the visitor. The surrounding landscape is also mostly free of constructions which obstruct or detract from the view from the sites so as to diminish an enjoyable experience of the monuments.

A few plots presently under agriculture in the nominated property are to be discontinued step by step within the framework of the implementation of the site management plan. The expansion of housing areas, as well as further gravel extraction within or close to the buffer zone, is controlled by planning regulations. Encroachment by plants and animals, as well as erosion of the brick wall, is being monitored and controlled through regular maintenance and specific measures. At the moment new types of step construction reduce the risk of erosion of the monuments by visitors. Access beyond designated tracks is restricted and regulated. Improved resilience of footpaths on the monuments will help to limit the impact to an acceptable degree in the future.

THE GROBIŅA BURIALS AND SETTLEMENT (5)

The sites of Grobiņa burials and settlement form a united and territorially-confined complex. They are situated within view of each other and are characterised by clearly-defined and visible Norse remains in the form of burial mounds. Archaeological investigations also clearly linked the sites to the presence of local people (Curonians). The Grobiņa burials and settlement form a detached complex of archaeological sites; apart from the sites chosen for this nomination there are no other archaeological sites in the vicinity connected with the presence of Scandinavians.

All the nominated sites in Grobiņa date back to the Viking Age. However, while the chronology of the nominated sites clearly includes the Viking Age, it covers a longer time period by also extending to both earlier and later periods. The Grobiņa burials and settlement represent a distinct Norse settlement which formed and evolved outside the main territories of Norse/Vikings.

The Grobiņa burials and settlement, although varying in visual quality to different extents, still includes all the respective attributes, namely: construction and layout (Skābarža kalns hillfort, Priediens burial site), materials and substance (all the nominated sites), location and setting (all the nominated sites) – that are valuable within the series.

The Grobiņa burials and settlement includes both visual evidence and evidence discovered during archaeological excavations. Visual evidence includes burial mounds and the Skābarža kalns hillfort, with easily recognisable man-made structures for the military defence of the site (earthworks, moat, artificially-steepened hillsides, flattened top etc.). Visually less-defined evidence includes the flat-grave burial sites and the cultural deposits arising from the ancient settlement.

The boundaries of the Grobiņa burial sites, with their typical mounds, are well-known, although in a minority of cases burial sites have lost their visual features (i.e. burial mounds/barrows). Nevertheless, archaeological evidence is preserved below ground. Skābarža kalns hillfort has entirely preserved its original form and as a separate archaeological site it clearly demonstrates its original function as a military fortification.

The sites of the Grobiņa archaeological ensemble are mainly constructed from earth, sand and stone, which do not require traditional conservation. The most appropriate conservation method is preservation of the vegetation (turf). The ruins of the Grobina Medieval castle, situated on top of cultural deposits from a Viking age settlement, have been conserved appropriately.

The Grobiņa burials and settlement are located in and partly in the direct vicinity of the town of Grobiņa. On the one hand, this means that unauthorised transformation of the terrain, and thereby damage to the archaeological sites, does not go unnoticed, but on the other, Grobiņa is a living town with development needs, which can pose certain threats to the archaeological sites. Overall though, the potential threats are effectively controlled.

Development pressures, such as urban development or land use, were identified long ago and their impact on the preservation of the Grobiņa archaeological complex has been minimised. The erosion of the soil due to wind and rain is a potential threat but is controlled by maintenance of the vegetation. Visitor pressure is limited at the moment but installations, like paths, footbridges, stairs and demarcations, will be implemented which will also be able to limit the negative effects of more visitors in the future.

THE VESTFOLD SHIP BURIALS (6)

While the core archaeological monuments comprising the component part of the Vestfold ship burials consists of two freestanding, individual burial mounds (Oseberg and Gokstad) and one larger burial ground (Borre), the borders of the nominated sites extend well beyond the individual monuments. This enables the individual monuments to be protected and appreciated as part of a larger cultural-historical setting and, as such, enhances the visual intactness and integrity of the individual archaeological monuments.

The archaeological monuments are currently in a good state of preservation and are monitored by a combination of regional authorities and local heritage volunteers. As in Jelling, central parts of the mounds in Oseberg and Gokstad have been excavated but the remains of the mounds are of adequate extent to reflect their nature as monumental burial mounds. The artefacts uncovered during the excavations have been conserved and are displayed at the Museum of Culture History, University of Oslo.

Only by viewing the archaeological monuments within a larger cultural-historical landscape is it possible to understand fully how the mounds represent more than just a final resting place for the deceased: Placed along and close to central routes of communication, the mounds

themselves were strategic landscape markers signalling the power of the chieftain lineages to those passing by. The immediate surroundings of the archaeological monuments are well-protected by national heritage legislation. Furthermore, the larger areas included in the nominated sites are classified as "cultural environments" in the Vestfold Regional Plan for Sustainable Area Planning. This status protects the areas from future urban and infrastructural developments, ensuring the integrity of the mounds as well as enabling the wider cultural landscape to remain in its present condition.

The Vestfold ship burials are not vulnerable to damage or to the effects of natural catastrophes, climate change or sudden extremes of weather. Development pressure, resulting from increased demands for buildings and roads, poses a general challenge to the surroundings of all three nominated areas and their buffer zones but is controlled by land-use planning. Despite possible negative effects, the continuation of agriculture within the buffer zones is seen today as the most important strategy for safeguarding World Heritage values in the nominated area. Neither environmental pressure, such as sea-level rise, nor the risk of natural catastrophes is likely to affect World Heritage values in the nominated area. Improvement of tourist facilities, as well as increased monitoring, will limit the impact of an increasing number of visitors.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

The three sites within the component part were chosen from a much larger production area. They offer different qualitative experiences and each provides an individual insight into the industry of the Viking Age. Together, they portray the dimensions, intensity and diversity of the production.

They are located in outlying areas, i.e. outside the areas of settlement at Hyllestad, and as an archaeological site the vast majority of the quarries within the nominated property have remained untouched, without modern intrusions, since production ended. After quernstone production was terminated, these areas have mostly been used as hayfields and grazing land for livestock. Only about 3% of the quarries within the nominated property have been disturbed in connection with activities in recent times, such as the construction of a road, a power line and a small-scale hydro-electric power station.

The majority of the quarries and the spoil heaps remain however untouched – just as they were when the stone-cutters once abandoned them. Thus the quernstone quarries have a high degree of preservation that invests the cultural heritage with great integrity.

The three sites are surrounded by one large buffer zone in order to protect the wider production landscape. The quarries and the surrounding buffer zone represent a well-preserved production environment showing, in an almost complete manner, how the quarrying and transportation of quernstones was conducted.

The nominated property is situated outside areas within the municipality that are subject to development pressure. Land use, like forestry, hydro-energy production and quarrying, is regulated depending on the occurrence of quernstone quarries. Grazing and agriculture will be increasingly employed to prevent the overgrowth of the entire area and the monuments and sites with vegetation. While sea-level rise could submerge a few quarries in the nominated area, it will not threaten the integrity of the quarries themselves. Neither would a potential flood wave have any impact on the integrity of the nominated property. Visitor impact in areas more vulnerable to unregulated use will be minimised by further channelling of visitors to Millstone Park, which is well-suited to this purpose.

3.1.D.
STATEMENT OF AUTHENTICITY

The credibility and truthfulness of the evidence for the interpretation of the archaeological sites in this series for the transitional process from tribal societies to Medieval states in the Viking Age is conveyed by the genuine archaeological material, as well as the construction and layout and the situation and setting of the component parts. All archaeological remains of the nominated property have retained their authentic construction and layout since the Viking Age. The archaeological material and substance of the nominated property is also entirely authentic. All building phases, features and their remains relevant to this nomination date from the Viking Age or are likely to do so. Important topographical conditions and features, which were historically availed of in the choice of site and the layout of the structures, are still recognisable even today. Where recent repairs and restorations have been carried out, these can clearly be distinguished from the historical material and are based on complete and detailed archaeological documentation.

The credibility of the evidence has been corroborated by numerous written sources and extensive research using established archaeological and scientific methods. The theories employed in the interpretation of the sites and of historical processes in the Viking Age are derived from this research and have wide acceptance in the scientific community.

AUTHENTICITY OF THE SERIAL PROPERTY

The credibility and authenticity of the evidence for the interpretation of the nominated property is conveyed by the genuine archaeological evidence, the construction and layout of the component parts and their situation and setting.

The credibility of these attributes has been corroborated by written sources and research using established archaeological and scientific methods. The theories used in the interpretation of the sites, and of the historical processes in the Viking Age, are derived from this research and have wide acceptance in the scientific community.

Significant insights into the history and development of the nominated property have been gained since the 19th century through extensive archaeological excavations, investigations and various types of survey involving the use of invasive and non-invasive methods on the sites. Research has always been based on current international standards. To this day, these studies harness the newest methods of investigation and analysis and further advance them. Dating and analysis of the remains has traditionally been achieved by archaeological methods and, more recently, by employing a variety of scientific methods, such as dendrochronology and ^{14}C dating. In particular, archaeometry, with chemical and physical dating techniques, remote sensing, geo-physical survey and the use of metallurgy, archaeobotany and zooarchaeology have created an enormous amount of new, previously inconceivable information.

Before the application of archaeological methods, information on the credibility of the component parts was gained exclusively from the interpretation of contemporary and historical written sources, which are still available today. These include runic inscriptions from the Viking Age and historical reports from contemporary Europe, as well as later literature such as the Icelandic sagas from the 12th – 14th centuries or Medieval historiographies like the *Gesta Danorum* from the 13th century. Intensive research into this material still offers essential data for the interpretation of the monuments. The numerous sagas, myths and songs about some of component parts underline their function and importance in popular belief up into the present day. While written records were often silent for centuries, the monuments returned to public debate primarily during the 19th century.

CONSTRUCTION AND LAYOUT

All preserved archaeological remains relating to the nominated property have retained their authentic construction and layout since the Viking Age. The visible form of the archaeological sites is now largely determined by wear and tear over the centuries. Some features, like the mounds in Jelling or parts of the ramparts of Danevirke, have even retained much of their original form. Other sites were, however, in use longer than just the Viking Age or experienced later reuse, which has resulted in changes to their present appearance in some instances. The use of Þingvellir, Jelling, Danevirke and the Hyllestad quernstone quarries continued into the Middle Ages. Some parts of the ramparts and the moats of Hedeby and Danevirke were reused in the 19th and 20th centuries.

Where recent restorations have been carried out, they are clearly marked and based on complete and detailed archaeological documentation. The collapsed bank structures at Trelleborg (3.3) and Fyrkat (3.2) were marked in the terrain and the ditch emptied of fill. At Aggersborg (3.1), where the original monument had to a major extent been ploughed down, the bank and ditch were exposed and recut. In Hedeby (4.12), reconstructions of some houses were recently built as an open-air museum on excavated ground. The Oseberg (6.2) and Gokstad (6.3) mounds and the mounds at Jelling (2) were all partially restored in the 20th century after earlier excavations.

MATERIAL AND SUBSTANCE

The preserved archaeological material and substance of the nominated property is entirely authentic. All building phases, features and their remains relevant to this nomination date from the Viking Age or are likely to do so. Their age has been corroborated by archaeological research revealing genuine materials from the Viking Age or providing other scientific dating, for example from dendrochronology or ^{14}C dating, or by the comparison with other known materials or structures from the Viking Age. The sites, however, also encompass earlier and later archaeological phases. Later layers have, as a rule, impacted on earlier phases.

Generally, restoration has been conducted using the same types of material as the original. For example, repairs to the brickwork of Danevirke can be clearly distinguished from the historical material. On the other hand, the marking of excavated or invisible structures associated with the monuments in Jelling and the Trelleborg fortresses has been done using modern materials.

LOCATION AND SETTING

All sites retain their original location as in the Viking Age. The location and setting of the sites have, however, naturally undergone constant change and development since the Viking Age. Some important topographical conditions and features that were availed of historically in the choice of site and the layout of the structures are still recognisable even today.

AUTHENTICITY OF THE COMPONENT PARTS

In the following paragraphs, the authenticity of the attributes of each component part is described in more detail.

ÞINGVELLIR (1)

The nominated area has changed little since the Althing was founded around AD 930. The site is known in written sources dating from the 11th and 12th centuries until modern times, describing events as far back as the early 10th century AD.

Construction and layout

The archaeological ruins are in authentic state and have not been restored. Limited excavations have taken place in the last 150 years. Due to tectonic movements and the dynamic geology, the landscape at the site has changed slightly since the Viking Age. There has been some construction of facilities for visitors to the site. Paths and boardwalks have been made at the site to protect surfaces and direct the traffic of tourists visiting the site.

Material and substance

The archaeological remains of Þingvellir are representative of the assembly and its history. The ruins above ground are the latest booths, dating from around beginning of the 17th century until the 19th century, with the earliest booths being preserved beneath the surface. Within the site there are few non-native trees. The planting of foreign species was stopped in the 1960s and since 2004 non-native conifers have been thinned out and cleared away on the assembly site in accordance with the principles set forth in the management plan of 2004.

Location and setting

The location of the site is authentic.

JELLING (2)

Antiquarian activities involving the Jelling monuments are known since 1586, when the largest rune was exposed. In 1704, the first investigation took place in the Northern Mound and several investigations in both mounds have been carried out since. The remains of earlier buildings beneath the church were discovered in 1976-79, while the stone setting has been sought regularly since 1942. The palisade was discovered in 2006 and has revised the view of the Jelling complex.

Construction and layout

The two large Jelling mounds have been carefully restored in order to recreate their appearance before the excavations.. The North Mound was constructed over an impressive burial chamber. The South Mound contains no burial chamber. The rune stones have exactly the same location, design and form as originally. Remains of the stone setting, palisade and houses are situated below ground, but their positions are marked with modern materials.

Material and substance

Observations resulting from the investigations into the mounds are well documented relative to contemporary standards. The rune stones are completely authentic. The large stone has never been moved from its position but its slope has been adjusted. Changes have been limited to some inevitable weathering, resulting from a thousand years of exposure. This has impacted on the inscriptions on the two rune stones, making them highly vulnerable to further erosion. In order to avoid a further loss, the stones were protected with coverings in 2011, but are still completely visible. The traces of the earlier buildings under the church have not been totally excavated but archaeological stratigraphy is sealed beneath the present floor. The traces of the stone setting outside the Southern Mound were mostly destroyed in the removal of the stones and the later use of the area, but some stone traces have been identified. Traces of the palisade survive mostly as the ditch and postholes, parts of the timber structure itself were found to be still preserved in a pond. Small sections of the palisade are totally destroyed under some of the present buildings in the town. The traces of Viking Age houses connected with the palisade are partly excavated, partly preserved below ground, but they have been adversely affected by cultivation. The research into the monuments has always been of contemporary international standard.

The Jelling complex has been the subject of research for centuries and our insight into Jelling's history is well founded. The National Museum of Denmark has carried out several archaeological excavations, retaining the finds and documentation in its archives. The ongoing *Jelling Project – a royal monument in a Danish and European perspective 2008-14* includes an overview of previous research.

Marking-out of the monuments has been done with modern materials in strict accordance with the results of the archaeological research, without interfering with the preserved structures.

Location and setting

Because of its location partly in a town, the landscape around the Jelling complex is under the influence of this, but from the Northern Mound and the northwestern part of the monument area it is possible to experience the original landscape.

THE TRELLEBORG FORTRESSES (3)

The fortresses were first mentioned in written sources and maps in 1638, 1768 and 1894, while investigations took place in the period 1934-1990.

Construction and layout

Following archaeological investigations during the 20th century, features at the fortresses were marked out in accordance with the results of the research.

Material and substance

Research into the monuments has always been according to contemporary international standards.

The marking-out of the monuments was performed in strict accordance with the results of the archaeological research without interfering with the preserved structures. At Fyrkat and Trelleborg the postholes relating to houses and streets were marked with concrete. The rampart at Fyrkat was reconstructed, while that at Trelleborg was repaired because it was partly preserved. The ditches were partly recut and the graves on the cemeteries were marked with small hummocks on the surface. At Aggersborg the rampart and the ditch were only marked in their full width but not in their full height and depth.

Location and setting

The current settings in the landscapes mirror the situation in the Viking Age.

HEDEBY AND DANEVIRKE (4)

Danevirke and Hedeby appear in the chronicles of the Frankish Empire's annals as far back as the early 9th century AD and also appear later in other contemporary written sources under various names and linguistic variations. Hedeby was abandoned on the founding of Schleswig, on the other side of Schlei fjord, and shortly afterwards fell into oblivion. Danevirke, however, remained in use well into the Middle Ages and was mentioned in the earliest Danish records of the 12th/13th century.

Construction and layout

The construction and layout of the defensive features of Hedeby and Danevirke have retained their authenticity for the most part. However, the present form and appearance of the ramparts and moats of Danevirke and of Hedeby have, in particular, been shaped by deterioration over the centuries and, to some degree, by the reuse of parts of the ramparts in the 19th and 20th centuries. The only reconstructions are the so-called Redoubt XIV on Danevirke and seven houses and a landing stage in Hedeby. They were built in accordance with the latest research data and substantiated by photographs, excavations and other sources between 2003 and 2007.

Material and substance

Today, the archaeological remains of Danevirke and Hedeby still constitute the original legacy from the time of their construction. All archaeological layers, from the Late Iron Age up until the Middle Ages, are preserved beneath the surface. Earlier phases have, as a rule, been reshaped by later building measures. The conditions of preservation for organic material are extremely good in the waterlogged environment of the harbour areas in Hedeby.

Significant insights into the extent and the history and development of Danevirke and Hedeby have been gained since the 19th century through extensive archaeological excavations, investigations and various types of survey of the monuments. The research into the monuments has always been aligned with current international standards. The attribution of segments of Danevirke and Hedeby to these sites is based on this research.

None of the reconstructions has damaged any of the original substance. The repairs to the brickwork of the Waldemar Wall serve to preserve it and can be clearly distinguished from the historical material.

Location and setting

The present settings mirror the historical situation in the Viking Age and are entirely authentic.

THE GROBIŅA BURIALS AND SETTLEMENT (5)

The archaeological ensemble of Grobiņa, which forms part of this nomination, constitutes well-preserved evidence of extensive trade and personal networks created by Viking Age Scandinavians with local Curonians. It thereby illustrates interaction and a fruitful symbiosis between different cultures and ways of life.

The Grobiņa archaeological ensemble has largely retained a landscape which was typical during the time of its existence.

The Grobiņa archaeological ensemble is entirely authentic. Its individual parts comprise the landscape and a mutually integrated network of material evidence.

The authenticity of the site has been verified by numerous systematic and well-documented archaeological excavations and other research conducted since 1929 and continuing to the present day using modern research methods which offer new data and evidence. The most important research articles on the Grobiņa archaeological ensemble have been published in scientific monographs and other publications in both Latvia and abroad.

Construction and layout

The location and man-made transformations of the Skābarža kalns hillfort are typical, original, easily visible and recognisable. At the burial sites, most of the mounds are visible and largely correspond to their original layout. The Atkalni flat-grave burial site, and the part of the settlement that is not covered by contemporary buildings, have retained their original shape. The part of the settlement covered by contemporary buildings has preserved Viking Age evidence below ground.

The sites of the Grobiņa archaeological ensemble largely reflect the original formation of the site in relatively flat coastal terrain. Even if the shape of the sites has changed over time, completely authentic evidence has been preserved below ground. There is no doubt that these extensive cemeteries were used for burying the dead, while the settlement and the hillfort represent the ancient population. The majority of Grobiņa's archaeological sites have not been restored or reconstructed. Individual burial mounds that were completely excavated at the Priediens burial site were reconstructed in their original locations and original form.

Material and substance

The key sites of the Grobiņa archaeological ensemble definitely date from the Early Viking Age, although the dating of the Grobiņa archaeological complex covers a longer period of time than just the Viking Age.

The sites of the Grobiņa archaeological ensemble contain original materials and constructions both below and above ground, and these have not been substituted by new materials or constructions. The Grobiņa archaeological sites have changed in as much as they have been affected by contemporary development and natural erosion processes.

Information about the significance of the Grobiņa archaeological ensemble derives from systematic and well-documented archaeological excavations conducted on the Grobiņa archaeological sites since 1929, as well as from other research. Most of the research has been published in monographs, and for other research comprehensive reports have been prepared and made available. Although extensive excavations have been carried out on the sites of the Grobiņa archaeological ensemble, these have covered only an insignificant area of the sites. Consequently, in the future it will be possible to use more advanced research methods to test the correctness of today's scientific views.

Location and surroundings

The location of the Grobiņa archaeological sites is of significant value to the complex, because it has not been changed. The location is original and can be easily recognised. Part of the settlement area is covered with modern buildings, which changes the perception of the site. Overall however, the terrain of the site has not changed and it corresponds to the original form. The most important, visually significant, original and easily recognisable features of the site are the Priediens burial mound site, the Skābarža kalns hillfort and several flat-grave burial sites.

THE VESTFOLD SHIP BURIALS (6)

The scientific importance of the Vestfold ship burials was initially recognised in the mid 19th century, when the very first remains of a Viking ship were uncovered at Borre in 1852. Since then the scientific value and indeed the ship burials' authenticity have been manifested by over a century of archaeological and historical research. Our ability to understand and appreciate the value and history of these ship burials, as well as verify their material authenticity, cannot be separated from the archaeological research which once uncovered the remains. Consequently, the authenticity of the ship burials rests, on the one hand, on the authenticity of the actual remains, and on the other, on the credibility of the archaeological research.

Construction and layout

The burials included in the component part of the Vestfold ship burials comprise a combination of large, monumental, circular mounds (Borre, Oseberg and Gokstad) and a series of smaller barrows (Borre). The form and design of the mounds remained largely intact for thousand years, despite the fact that the large mounds were opened by grave robbers shortly after their completion.

With the exception of the 19th century destruction of the so-called "Ship Mound" in 1852, the burial mounds and smaller barrows at Borre, as well as the overall funerary landscape, have remained largely unchanged since the Viking Age. Both Gokstad and Oseberg were professionally excavated in 1880 and 1904. Following these excavations, the mounds were carefully restored so that their visual appearance in the landscape still can be experienced.

Material and substance

The material authenticity of the remains has been uncovered via well-documented archaeological surveys and excavations: Using a combination of stratigraphy and typologies, the first excavations revealed that the construction of mounds and the grave goods within them date from the 7th to the early 10th century AD. This has later been confirmed by dendrochronology and ^{14}C dating (for details, see 2.B.3 *History and development of the component parts*). The archaeological and scientific research has thereby established that the remains are authentic and credible. Furthermore, employing the most advanced methods of the time, and presented in published and readily-available scientific publications, the research itself is well-documented and credible.

All the Vestfold ship burials are man-made constructions comprised of a combination of earth, clay and stones. In the larger mounds, wooden Viking ships, the final resting place of the deceased, functioned as the centre piece of the constructions. With regards to the restored mounds, restoration was conducted using the same types of material (earth) as used in the initial the construction.

Location and surrounding

All the Vestfold ship burials are situated on their original sites. The present-day landscape surrounding the mounds is characterised by open agricultural fields, ensuring that the mounds remain clearly visible landscape features. More than modern infrastructural developments it is the

changing (rising) sea level that represents the most dramatic visual change with respect to an understanding of the surroundings of the mounds.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

Minor archaeological surveys have been undertaken which date the extraction of stone at Hyllestad to the Viking Age. The investigations show that the production which commenced in the Early Viking Age formed the basis for large-scale extraction over the following centuries. Production increased in extent beyond the Viking Age and into the Middle Ages. This is also documented by finds of quernstones originating from Hyllestad in other contexts in Northern Europe – providing evidence of widespread distribution from the mid 10th century onwards. The well-documented archaeological and geological research into the quarries and the distribution of the quernstones testify to the scientific value of the Hyllestad quarries, and thereby establish that the remains are authentic and credible.

Construction and layout

The quarries included in the component part of the Hyllestad quernstone quarries include the bedrock from which the quernstones where extracted and the surrounding spoil heaps containing remains from the production, as well as remnants of roads and harbours from which the products were loaded onto boats. Production affected the landscape to such a degree that the quarries in several areas are so densely-spaced that the original terrain is no longer visible. Production marks covers the bedrock and in some quarries unfinished quernstones still remain attached to the rock. Broken and unfinished quernstones lie at the quarry sites and at the harbours – both on land and in the sea – as clear evidence of the activities which took place here.

Materials and substance

The quarries consist of the bedrock, of garnet mica schist type, with production marks. The spoil heaps are made up of broken and unfinished quernstones, slabs, flakes and gravel, arising from the extraction.

Location and surrounding

All the quarries within the three sites are located in outlying areas at some distance from settlement and agricultural activity. The quarries and spoil heaps are still clearly visible landscape features. The present-day landscape surrounding the quarry sites is characterised by forest comprised of deciduous trees, pines and smaller bushes and with only minor traces of human activity since production ended.

3.1.E.
PROTECTION AND MANAGEMENT REQUIREMENTS

The values and integrity of the nominated serial property are managed and safeguarded by management systems on two levels in order to meet the requirements of the operational guidelines for effective protection and coordinated management. The integrity and values of the whole serial property are maintained within a transnational management framework.

The maintenance of all attributes conveying value, integrity and authenticity takes place on the level of the individual component part. The responsibility for the management on this level remains within each State Party.

All component parts and their buffer zones are protected according to the legal systems in place in each State Party. In addition, the majority of sites and areas are owned by public bodies. However, some sites are completely in private ownership as the ownership of the nominated property varies substantially from site to site and component part to component part.

The various protection and planning mechanisms and acts which apply directly to the component parts are sufficient to guarantee the protection and preservation of Outstanding Universal Value and the integrity and authenticity of the entire nominated property and its component parts.

OVERALL MANAGEMENT FRAMEWORK AND SITE MANAGEMENT PLANS

In the management framework, all States Parties commit themselves to the aim of protecting, preserving, monitoring and promoting the Outstanding Universal Value of the nominated property.

The management framework builds on cooperation between the involved partners in order to set common standards. The management framework provides a forum for active collaboration between all component parts and national bodies of management of the States Parties. Management principles for the entire nominated serial property are defined in the management framework such as establishing common principles and guidelines for good management, building capacity for common management, promoting the property, involving stakeholders and monitoring the management.

The central body of the management framework is the Steering Group, which embodies the joint responsibility of all States Parties for the nominated property. It ensures the coordination of the management of the individual component parts by making decisions regarding the structure, goals and procedures of the management system and by implementing the management principles.

The group consists of representatives from the national cultural heritage authorities and from each component part. It is headed and represented by a rotating chair and supported by a secretariat. Its activities are defined by the management principles and the primary aim of the management framework.

In order to implement the goals and principles of the management framework, site management plans or systems have been implemented or are being implemented for each component part. Each is committed to work according to the goals and principles defined in the framework. Each submits to supporting the tasks of the Steering Group whenever necessary and required:

- The current management plan for Þingvellir was published in 2004 and is designated for the years 2004-2024. There is a vision for the period extending until 2024.
- At a meeting in the fall of 2013 it was determined to form a Cooperation Council with the purpose of drawing up the Management Plan for the Jelling component part and implementing it. The Management Plan is based on the current Management Plan from 2010 for

the World Heritage Site, including the Jelling Mounds, Runic Stones, and Church.

- A management plan for the Trelleborg Fortresses was prepared in 2013.
- A management plan for Hedeby and Danevirke was begun in 2012 and is currently being finalised (2013).
- A Preservation and Development Cooperation Council for Grobiņa Region Archaeological Heritage was established in Grobiņa in October 2012, and this coordinates the production and implementation of the management plan. The draft of the Grobiņa archaeological ensemble development and management plan was produced in 2013 in cooperation with Grobiņa Municipality and the State Inspection for Heritage Protection of Latvia. It is intended to discuss this draft in the above-mentioned council and in the local community, as well as among researchers in the framework of the local spatial planning process.
- Declarations of intent have been signed by the involved municipalities with respect to the Vestfold ship burials and the Hyllestad quernstone quarries. A management plan for the Vestfold ship burials was prepared in 2011. A management plan was prepared for the Hyllestad quernstone quarries in 2011.

Funding on the transnational level of the management system refers to the Steering Group and the Secretariat. This funding is provided collectively by the participating States Parties. In addition, financing of the management of each component part is generally sustained by the responsible States Parties, the land owners, responsible authorities and other stakeholders. The individual funding situation varies considerably between the component parts, due to size, specific requirements and the local societal, administrative and legal situation. The financial resources available are adequate for the management of the nominated property.

Sources of expertise and training for the management of the entire property, over and above the experts directly involved, are mainly regional and national museums and authorities of the participating States Parties and other institutions from international networks. Staff will be hired for the Secretariat of the nominated property. For the individual component parts, an adequate number of staff is employed for the implementation of the site management plans. The training and education of the employees is adequate to assure competent management and dissemination of the property.

LONG-TERM EXPECTATIONS

The management framework and the site management plans are the forum for and means to a coordinated approach to long-term issues for the entire property.

A core issue of cooperation between the partners in the serial nomination and beyond is to build an active network between Viking Age key sites and their stakeholders which helps to improve management, conservation, dissemination and monitoring of Viking Age heritage on an international level. The common monitoring system needs further improvement of the overall parameters. One of the main challenges for this network will be to maintain and enhance support from local communities and other stakeholders for the preservation of the sites and their settings. Another ongoing task will be to secure financial support in order to improve maintenance and presentation of the sites.

While the state of conservation of the nominated property is generally good, threats vary substantially due to the different nature and location of the component parts. Some threats are common to most component parts, especially land use, housing developments and visitor pressure, but also natural agents such as plant growth and animal activity. These need to be tackled in a collaborative way. More site-specific threats such as damage to buildings from exposure or by specific animals or plants require additional research and training and the exchange of expertise, information and mutual support.

The integrity and authenticity of the serial property may be enhanced by adding new component parts in the future. In particular, these could improve coverage of the geographical extent of Norse activities in the Viking Age.

3. 2.
COMPARATIVE ANALYSIS

The Viking Age provides an outstanding example of the transition from chiefdoms to Medieval kingdoms in Northern and Northwestern Europe, as well as demonstrating the importance of seafaring in underpinning important aspects of European culture. This transition took place between the 6th and the 11th century AD, in areas on the edge of, or outside, the former Roman Empire and the emerging Holy Roman Empire (Ireland, Great Britain, Scandinavia, Poland etc.). The Viking area preserves outstanding examples of the key physical features which demonstrate this transition, such as assembly sites, royal estates and burials, fortifications, trading ports and other evidence of mass production and trade. Components have been selected by the participating States Parties for the light they are able to shed on this transition and all are outstanding examples of their type. Together, these sites exemplify the different but linked aspects of the evolving social and cultural system which we now recognise as the Viking Age.

3. 2. 1 INTRODUCTION

When the largely Christian Western Roman Empire came to an end in the 5th century AD, due to constant assaults and infiltration by Germanic groups, a series of new and often short-lived kingdoms emerged in the area, creating diverse amalgamations of Christian, Roman and Germanic cultures during a time known as the Migration period. Among the Germanic peoples in Western Europe, the Merovingian Franks became Christianised at an early stage and were able to establish more durable power structures, culminating in the Carolingian Empire of Charlemagne at the turn of the 8th century AD. At this point, rather heterogeneous social structures, based on the divergent customs of the migrated Germanic tribes and of the indigenous Romanised population, developed into a new social system. Eventually these new political, religious and social practices strongly influenced regions beyond the confines of the Frankish Empire and thus became emblematic of the Early European Middle Ages.

The ensuing civilisation varied substantially in expression across the Continent but had a series of fundamental aspects more or less in common. Power and administration were based on kings and the aristocracy, as well as on the clergy and the structures of the Christian Church ruling the lands. Christianity became commonly accepted as the religion of the elite and also dominant among the populace. During the Early Middle Ages, the whole of Christianised Europe became organised into a grid of dioceses and parishes, which helped govern the land with respect to both religious and also legal and administrative matters. The pope in Rome, the emperor of the Holy Roman Empire and the kings constituted the highest authorities, while the members of aristocracy and clergy (which were often one and the same) practically controlled the land granted to them by the kings and the people who lived there. The aristocracy had to provide military service in return for the assigned fiefs, fuelling the regular feuds which took place at this time. The religious and military leaders created and shifted alliances and maintained networks which extended over the entire continent. These members of the elite were bound to each other by notions of faith, family, friendship and loyalty. The economic base was, however, still mostly rural, although towns did start to flourish again due to growing production, markets and trade. Following the Roman gold standard for currency, the Franks established a new standard based mainly on silver coins and their value by weight. These constituted a significant instrument for trade, but also made coinage a widespread symbol of power in the Early Medieval world.

The Christian kingdoms of the British Isles maintained a position outside the Frankish Empire and its successors but maintained close ties and reciprocal links with the Continent. Outside the Christian Europe of the Early Middle Ages were the Muslim empires of Spain and Southern Italy with which, however, mutual contacts were maintained. A specific role was also held by the Christian Byzantine Empire, the successor of the Roman Empire in Southeastern Europe and the Near East.

The pagan realms in Scandinavia and on the North Atlantic Islands, as well as those in Central and Eastern Europe, were initially also not part of the Christian world. However,

they became increasingly influenced by Western European developments, due to trading contacts, raids and wars, as well as by missionary attempts by the Christian Church. During the Viking Age, ties with the Christian Continent tightened and Northern Europe eventually became embedded in the civilisation of the European Middle Ages.

This nomination is composed of a series of outstanding archaeological sites which together show the development from Norse Viking Age chiefdoms and petty kingdoms to European Medieval Christian states under the influence of the prevailing local cultural-historical and maritime setting. The latter resulted in the seaborne raids, expansion and travels of the Viking Age Norse exerting an impact on societies both at home and abroad. Consequently, the transition in Northern Europe was different to that which other regions and societies went through in the process of formation of Medieval states in Europe. The purpose of this comparative analysis is to demonstrate that the nominated property combines sufficient representative and well-preserved sites to give an ensemble that reflects, in a coherent and unique way, both the actual transitional process to the Middle Ages and the specific geographic and cultural conditions of this transformation in the maritime region of Northern Europe during the Viking Age.

DESCRIPTION OF METHODOLOGY

The aim of the comparative analysis is to compare similar properties on the World Heritage List, the Tentative Lists and other relevant properties not on either List. Furthermore, the comparative analysis should outline the similarities the nominated property may have with other properties and the reasons which make the nominated property stand out. Hence, there is a need to determine: 1) whether the values and attributes of *Viking Age Sites of Northern Europe* are already present on the World Heritage List, and 2) whether there is scope on the World Heritage List for the nominated property. Finally, as a serial nomination, there is also a need to justify the selection of the component parts.

Using the ICOMOS (2004) study *Filling the gaps* as a guide, the current nomination is compared to properties that from typological, chronological and thematic points of view resemble the nominated property. The question arises here whether a comparison with properties outside Europe, or with European properties of earlier or later date than the Middle Ages, is meaningful. In the ICOMOS study the authors refer to the UNESCO Declaration on Cultural Diversity (2001), Culture takes diverse forms across time and space. This diversity is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind. in order to explain why cultural properties require an evaluation rel-

	a. greatly increases knowledge about the transition from chiefdoms to early states in Medieval Europe	**b. includes significant examples of sites of a broad typological range**
Fully comparable	Properties located within the geo-chronological region of Medieval Northern Europe which greatly increase knowledge about the transition from chiefdoms to early states in Medieval Europe.	Contains a comparable range of type-sites (e.g. urban settlements, sites of governance, mass-production sites, fortifications, assembly sites). Sites are unique or have an historical or typological key role. Architectural features are comparable, e.g. construction is mainly of earth and timber.
Partially comparable	Properties located in the greater geo-chronological region of Medieval Europe or which relate only partially to the transition from chiefdoms to early states.	Contains one or more of the type-sites or sites have little to no specific relevance.
Not comparable	Properties not related to the transition from chiefdoms to early states.	Contains none of the type-sites.

ative to their cultural and historical background. Only the "early evolution of humans" and the "modern world" since the First World War are regarded as notable exceptions to an otherwise more regional approach to cultural heritage. The Viking Age belongs to neither of these universal periods. For the above-mentioned reasons, all developments connected with this time and region therefore deserve and require an evaluation respective of their cultural and chronological context. The theme of the nominated property, the development of Medieval states and societies in Northern Europe, could nevertheless prompt a request for comparison with other great phases of change and transition, especially with respect to the development of states. But, as with other important themes related to human existence, even such meta-narratives of mankind vary substantially from time to time and region to region. As it would clearly be beyond the scope of this nomination to illustrate the formation of early states on a generic worldwide level, this comparative analysis will be confined to the larger cultural-chronological framework of Medieval Europe.

Furthermore, the properties deemed typologically, chronologically and thematically comparable are then compared to the values of the current nomination in more detail. Consequently, based on the narrative in Chapters 2.a.2 and 3.3, the comparable properties should

a. greatly increase our knowledge about the transition between chiefdoms and early states in early Medieval Europe (i.e. 500-1200 AD),
b. include significant examples of sites of a broad typological range,
c. provide a wide range of material sources of high scientific relevance and consist of sites whose integrity and authenticity is outstandingly good,
d. include references to a maritime tradition whose socio-political and material consequences are traceable in the archaeological and historical records.

As a means of evaluating the comparability with other properties, the following system has been developed:

The system outlined in Table 3.3 is used as the basis for comparing the properties which are seen as typologically, chronologically and thematically comparative. This format is used in Chapters 3.2.2 *Comparison with properties already inscribed on the World Heritage List* and 3.2.3 *Comparison with sites inscribed on the Tentative Lists*. This is followed by 3.2.4 *Comparison with other known properties* before the rationale behind the selection of component parts is provided in 3.2.5 *Selection of the component parts*.

TABLE 3.3 *System used for evaluating the comparability of the properties within the* ***Viking Age Sites of Northern Europe***.

c. provides a wide range of material sources of high scientific relevance and consists of sites whose integrity and authenticity is outstandingly good	**d. a central maritime component in the transition from chiefdoms to early states**
Contains extremely well-preserved archaeological sites. Many visible structures. A broad variety of materials (e.g. stone, metals, ceramics, organic material) and data, which lead to significant scientific results. Excellent future opportunities for further research (e.g. dating possibilities, typology, environmental reconstruction).	The important role of the ship and the sea is clearly reflected in the material remains by a broad range of objects and structures.
Contains only partially-preserved archaeological sites.	The maritime component is traceable in the material remains.
Contains no archaeological material.	The maritime component plays little to no role in the material remains.

3. 2. 2 COMPARISON WITH PROPERTIES ALREADY INSCRIBED ON THE WORLD HERITAGE LIST

Comparison with the same type of properties

At present there is no other transnational, archaeological serial property focusing on the transition between chiefdoms and early states in Early Medieval Northern Europe.

Indeed, there are at present just a handful of *transnational archaeological serial properties* in Europe as a whole. These include the following World Heritage Sites (Table 3.4):

TABLE 3.4 *Overview of transnational archaeological serial properties on the World Heritage List. Classification based on the ICOMOS (2004) study* ***Filling the gaps****.*

WHS NO	NAME OF PROPERTY	TYPE OF PROPERTY	ICOMOS' CHRONOLOGICAL PERIOD	ICOMOS' REGION	STATES PARTIES
527 ha	Frontiers of the Roman Empire	*Transnational, archaeological serial property*	Rome and Roman Empire	Europe	Germany and United Kingdom of Great Britain and Northern Ireland
866bis	Prehistoric Rock Art Sites in the Côa Valley and Siega Verde	*Transnational, archaeological serial property*	Early Evolution of man a. Palaeolithic period (Stone Age)	Related to all regions	Portugal and Spain
1363	Prehistoric Pile Dwellings around the Alps	*Transnational, archaeological serial property*	Early Evolution of man c. Bronze Age and Iron Age	Related to all regions	Austria France Germany Italy Slovenia Switzerland

Table 3.5 briefly evaluates the sites and compares them to the current nomination, revealing their differences.

FIGURE 3.1
Small boats and burial chamber from the Gokstad find.
©Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.

Name	Proposed-criteria	Description of the nominated property
Viking Age Sites in Northern Europe	(iii) (iv)	The serial transnational property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th to 11th century AD. The serial property consists of the archaeological remains of a trading town and an assembly site as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places from the Viking Age covering the entire period.

Property number and name	Criteria	Description of the "serial property"	a. greatly increases knowledge about the transition from chiefdoms to
527 ha Frontiers of the Roman Empire	(ii) (iii) (iv)	*Frontiers of the Roman Empire* is a transnational archaeological serial property which at present consists of sites in the United Kingdom and Germany, but may be extended in the future as other sections of the Roman Limes are currently on other Tentative Lists. The Roman Limes represents the border of the Roman Empire at its greatest extent in the 2nd century AD. Today the property consists of two sections of the German Limes and Hadrian's Wall and the Antonine Wall in the United Kingdom.	*Not comparable:* The World Heritage Site is situated within the same geographical region of Europe and is typologically comparable to the current nomination. However, its remains are chronologically and thematically not comparable to the current nomination.
866bis Prehistoric Rock Art Sites in the Côa Valley and Siega Verde	(i) (iii)	*Prehistoric Rock Art Sites in the Côa Valley and Siega Verde* is a transnational archaeological serial property which consists of several thousand rock art engravings in Spain and Portugal. The rock art sites date from the Upper Palaeolithic (22,000-8000 BC) and are considered to give invaluable insights into the social, economic, and spiritual life of our early ancestors.	*Not comparable:* The World Heritage Site is situated within the same geographical region, i.e. Europe, and is typologically comparable to the current nomination. However, its remains are chronologically and thematically not comparable to the current nomination.
1363 Prehistoric Pile Dwellings around the Alps	(iv) (v)	*Prehistoric Pile Dwellings around the Alps* is a transnational archaeological serial property of prehistoric pile dwelling settlements in the Alpine region of Europe. The series consists of 111 sites dating from 5000-500 BC. Some sites are excavated, others not. Those excavated have revealed that the pile dwelling sites provide some of the most important scientific sources for the study of early agrarian societies.	*Not comparable:* The World Heritage Site is situated within the same geographical region, i.e. Europe, and is typologically comparable to the current nomination. However, its remains are chronologically and thematically not comparable to the current nomination.

TABLE 3.5 *Comparison between the current nomination and the already-listed transnational archaeological serial properties on the World Heritage List.*

	b. includes significant examples of sites of a broad typological range	**c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good**	**d. a central maritime component in the transition from chiefdoms to early states**
	Partially comparable: Encompasses a wide range of Roman military structures. As a border construction, it can also be viewed as a fortification resembling Danevirke. Buildings and fortifications are of stone and timber. Encompasses all military structures along the Limes.	***Fully comparable:*** **The archaeological material covers a large range and is of high value.**	*Not comparable:* The historic frontiers of the Roman Empire in general have maritime components such as coast defences and ports. The World Heritage property, however, includes no maritime component at the moment and is therefore not comparable to this nomination.
	Not comparable: Represents a very specific and different type of archaeological site.	*Partially comparable:* While the material is of high archaeological value and integrity, it lacks a broader range of sources and data.	*Not comparable :* The property includes no maritime component.
	Not comparable: Represents a rather specific and different type of archaeological site, which is not part of the nominated property.	***Fully comparable:*** **The archaeological material covers a large range and is of high value.**	*Not comparable :* Even though the pile dwellings clearly attest to societies inhabiting lakesides, the property is connected to agrarian societies rather than to seafarers.

To sum up, none of these properties is directly comparable to the current serial property as they consist of sites dating from chronologically very different periods and have radically different attributes from *Viking Age Sites of Northern Europe*. Accordingly, there is at present no transnational, archaeological serial property on the World Heritage List which is directly comparable to the current nomination. However, a comparison confined to other serial properties would not suffice as the World Heritage List makes no actual distinction between serial and single properties. The comparative analysis is therefore based on all World Heritage Sites which thematically can be seen as being at least partly comparable to the theme of this series.

Typological analysis

From a typological point of view, the *Viking Age Sites of Northern Europe* fall within the ICOMOS (2004) typological category of archaeological heritage. According to the ICOMOS typological framework, *archaeological heritage includes all types of archaeological sites and individual monuments – from "earthworks, burial mounds, cave dwellings, settlements (towns, villages, farms, villas), temples and other public buildings, defensive works, cemeteries, [to] routes" – no longer in use or occupied* (ICOMOS 2004: 55). As a relatively broad definition, there are numerous World Heritage Sites which fall under the category of "archaeological heritage". Indeed, nearly a quarter of the sites on the World Heritage List can be considered archaeological sites. However, representing heritage sites which chronologically stretch over millennia and geographically cover all geo-cultural regions, many of the sites are not at all comparable to the current nomination. Consequently, there is a need for a narrower definition of the typology of archaeological sites so as to view the typology in combination with other criteria for comparison outlined in ICOMOS' 2004 study *Filling the Gaps*. On the other hand, a restriction to archaeological sites, in the strict sense, seems too narrow with respect to the values of the nominated property; especially as within the same geo-chronological region, properties of built heritage or cultural landscapes may exist with comparable functions or type-sites which, in addition, could also comprise substantial archaeological remains. Consequently, such properties will also be taken into consideration in the following section, while generally the search for comparable sites is further narrowed down by focusing on: 1) chronological and regional features and 2) the thematic scope of the current nomination.

Chronological and regional analysis

According to the ICOMOS (2004) study, *Viking Age Sites of Northern Europe* falls under the regional-chronological category of "Western and Northern Medieval Europe" and its sub-category of "Vikings and Normans". At present only five World Heritage Sites fall within this category. Two of those, 731 *Hanseatic Town of Visby* and 84 *Vézelay, Church and Hill*, are built heritage sites and do not, strictly speaking, belong to the Viking Age heritage covered by this series. Visby is a Medieval town with roots in the Viking Age. Vézelay is a Medieval church complex in Normandy founded in the Viking Age. Out of the other three, two – World Heritage Site nos. 697, *Jelling Mounds, Runic Stones and Church*, and 1152, *Þingvellir National Park* – are integrated into the current nomination. They are therefore treated in the comparative analysis of the component parts (see 3.2.5). However, they are also included as "other World Heritage Sites" in the current comparative analysis in order to testify to the added or different value of the serial nomination compared to the single properties. The third property is World Heritage Site no. 555, *Birka and Hovgården*.

While located geographically outside the designated region of Western and Northern Europe, World Heritage Site no. 4, *L'Anse aux Meadows National Historic Site* in Canada, is also identified as a Viking Age site. Therefore, there are two other World Heritage Sites – Birka and Hovgården and L'Anse aux Meadows – which fall within the more narrowly-defined chronological and regional framework of the Viking Age.

The general notion of the beginning and the end of the Early Middle Ages differs quite substantially within different parts of Europe. Closely connected with the Early Middle Ages is commonly the establishment of Medieval Christian states, a development which takes place in various regions of Europe at different times. In Southern and Western Europe the beginning of the Middle Ages is commonly associated with the end of the West Roman Empire in the 5th century AD and the migration of Germanic tribes roughly from the 3nd to the 6th century. In Northern Europe, however, the Middle Ages are often connected with the end of the Viking Age and begin no earlier than the 11th century AD. Consequently, the first Medieval states in Southern and Western Europe, such as those of the Visigoths in France and Spain (c. 5th – 8th century AD) and of the Merovingian and Carolingian Franks (AD 481-843) or the Longobards in Italy (AD 568-774) are known from earlier centuries, while the establishment of larger Anglo-Saxon

TABLE 3.6 *Overview of World Heritage Sites which are associated with the Vikings.*

WHS NO	NAME OF PROPERTY	TYPE OF PROPERTY	ICOMOS' CHRONOLOGICAL PERIOD	ICOMOS' REGION	STATES PARTIES
4	L'Anse aux Meadows National Historic Site	Archaeological heritage	Early contacts (Vikings, Basques, Bretons etc.)	North America b. Colonial period in North America	Canada
84	Vézelay, Church and Hille	Group of buildings	Vikings and Normans	Western and Northern Europe	France
697	Jelling Mounds, Runic Stones and Church	Archaeological heritage	Vikings and Normans	Western and Northern Europe	Denmark
731	Hanseatic Town of Visby	Urban and rural settlements/historic towns and villages	Vikings and Normans	Western and Northern Europe	Sweden
1152	Þingvellir National Park	Cultural landscape	Vikings and Normans	Western and Northern Europe	Iceland
555	Birka and Hovgården	Archaeological heritage	Vikings and Normans	Western and Northern Europe	Sweden

kingdoms in England (from the 9th century AD) is contemporary with the transition to Medieval kingdoms in Northern Europe. As a result, there is a need to extend the chronological and regional scope somewhat so as to include sites from the wider category of "Western and Northern Medieval Europe". Covering the period AD 700-1100, the current nomination includes the two sub-categories of Early Middle Ages (5th to 10th centuries) and High and Late Middle Ages (11th to 15th centuries) (ICOMOS 2004: 70). A number of World Heritage Sites are associated with these two periods (See Table A1 in the Annex). Notably properties of the Late Middle Ages, from the 13th to the 15th century, tend to be exceedingly different from those of earlier centuries. Properties from the 12th century can sometimes be more comparable to the manifestation of early Christian societies, especially in Northern Europe (e.g. 58, *Urnes Stave Church*). This becomes especially obvious when the type of site – archaeological heritage in contrast to built heritage – and the construction – mainly timber and earth vs. mainly stone – is considered. An across-the-board comparison with High and Late Medieval sites is therefore not meaningful. However, as they belong to the same regional-chronological category, only closer examination can reveal their potential for comparison.

The following World Heritage Sites are therefore regionally and chronologically comparable to the current nomination:

- **Dating back to the 5th – 7th century AD:** 496 *Canterbury Cathedral, St Augustine's Abbey, and St Martin's Church*, 806 *Hallstatt-Dachstein/Salzkammergut Cultural Landscape*
- **Dating back to the 8th century AD:** 3 *Aachen Cathedral*, 268 *Abbey of St Gall*, 269 *Benedictine Convent of St John at Müstair*, 515 *Abbey and Altenmünster of Lorsch*, 974 *Monastic Island of Reichenau*
- **Dating back to the 9th century AD:** 84 *Vézelay, Church and Hill*
- **Dating back to the 10th century AD:** 868 *Routes of*

Santiago de Compostela in France, 697 *Jelling Mounds, Runic Stones and Church*, 1152 Þingvellir National Park

- **Dating back to the 11th century AD:** 80 *Mont-Saint-Michel and its Bay*, 168 *Speyer Cathedral*, 187 *St Mary's Cathedral and St Michael's Church at Hildesheim*, 230 *Abbey Church of Saint-Savin sur Gartempe*, 370 *Durham Castle and Cathedral*, 426 *Palace of Westminster and Westminster Abbey including Saint Margaret's Church*, 488 *Tower of London*, 623 *Mines of Rammelsberg, Historic Town of Goslar and Upper Harz Water Management System*, 624 *Town of Bamberg*, 818 *Mill Network at Kinderdijk-Elshout*, 873 *Provins, Town of Medieval Fairs*, 897 *Warburg Castle*, 943 *Belfries of Belgium and France*, 1153 *The Causses and the Cévennes, Mediterranean agro-pastoral Cultural Landscape*, 1155 *Old town of Regensburg with Stadtamhof*, 1337 *Episcopal City of Albi*

- **Dating back to the 12th century AD:** 58 *Urnes Stave Church*, 81 *Chartres Cathedral*, 160 *Palace and Park of Fontainebleau*, 165 *Cistercian Abbey of Fontenay*, 267 *Old City of Berne*, 272 *Hanseatic City of Lübeck*, 372 *Studley Royal Park including the Ruins of Fountains Abbey*, 495 *Strasbourg – Grande île*, 546 *Maulbronn Monastery Complex*, 635 *Bourges Cathedral*, 695 *Roskilde Cathedral*, 699 *City of Luxembourg: its Old Quarters and Fortifications*, 731 *Hanseatic Town of Visby*, 973 *Bardejov Town Conservation Reserve*, 1009 *Notre-Dame Cathedral in Tournai*

- **Dating back to the 13th – 15th century AD:** 29 *Historic Centre of Kraków*, 59 *Bryggen*, 162 *Amiens Cathedral*, 228 *Historic Centre of Avignon: Papal Palace, Episcopal Ensemble and Avignon Bridge*, 292 *Cologne Cathedral*, 345 *Historic Fortified City of Carcassonne*, 374 *Castles and Town Walls of King Edward in Gwynedd*, 400 *Budapest, including the Banks of the Danube, the Buda Castle Quarter and Andrássy Avenue*, 428 *City of Bath*, 541 *Vilnius Historic Centre*, 596 *Villages with Fortified Churches in Transylvania*, 600 *Paris, Banks of the Seine*, 601 *Cathedral of Notre-Dame, Former Abbey of Saint-Rémi and Palace of Tau, Reims*, 616 *Historic Centre of Prague*, 617 *Historic Centre of Český Krumlov*, 620 *Levoča, Spišský Hrad and the Associated Cultural Monuments*, 621 *Historic Centre of Telč*, 728 *Old and New Towns of Edinburgh*, 732 *Kutná Hora: Historical Town Centre with the Church of St Barbara and the Cathedral of Our Lady at Sedlec*, 757 *Sceilg Mhichíl*, 758 *Millenary Benedictine Abbey of Pannonhalma and its Natural Environment*, 764 *Historic Centre of the City of Salzburg*, 822 *Historic Centre (Old Town) of Tallinn*, 835 *Medieval Town of Toruń*, 847 *Castle of the Teutonic Order in Malbork*, 852 *Historic Centre of Riga*, 855 *Flemish Béguinages*, 884 *Three Castles, Defensive Wall and Ramparts of the Market-Town of Bellinzona*, 902 *Historic Centre of Sighișoara*, 931 *City of Graz – Historic Centre and Schloss Eggenberg*, 932 *Jurisdiction of Saint-Emilion*, 933 *The Loire Valley between Sully-sur-Loire and Chalonnes*, 996 *Historic Centre of Brugge*, 1053 *Wooden Churches of Southern Małopolska*, 1066 *Upper Middle Rhine Valley*, 1067 *Historic Centres of Stralsund and Wismar*, 1078 *Jewish Quarter and St Procopius' Basilica in Třebíč*, 1087 *Town Hall and Roland on the Marketplace of Bremen*

Finally, there are cultural landscapes whose period of use covers millennia, of which 1137 *Kernavė Archaeological Site (Cultural Reserve of Kernavė)* is of particular interest here as it is the only one which falls within the typological category of archaeological heritage. This leads to another observation: When the regional chronology combined with the typological features (see Appendix for full overview), it becomes clear that very few of these properties are comparable to the current property from a typological and regional-chronological point of view. The vast majority of the World Heritage Sites from the regional-chronological category of Western and Northern Medieval Europe are built heritage – falling under a combination of the ICOMOS types of "Historic buildings and ensembles" and "Urban and rural settlements/historic towns and villages", most commonly also falling into the type of "Religious properties". Indeed, with the exception of World Heritage Site no. 1137, *Kernavė Archaeological Site* in Lithuania, the rest of the properties consist of standing buildings. Therefore, while belonging to the same region, most of the properties are not typologically comparable with the current nomination. Accordingly, it is reasonable to argue that *archaeological heritage* from the Northern and Western European Middle Ages is an underrepresented type within this chronological region.

Moving into the wider geo-cultural region of Europe, including ICOMOS' regional-chronological categories of Southern Medieval Europe and Eastern Medieval Europe, similar patterns can be observed. From Southern Medieval Europe, the sub-categories of "a. Medieval Iberia: i) Visgotic kingdom, Christian States and ii) Umayyad Emirate and Caliphate, Cordoba (711-1031); Almoravids (1060-1147); Almohads (1133-1269); The Nasrids of Granada (1232-1492) and c.) Medieval Italy and related states ii) Christian States: Saxon, Ottonians, Normans, Papacy, Lombards, Byzantine Period" are chronologically com-

parable to the current nomination (ICOMOS 2004: 70). From Eastern Medieval Europe the sub-categories of "a. Formation of Slavic states (Khazar state), b. Kievan Rus and Russia (9th to 15th cent.), c. Golden Horde; Khanates; d. Ottoman Empire; Balkans; Great Serbia; Bulgarian empire (Serbia, Bosnia, Herzegovina, Bulgaria and Hungary)" comply with the current nomination (ICOMOS 2004: 70). There are a number of World Heritage Sites from Southern and Eastern Medieval Europe that fall under the regional chronology (see Tables A2 and A3 in the Annex for full overview).

- **Dating back to the 5th – 7th century AD:** 311 *Old Town of Segovia and its Aqueduct*, 379 *Historic City of Toledo*, 474 *Hortobágy National Park – the Puszta*, 1046 *Alto Douro Wine Region,* 1411 *The ancient city of Tauric Chersonese and its Chora*
- **(Partly) dating back to the 8th century AD:** 313 *Historic Centre of Cordoba*, 1318 *Longobards in Italy. Places of the Power (568-774 A.D.)*
- **Dating back to or seeing periods of intensification in the 9th century AD:** 312 *Monuments of Oviedo and the Kingdom of the Asturia*s, 669 *Route of Santiago de Compostela*, 805 *San Millán Yuso and Suso Monasteries*, 1160 *Madriu-Perafita-Claror Valley*
- **Dating back to the 10th century AD:** 930 *Palmeral of Elche*
- **Dating back to the 11th century AD:** 347 *Santiago de Compostela (Old Town)*, 348 *Old Town of Ávila with its Extra-Muros Churches*, 527 *Kiev: Saint-Sophia Cathedral and Related Monastic Buildings, Kiev-Pechersk Lavra*, 604 *Historic Monuments of Novgorod and Surroundings*
- **Dating back to the 12th century AD:** 505 *Monastery of Alcobaça*, 518 *Poblet Monastery*, 633 *White Monuments of Vladimir and Suzdal*, 781 *Historic Walled Town of Cuenca*, 960 *Monastery of Geghard and the Upper Azat Valley*, 988 *Catalan Romanesque Churches of the Vall de Boí*, 1031 *Historic Centre of Guimarães*, 1387 *University of Coimbra – Alta and Sofia*
- **Dating back to the 13th – 15th century AD:** 264 *Monastery of Batalha*, 314 *Alhambra, Generalife and Albayzín, Granada*, 316 *Burgos Cathedral*, 379 *Old City of Salamanca*, 383 *Cathedral, Alcázar and Archivo de Indias in Seville*, 384 *Old Town of Cáceres*, 545 *Kremlin and Red Square, Moscow*, 632 *Cultural and Historic Ensemble of the Solovetsky Islands*, 724 *Medieval Monuments in Kosovo*, 865 *L'viv – the Ensemble of the Historic Centre*

When drawing up a chronological-typological comparison, the same patterns identified in Northern and Western Medieval Europe appear: Chronologically, most properties are later than the component parts of the current nomination and from a typological point of view the sites are all built heritage rather than archaeological heritage. Thus, also within Southern and Eastern Medieval Europe archaeological heritage can be seen to be underrepresented.

To sum up, archaeological heritage can be characterised as an underrepresented type within the regional-chronological category of Medieval Europe. There are at present only three properties which are compatible from a chronological, regional and typological point of view and which are not part of the current nomination. They are: 4 *L'Anse aux Meadows National Historic Site*, 555 *Birka and Hovgården*, and 1137 *Kernavė Archaeological Site*.

This underrepresentation of archaeological heritage from the regional-chronological category of Medieval Europe and the fact that only sites in Northern Europe have been identified is not entirely surprising. It is fair to argue that Northern Europe stood in stark contrast to the Western, Southern and Eastern Europe during the period 500-1500 AD. Whereas Western, Southern and Eastern Europe's Medieval heritage is closely connected to the Christian rulers and the Church, large parts of Northern Europe were, at the beginning of the period, pagan chiefdoms which essentially left behind rather different material remains to their southern counterparts. There are few standing structures from the period in Northern Europe, and those that are still standing have little in common with the historic buildings and ensembles further south, of which many are still in use. Hence, both the material culture and the historical developments of Northern Europe are typologically very different to the rest of Early Medieval Europe. As such, *Viking Age Sites of Northern Europe* can provide new types of heritage site from which to explore and teach future generations about the diversity of Medieval Europe.

Thematic analysis

The last element of the ICOMOS study's comparative framework is the thematic analysis. Six main headings for comparison are listed: I Expressions of Society, II Creative Responses and Continuity (Monuments, groups of buildings and sites), III Spiritual Responses (Religions), IV Utilising Natural Resources, V Movement of Peoples, VI Developing technologies. As this serial property

consists of different types of archaeological sites, the single component parts touch on nearly all these overview themes. However, at present it is the overall serial theme which is assessed, and focusing on the transition between chiefdoms and states and the role which the movement of people played, the following themes seem most relevant to compare:

- I Expressions of Society
- II Creative Responses and Continuity (Monuments, groups of buildings and sites)
- III Spiritual Responses (Religions)
- V Movement of Peoples

There are undoubtedly a great number of World Heritage Sites which can be associated with these generic themes; Expressions of Society is a central thematic feature for the World Heritage Area of Tongariro National Park in New Zealand, just like the World Heritage Serial Property of the 19th century Australian Convict Sites in Australia represents an example of movements of people. Thus it is necessary to combine the thematic selection with a regional-chronological approach. The selection of World Heritage Sites identified in the regional and chronological analysis will therefore be used as a starting point.

However, as there are so few sites which are typologically comparable to the current nomination, relevant sites consisting of built heritage are included here. The chosen sites have been selected because they either are directly linked to the activities of the Vikings, are associated with early states of Medieval Europe or are sites which have been significantly shaped by the movement of peoples in the Medieval period. The selected sites are listed in Table 3.7.

To sum up, there are several properties on the World Heritage List that are at least partially comparable to the nominated property because of their thematic approach, the typology of their structures and their regional-chronological context. However, four of them – *L'Anse aux Meadows National Historic Site*, *Jelling Mounds, Runic Stones and Church*, *Birka and Hovgården* and Þingvellir National Park – are Viking Age properties, two of which are included in this serial nomination, while Birka and L'Anse aux Meadows can be evaluated as a possible extension to the integrity of the series, an aspect further discussed in the section on the selection of sites.

Of the other properties, *The Longobards in Italy* deserves special mention as these sites are inscribed as outstanding testimony to an Early Medieval Germanic-Roman culture as well as for their important role in the transition from Antiquity to the European Middle Ages. Consequently, the Lombard sites show the greatest thematic resemblance and can be considered closest of all inscribed properties on the World Heritage List to the nominated property. However, there are still significant disparities: The Longobard sites are focussed on the Southern European perspective of the development of the Middle Ages, which is determined to a large extent by the Roman heritage and includes no relevant maritime dimension, an aspect which is so crucial for the situation and transition in Northern Europe. This stresses the unique historical and geographical situation of the Norse culture of the Viking Age. Furthermore, *The Longobards in Italy* decidedly addresses the remains of the Lombard culture, which is expressed by a stone building tradition – not by one that mainly uses earth and perishable materials. The assimilation of the Lombards is, in terms of architectural and artistic synthesis, notably different from the process that took place in the Viking Age. Therefore, the nominated property and *The Longobards in Italy*, do not convey the same values with respect to the Word Heritage List. In summary, it can be said that the serial nomination presented here complements the World Heritage List with an outstanding example of an Early Medieval Germanic culture, the development of which , in many ways, differs from that of the Lombards, but which thereby demonstrates the diversity of the phenomenon that eventually brought the different parts of Europe together under the collective roof of Medieval civilisation.

FIGURE 3.2 *Statue of the viking Leif Eriksson in Brattahlid, Greenland. Leif was the reportedly the first European to reach North America. He sailed from from his fathers farm in Brattahlíd to Vinland (Canada) in the year 1000 AD.* ©Þór Hjaltalín.

Name	Proposed-criteria	Description of the nominated property
Viking Age Sites in Northern Europe	(iii) (iv)	The serial transnational property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th to 11th century AD. The serial property consists of the archaeological remains of a trading town and an assembly site as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places from the Viking Age covering the entire period.

Property number and name	Criteria	Description of the "serial property"	a. greatly increases knowledge about the transition from chiefdoms to
4 L'Anse aux Meadows National Historic Site	(vi)	L'Anse aux Meadows is the remains of an 11th century Viking settlement, the first European presence in North America. The excavation of the site shows that the settlement has been constructed using techniques (wooden-framed turf buildings) common in Iceland and Greenland. Thus the property is seen as a milestone in the history of human migration. The site was discovered in 1960 and then fully excavated between 1961-68 and 1973-76 and protected in 1977.	*Partially comparable:* While located outside the region of Medieval Europe, L'Anse aux Meadows is typologically, chronologically and culturally comparable to the current nomination. It can, however, be pointed out that it is more difficult to link the site clearly to the development of early states in Europe.
58 Urnes stave church	(i) (ii) (iii)	The church of Urnes from the 12th and 13th centuries is an outstanding example of traditional Scandinavian wooden architecture - the stavkirke. It combines traces of Celtic art, Viking traditions and Romanesque spatial structures, among them elements originating from a stave church built about one century earlier giving name to a Late Viking art style.	*Partially comparable:* Parts of Urnes stave church are clearly from the Viking Age. The church itself, however, refers to already established Christianity and is therefore difficult to link to the historical transition to early Medieval states.
312 Monuments of Oviedo and the Kingdom of the Asturias	(i) (ii) (iv)	The kingdom of Asturias (AD 718-924) was an early Christian kingdom on the Iberian Peninsula during a period in which the majority of the population was Muslim. The property contains buildings associated with the rulers of the kingdom including Santa María del Naranco which once was a royal residence converted into a church along two other churches and the Asturians' royally-founded capital city of Oviedo.	*Partially comparable:* The kingdom of Asturias is chronologically partially compatible with the Viking Age, but the property provides less information on the historical transition to Medieval states.

TABLE 3.7 *Comparison between World Heritage Sites from the regional-chronological area of Medieval Europe.*

	b. includes significant examples of sites of a broad typological range	**c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good**	**d. a central maritime component in the transition from chiefdoms to early states**
	Partially comparable: Represents only one specific type of site	*Partially comparable:* As the site is fully excavated, it is no longer considered to be of impeccable archaeological integrity.	***Fully comparable:*** **The site can be seen as a late example of an "overseas settlement sites". As such, the Canadian government was asked to join this nomination, but declined the offer.**
	Partially comparable: Represents only one specific type of site which is comparable to earlier Viking Age buildings.	*Partially comparable:* High integrity and authenticity of the church. High relevance of those parts dating to the Viking Age. Excavated earlier church nearby. Lacks a broader variety of archaeological data.	*Not comparable:* The property includes no maritime component.
	Partially comparable: While not archaeological sites, the property contains a collection of sites which can be considered built versions of the type-sites listed: a seat of governance (royal residence) and an urban settlement. The property gives insights into how religion was part and parcel of the kingdom.	*Partially comparable:* High integrity and authenticity of the property but does not contain archaeological heritage comparable to the nominated series.	*Not comparable:* The property includes no maritime component.

TABLE 3.7

Property number and name	Criteria	Description of the "serial property"	a. greatly increases knowledge about the transition from chiefdoms to
496 Canterbury Cathedral, St Augustine's Abbey, and St Martin's Church	(i) (ii) (vi)	A series of the development of early Christian monuments of England dating from the 6th to the 12th century AD. It comprises a simple church built before the 8th century and remains of an abbey of the 10th century.	*Partially comparable:* Chronologically and regionally, this series of sites is comparable to the current nomination. It sheds light on the introduction of Christianity which is thematically related to the transition to Early Medieval states.
555 Birka and Hovgården	(iii) (iv)	Birka and Hovgården is an archaeological property located on islands in lake Mälaren, Sweden. Together the two archaeological sites give insights into the elaborate trading networks of Viking Age Europe. As the first site of a Christian congregation in Sweden, Birka also provides insights into the Christianisation of Viking Age Scandinavia.	***Fully comparable :*** **Birka and Hovgården is typologically and regional-chronologically fully comparable to the current nomination.**
545 Kremlin and Red Square, Moscow	(i) (ii) (iv) (vi)	Historic buildings of which parts date back to the 14th century. The fortified seat of governance and religious buildings are linked to all important historical and political events in Russia since the 13th century.	*Not comparable:* Even though chronologically generally comparable, the ensemble represents the centre of power of the established Russian Medieval state and not its early phase of development.
604 Historic Monuments of Novgorod and Surroundings	(i) (ii) (vi)	Situated on the ancient trade route between Central Asia and Northern Europe, Novgorod was Russia's first capital in the 9th century AD. Novgorod was an important trading centre for the Vikings. However, the World Heritage property only focuses on the built heritage and the development of a national school of stone-built architecture and art dating back to the 11th century AD, but with focus on the preceding centuries	***Fully comparable:*** **As Russia's first capital and a central trading centre, strategically located between Northern Europe and Central Asia in the Viking Age, Novgorod shares similar traits with the site of expansion in the current nomination. Furthermore, as the first capital it also sheds light on the advent of early states.**

	b. includes significant examples of sites of a broad typological range	c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good	d. a central maritime component in the transition from chiefdoms to early states
	Partially comparable: While not inscribed as archaeological heritage, the property contains an early church and remains of an abbey which can be compared to the religious monuments of the nominated series.	*Partially comparable:* High integrity and authenticity of the church. Remains of an Early Medieval abbey which can be considered archaeological heritage.	*Not comparable:* The property includes no maritime component.
	Partially comparable: Together, the two sites can be understood as examples of the type-sites of "urban settlements", "seats of governance" and with historical sources describing the presence of a "thing" can be classified as an "assembly site". The Swedish authorities have been asked to join the nomination, but decided against it. However, as noted by ICOMOS, Birka and Hedeby are considered to be comparable and thus the qualities of Birka and Hovgården can be seen as being covered by the component parts of the current nomination.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	***Fully comparable:*** **As a Viking Age trading centre, Birka is a distinct testimony to the role of the ship and the sea in the Viking Age.**
	Partially comparable: The ensemble encompasses a variety of different types of ecclesiastical and royal architecture which are partially comparable to the type of the nominated series.	*Partially comparable:* High integrity and authenticity of the property but does not contain archaeological heritage comparable to the nominated series.	*Not comparable:* The property includes no maritime component.
	Partially comparable: While not an archaeological site, the property contains a collection of buildings which can be considered built versions of the type-sites listed. The focus of the World Heritage property does, however, make the nomination less compatible as its focus is on the built heritage of the proceeding centuries.	*Partially comparable:* High integrity and authenticity of the property but archaeological remains only in layers underneath the area.	*Not comparable:* The city reflects long-distance trading networks via rivers. Strictly speaking, however, this is not a maritime component.

TABLE 3.7

Property number and name	Criteria	Description of the "serial property"	a. greatly increases knowledge about the transition from chiefdoms to
697 Jelling Mounds, Runic Stones and Church	(iii)	The Jelling burial mounds and one of the rune stones are striking examples of pagan Nordic culture, while the other rune stone and the church illustrate the Christianisation of the Danish people towards the middle of the 10th century AD.	***Fully comparable:*** **The property is clearly from the Viking Age and testifies to the transition from pagan religion to Christianity and to the formation of a Medieval state.**
731 Hanseatic Town of Visby	(iv) (v)	Visby was a Viking trading centre on the Swedish island of Gotland which developed into the centre of the Hanseatic League in the Baltic from the 12th to the 14th century. Its built heritage comprises ramparts, warehouses and dwellings from the 13th century.	*Partially comparable:* Visby originates clearly in the Viking Age but the nominated buildings are all from later times. Represents a developed type of Medieval town and provides therefore little information on the historical transition to early states.
1152 Þingvellir National Park	(iii) (vi)	National Park where the Icelandic Althing was established in AD 930 and continued to meet until 1798. The property includes the remains of the Althing itself and around 50 booths of the "thingmen".	***Fully comparable:*** **The property is clearly from the Viking Age and testifies to the transition to Christianity and to a Medieval Christian society.**
1137 Kernavė Archaeological Site	(iii) (iv)	This cultural landscape consists of archaeological sites from ten millennia, of which some were in use in the 8th to the 11th century AD. The sites from this period include settlements and hillforts.	*Partially comparable:* Furthermore, stretching over millennia, the property gives insights into the historical development of an area, and thereby is able to provide information about the transition from chiefdoms to early states. As this was not the focus of the nomination, the potential is not explored to any great extent in the property.
1318 Longobards in Italy. Places of the Power (568-774 A.D.)	(ii) (iii) (iv)	The Longobards ruled a vast territory in Italy between the 6th and 8th century AD, and the property consists of a selection of secular and religious buildings related to their reign. The property gives insights into the Longobard elite, their architecture and the role of religion in their reign.	*Partially comparable:* In contrast to the current nomination, the Longobards settled in the former territory of the Roman Empire and thus they did not bring their experience from abroad back home, but rather settled and transformed abroad. Nonetheless, the property gives insights into how the Longobards moved into new territory, how the adoption of Christianity was central to the Longobards' success in taking over control of the indigenous people of Latin culture and later how the Church became a central element in their rule. Thus while typologically different, the property shed similar light on the establishment of early new states in Medieval Europe and in particular the role which Christianity played in this process in Medieval Europe.

	b. includes significant examples of sites of a broad typological range	c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good	d. a central maritime component in the transition from chiefdoms to early states
	Partially comparable: The property encompasses only one of a series of Viking Age type-sites which reflect the transition to Early Medieval states in Northern Europe. Recent discoveries such as the palisade area, the ship setting and the longhouses are not part of the already inscribed property.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Partially comparable:* The inscription of one rune stone refers to a Danish kingdom also encompassing Southern Norway and which is based on the use of the ship and the sea.
	Partially comparable: While not an archaeological site, the property is a type of site represented in the nominated series as "urban settlements". The buildings, however, are of different construction than used in the Viking Age.	*Partially comparable:* High integrity and authenticity of the property but does not contain archaeological heritage comparable to the nominated series.	***Fully comparable:*** **As centre for the Hanseatic League, the property and its material clearly reflect the strong maritime component of the place.**
	Partially comparable: The property encompasses only one of a series of Viking Age type-sites which reflect the transition to Early Medieval states in Northern Europe.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Partially comparable:* The site testifies to the settlement of Iceland and thereby to the overseas expansion of the Norse based on the use of ship and sea.
	Partially comparable: The property contains some of the archaeological type-sites needed to establish the transition from chiefdom to states.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable* The property contains no maritime component.
	Fully comparable: **While not archaeological sites, the property consists of built versions of the type-sites including urban settlements and defensive structures as well as places of worship.**	*Partially comparable:* As built heritage, the property represents different sources for historical interpretation and does not contain archaeological heritage comparable to the nominated series. However, high integrity and authenticity of the property.	*Not comparable* The property contains no maritime component.

I Expressions of Society: 4 *L'Anse aux Meadows National Historic Site*, 312 *Monuments of Oviedo and the Kingdom of the Asturias*, 555 *Birka and Hovgården*, 604 *Historic Monuments of Novgorod*, 1152 *Þingvellir National Park*, 1137 *Kernavė Archaeological Site and Surroundings*, 1318 *Longobards in Italy. Places of the Power (568-774 A.D.)*, 545 *Kremlin and Red Square, Moscow.*

II Creative responses and continuity (Monuments, groups of buildings and sites): 58 *Urnes stave church, 545 Kremlin and Red Square, Moscow*, 496 *Canterbury Cathedral, St Augustine's Abbey, and St Martin's Church*, 555 *Birka and Hovg*ården, 604 *Historic Monuments of Novgorod*, 731 *Hanseatic Town of Visby*, 1318 *Longobards in Italy. Places of the Power (568-774 A.D.)*, 697 *Jelling Mounds, Runic Stones and Church.*

III Spiritual Responses: 58 *Urnes stave church,* 496 *Canterbury Cathedral, St Augustine's Abbey and St Martin's Church*, 697 *Jelling Mounds, Runic Stones and Church*, 1318 *Longobards in Italy. Places of the Power (568-774 A.D.).*

V Movement of Peoples: 4 *L'Anse aux Meadows National Historic Site*, 555 *Birka and Hovgården*, 731 *Hanseatic Town of Visby*, 1152 *Þingvellir National Park*, 1318 *Longobards in Italy. Places of the Power (568-774 A.D.).*

The comparison is based on the grading system developed in Table 3.1, and shows that most sites are only partly comparable. When the World Heritage Sites that more closely resemble the current nomination are considered, the World Heritage Sites can be identified as no more representative than the chosen component parts (for a more detailed account of the Viking Age sites compared, see also 3.2.5 for selection of the component parts).

3.2.3 COMPARISON WITH SITES ON THE TENTATIVE LISTS

The comparison with the sites on the Tentative Lists has followed the same typological, regional-chronological framework as the comparison with World Heritage Sites. At present, there are two properties which fall under the typological category of archaeological heritage and the regional-chronological category of "Vikings and Normans" in "Western and Northern Medieval Europe".

As the information on the sites on the Tentative Lists is less detailed than for those on the World Heritage List, a somewhat simplified regional-chronological framework has been drawn up. Rather than dividing all of Europe into a series of regions, the wider regional-chronological scope of Medieval Europe (5th to 15th century AD) is used. All Tentative Lists of States Parties within Europe have been examined, and the tentative properties falling within the regional chronological scope of Medieval Europe (5th to 15th century AD) have been taken into account. At present there are a number of properties which fall within this period (see Table A4 in the Appendix for a full overview).

- **Dating from or covering periods of use in the 5th – 7th century AD onwards:** 157 *Zadar - Episcopal complex*, 856 *Le noyau historique médiéval ou la 'Cuve' de Gand, et les deux abbayes qui sont à son origine*, 5282 *The natural and architectural ensemble of Stolac*, 1948 *The Ancient Plovdiv*, 1498 *System of Fortifications at the Confluence of the Rivers Danube and Váh in Komárno – Komárom*, 2031 *Cascata delle Marmore and Valnerina: Monastic sites and ancient hydrogeological reclamation works*, 1150 *Cattolica Monastery in Stilo and Basilian-Byzantine complexes*, 1161 *Monte Sant' Angelo and the Via Sacra Langobardorum*, 1164 *Taormina and Isola Bella*, 311 *The city of Bergamo*, 5006 *Volterra: Historical City and Cultural Landscape*, 981 *Cittadella (Victoria - Gozo)*, 1113 *Maltese Catacomb Complexes*, 5539 *Caričin Grad – Iustiniana Prima, archaeological sit*e, 5773 *Cultural Landscape of "Cave Towns" of the Crimean Gothia*, 5681 *The Twin Monastery of Wearmouth Jarrow*, 5527 *Early Medieval Monastic Sites*
- **Dating from or covering periods of use in the 8th century AD onwards:** 1268 *Ensemble historique de Santa Coloma*, 28 *Abbey of Kremsmünster*, 1791 *The Area of the Prespes Lakes: Megali and Mikri Prespa which includes Byzantine and post-Byzantine monuments*, 5525 *Western Stone Forts*, 5528 *The Royal Sites of Ireland: Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex*, 412 *La ville et le château de Vianden*, 1739 *Natural and Cultural Landscape of Danube Region*, 5133 *The Northern or Primitive Route (extension of the Route of Santiago de Compostella*
- **Dating from or covering periods of use in the 9th century AD onwards:** 14 *The monasteries of Tatev and Tatevi Anapat and the adjacent areas of the Vorotan Valley*, 1559/5093 *Sites of Great Moravia: Slavonic Fortified Settlement at Mikulcice - Church of St. Margaret at Kopčani*, 5526 *The Monastic City of Clonmacnoise and its Cultural Landscape*, 1498 *Town of Marvao and the craggy mountain on which it is located*, 668 *Historic Centre of Tchernigov*, 5563 *Doclea*
- **Dating from covering periods of use in the 10th century AD onwards:** 1893 *Saviour Transfiguration Church and St. Sophia Cathedral in the town of Polatsk*, 5361 *Le palais*

TABLE 3.8 *Overview of properties on the Tentative Lists which fall under the regional-chronology of "Vikings and Normans" in "Western and Northern Medieval Europe".*

NUMBER OF THE TL	NAME OF PROPERTY	TYPE OF PROPERTY	ICOMOS' CHRONOLOGICAL PERIOD	ICOMOS' REGION	STATES PARTIES
1781	Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)	Archaeological heritage Cultural landscape	Vikings and Normans	Western and Northern Medieval Europe	Denmark
5610	Meanders of the Upper Daugava	Mixed natural and cultural site	Vikings and Normans	Western and Northern Medieval Europe	Latvia

de Princes Evêques de Liège, 47 *The ancient town of Nicopolis ad* Istrum, 5565 *Arab-Norman Palermo and the cathedral churches of Cefalù and Monreal*e, 344 *Orvieto*, 5562 *Old Town of Bar, 549 L'ensemble rupestre de Basarabi*

- **Dating from covering periods of use in the 11th century AD onwards:** 1269 *Eglises romanes d'Andorre*, 1895 *SS. Boris and Gleb (Kalozha) Church in the city of Hrodna*, 49 *The Bachkovo Monastery,* 2015 *Diocletian's Palace and the Historical Nucleus of Split*, 1497 *Mediaeval Royal Seat and Parkland at Visegrád*, 1148 *Historic Centre of Parma*, 1160 *Romanesque Cathedrals in Puglia*, 1149 *Salento and the "Barocco Leccese"*, 5566 *The Prosecco Hills of Conegliano and Valdobbiadene. (Le Colline del Prosecco di Conegliano e Valdobbiadene*, 5135 *Loarre Castle*, 670 *Cultural Landscape of Canyon in Kamenets-Podilsk*, 2015 *Diocletian's Palace and the Historical Nucleus of Split (extension)*, 1501 *The Wooden Churches of the Northern Part of the Carpathian Basin*

- **Dating from or covering periods of use in the 12th century AD onwards:** 32 *Cathedral of Gurk*, 19 *Cultural Landscape of "Innsbruck-Nordkette/Karwendel"*, 30 *Heiligenkreuz Abbey*, 31 *Hochosterwitz Castle*, 1893 *Kamyanets Tower*, 1712 *Leuven/Louvain, bâtiments universitaires, l'héritage de six siècles au sein du centre historique,* 5607 *Stećaks - Mediaeval Tombstones*, 5092 *The historic urban site of Počitelj*, 5281 *The natural and architectural ensemble of Blidinje*, 50 *The town of Melnik and the Rozhen Monastery*, 5104 *City of Motovun*, 2017 *Lubenice*, 5102 *Primošten Vineyards*, 162 *Varazdin - Historic Nucleus and Old Town (the Castle)*, 1875 *Agia Paraskevi at Geroskipou (Five-domed churches)*, 5775 *Mining Cultural Landscape Erzgebirge/Krušnohoří*, 1564 *The Karlstejn Castle*, 1716 *Kuressaare Fortress*, 1369 *The Naumburg Cathedral and the landscape of the rivers Saale and Unstrut an important dominion in the High Middle Ages*, 1366 *Westwork and Civitas Corvey*, 280 *The Tihany Peninsula*, 340 *Historic Centre of Lucca*, 327 *Historic centre of Pavia and Chartreuse*, 5010 *The Porticoes of Bologna*, 5005 *The Transhumance: The Royal Shepherd's Track*, 1821 *Trakai Historical National Park*, 5498 *Royal Salt Mines in Wieliczka and Bochnia (extension to the Wieliczka Salt Mine)*, 1638 *Great Pskov*, 1110 *The Bolgar historical-architectural complex*, 5536 *Fortified Manasija Monastery*, 5540 *Historical place of Bač and its Surroundings*, 1735 *Extension of the location of Spišský hrad and its associated cultural monuments with Levoča and the work of Master Paul in Spiš*, 580 *Gemer and Abov churches with the Medieval wall paintings*, 1733 *System of Fortifications at the Confluence of the Rivers Danube and Váh in Komárno – Komárom*, 1734 *The concept of the lenticular historical town core of Košice City*, 5128 *Mesta Livestock trails*, 1228 *The Ribeira Sacra, Lugo and Orense*, 5575 *Trading Posts and Fortifications on Genoese Trade Routes. From the Mediterranean to the Black Sea*

To a great extent the Tentative Lists follow the same patterns as the World Heritage Sites: Whereas there are somewhat more archaeological properties from the period, the majority of the sites consist of built heritage and belong to the later stages of the Medieval period. There are at present a number of sites which fall under the typological category of archaeological heritage dating from the period AD 500-1500. They are: 1871 *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)*, 5610 *Meanders of the Upper Daugava*, 5528 *The Royal Sites of Ireland: Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex*, 5525 *Western Stone Forts*, 5526 *The Monastic City of Clonmacnoise and its Cultural Landscape*, 5527 *Early Medieval Monastic Sites*, 5773 *Cultural Landscape of "Cave Towns" of the Crimean Gothia*, 1638 *Great Pskov*, 1110 *The Bolgar historical-architectural complex* , 981 *Cittadella (Victoria - Gozo)*, *5539 Caričin Grad – Iustiniana Prima, archaeological site* and 5117 *Complex of the Sudak Fortress Monuments of the 6th - 16th c*. All of these fall under the chosen themes for the thematic analysis of I Expressions of Society, II Creative Responses and Continuity, III Spiritual Responses and V Movement of Peoples:

I Expressions of Society: 1871 *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)*, 5528 *The Royal Sites of Ireland: Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex*, 5525 *Western Stone Forts* and 5526 *The Monastic City of Clonmacnoise and its Cultural Landscape*, 5773 *Cultural Landscape of "Cave Towns" of the Crimean Gothia*, 1638 *Great Pskov*, 1110 *The Bolgar historical-architectural complex*, 981 *Cittadella (Victoria - Gozo)*, 5539 *Caričin Grad – Iustiniana Prima, archaeological site.*

II Creative Responses and Continuity (Monuments, groups of buildings and sites): 1871 *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)*, 5528 *The Royal Sites of Ireland: Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex*, 5525 *Western Stone Forts*, 5681 *The Twin Monastery of Wearmouth Jarrow* and 5526 *The Monastic City of Clonmacnoise and its Cultural Landscape*, 5773 *Cultural Landscape of "Cave Towns" of the Crimean Gothia*, 1638 *Great Pskov*, 1110 *The Bolgar historical-architectural complex*, 981 *Cittadella (Victoria - Gozo)*, 5539 *Caričin Grad – Iustiniana Prima, archaeological site.*

III Spiritual Responses: 1871 *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)*, 5526 *The Monastic City of Clonmacnoise and its Cultural Landscape*, 5681 *The Twin Monastery of Wearmouth Jarrow,* 5527 *Early Medieval Monastic Sites*.

V Movement of Peoples: 1871 *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)* and 5610 *Meanders of the Upper Daugava.*

The comparison is based on the grading system developed in Figure 3.1, and shows that the *Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid* is the property on the Tentative Lists which is the best match for the nomination in the regional-chronological category, and has some potential as a future component part of the nominated property. This is discussed further in the section on the selection of sites in this chapter. It does, however, only cover some aspects of the thematic range of "Viking Age Sites in Northern Europe". Another property, *Meanders of the Upper Daugava,* is comparable in terms of chronology and a diverse archaeological heritage in which Vikings also played a role. However, the property is thematically mainly a natural site and aims rather to at illustrate the multicultural cohabitation of different cultural groups and their effect on the landscape.

Of the other properties, especially the collection of sites from Early Medieval Ireland has elements in common with the current nomination. This is not surprising as the Irish Iron Age shares several cultural-historical traits with the Scandinavian region as neither was incorporated in the Roman Empire. Thus, just as in Scandinavia, the conversion to Christianity as well as the establishment of early kingdoms develops from a "native" population. However, the expansive element seen in the Viking transition from chiefdoms to early states is not present to the same extent in the Irish material.

More properties on the Tentative Lists deal with the theme of Early Medieval state formation. *The Royal Sites of Ireland*, *Cultural Landscape of "Cave Towns" of the Crimean Gothia*, *Great Pskov* and *The Bolgar historical-architectural complex* are therefore, in many aspects, comparable to the nominated property, while showing clear disparities in other respects. With the exception of sites from Ireland, the material and architectural consequences of Medieval state formation in these properties appear notably different from the type-sites presented in this nomination, reflecting the specific cultural and geographical setting of the illustrated regions and cultures. Another notable distinction is the maritime component: While the Viking Age developments were greatly dependent on seafaring

and the role of the ship, and took place accordingly in a large region dominated by the sea, the other presented properties mainly reflect processes confined to land areas in Ireland, the Crimea and Russia. Furthermore, none of these properties aims at illustrating the process of Medieval state formation via a broad range of highly significant sites, but focuses rather on either one large site (*Great Pskov, The Bolgar historical-architectural complex*) or one site type (*The Royal Sites of Ireland*, *Cultural Landscape of "Cave Towns" of the Crimean Gothia)*.

A series of other properties on the Tentative Lists fit into the chronological and cultural context of the Viking Age but concentrate on only one site, site type or theme, in contrast to the present nomination. Consequently, we find monasteries (*The Monastic City of Clonmacnoise and its Cultural Landscape, Early Medieval Monastic Sites, The Twin Monastery of Wearmouth Jarrow)*, fortifications (*Complex of the Sudak Fortress, Western Stone Forts)* or towns (*Cittadella, Caričin Grad – Iustiniana Prima)* each with specific themes, all of which are related to the development of Early Medieval states (early Christianity, development of power structures) but cover only fragmentary aspects of this narrative.

FIGURE 3.3 *The Norse established things in newly settled lands. A sign pointing to Tingwall (Þingvellir/Parliamentary Field) on the Shetlands Islands. ©Einar A.E. Sæmundsen.*

Name	Proposed-criteria	Description of the nominated property
Viking Age Sites in Northern Europe	(iii) (iv)	The serial transnational property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th to 11th century AD. The serial property consists of the archaeological remains of a trading town and an assembly site as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places from the Viking Age covering the entire period.

Tentative property number and name	Criteria	Description of the tentative property	a. greatly increases knowledge about the transition from chiefdoms to early states in Medieval Europe
1871 Church ruin at Hvalsø, episcopal residence at Gardar, and Brattahlid (A Norse/Eskimo cultural landscape)	(iii) (iv) (v) (vi)	The property consists of remains of Thule Eskimo settlements from the Middle Ages to the early 20th century. Thus it covers the period when the Thule Eskimos first encountered and developed relations with the new settlers. The end result of this cultural encounter was the gradual process through which the Thule Eskimos abandoned their old settlements and building traditions. The nominated area also includes the ruin of the Norse Medieval stone-built church of Hvalsø dating from around 1300 and the remains of a stone-built hall in the same style, the episcopal residence at Gardar from the 12th century and the 10th century remains of the Norse Brattahlid settlement and church.	*Partially comparable:* Chronologically, the property covers the later stages of the current nomination. However, being strongly connected with the settlement history of Greenland, it covers only few aspects relevant to Early Medieval state formation.
5610 Meanders of the Upper Daugava	(v) (viii) (x)	This is a mixed property of which the primary focus is on the natural features. The Upper Daugava valley has nine unique meanders and the cultural heritage is proposed as "excellent example of multicultural living from ancient Balts, Vikings and crusaders" dating from the 10th and 11th centuries AD. Archaeological sites include burial grounds, hillforts, castle ruins, palaces, churches and settlements.	*Partially comparable:* Chronologically and regionally, this mixed landscape is comparable to the current nomination. However, the link to Early Medieval state formation seems less pronounced.
5528 The Royal Sites of Ireland: Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex	(iii) (iv) (vi)	This is an archaeological serial property consisting of the major royal inauguration, ceremony and assembly, representing each of the four Irish provinces Ulster, Leinster, Munster and Connaught and the region of Meath. These sites are strongly linked to myth and legend and are associated with the transformation of Ireland from paganism to Christianity. While the focus of this series is the sites' role as Iron Age and early Christian sites, their history dates back to the Bronze Age and Neolithic. As such, they represent sites of continuity as well as transition between paganism and Christianity.	***Fully comparable:*** **Chronologically and regionally, this series of sites is comparable to the current nomination. Furthermore, it also sheds light on the transition between paganism and Christianity in another region which had not been under the Roman Empire**

FIGURE 3.9 *Comparison between* the *European Tentative Lists' archaeological sites from the period of 700–1100 AD.*

	b. includes significant examples of sites of a broad typological range	**c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good**	**d. a central maritime component in the transition from chiefdoms to early states**
	Partially comparable: Typologically, the site falls within the category of archaeological heritage. The site can indeed be considered an additional late "overseas settlement site" in a similar manner as Grobiņa is an early one. However, Greenland has chosen not to include this site in the current nomination as it also has a strong focus on the development of the Thule Eskimos.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	***Fully comparable:*** **The site can be seen as a late example of an "overseas settlement sites" in the Viking Age and clearly testifies to the maritime character of society.**
	Partially comparable: Comprising various historic landscape-types, the area features also a variety of archaeological type-sites.	*Partially comparable:* Rich archaeological material	*Partially comparable:* The archaeological heritage shows contacts as far as Russia and Sweden and demonstrates the important role of the Daugava as waterway to the Baltic Sea. Not comparable:
	Partially comparable: The information from the Irish authorities suggests the series is comparable to sites such as Jelling, Thingvellir and Birka. From a typological point of view, this series is therefore partially comparable to the current nomination including type-sites such as seats of governance and assemblies.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable:* The maritime aspect is less pronounced in the Irish sites.

FIGURE 3.9

Tentative property number and name	Criteria	Description of the tentative property	a. greatly increases knowledge about the transition from chiefdoms to early states in Medieval Europe
5525 Western Stone Forts	iii) (iv) (v)	This series contains a selection of the most common Early Medieval (700-1000 AD) settlement forms in Ireland, the ring fort which in essence is an enclosed homestead or farmstead. The sites are described as belonging to the sub-group of cashels, ring forts with single dry stone walls. However, the selected sites are distinguished from the vast majority of other cashels by having one or more exceptionally thick and high enclosing walls. Their circular layout is nonetheless typical for the later prehistoric, maritime communities of the North Atlantic seaboard of Western Europe. Based on early historical sources (AD 700-900) and archaeological excavations, these ring forts have been considered to be royal residences.	*Partially comparable:* Chronologically and regionally, this series of sites is compatible to the current nomination but thematically the stone forts are not associated with the development of Medieval societies.
5681 The Twin Monastery of Wearmouth Jarrow	(ii) (iii) (iV) (Vi)	Anglo-Saxon monastery dating from the late 7th century AD with two liturgical centres: St Peter's at Wearmouth and St Paul's at Jarrow, some 14.2 km (8.8 miles) apart. Home of the important scholar Bede, place of one of the greatest libraries at the time, and thus one of the most influential monastic sites in Europe. One of the few examples of Anglo-Saxon architectural style and the building techniques in England.	*Partially comparable:* The property is chronologically comparable as its decline is even linked to repeated threat and destruction by Vikings. It testifies to the introduction of stone architecture to British Isles, the development of early Christianity in Britain and to an early stage of Western European Christian monasticism. The thematic value is thus mainly focused on religious aspects and relates only to a limited degree to early state formation.
5773 Cultural Landscape of "Cave Towns" of the Crimean Gothia	(iii) (v) (vi) (viii)	The series is a mixed nomination and consists of settlements sites of hundreds of manmade caves dating from the 6th to the 15th century AD carved into the slopes and plateau of isolated rock hills in the Crimean Mountains. Especially two sites were the main centres for the formation of medieval Crimean Gothia and the principality of Theodoro in the contact zone between the Byzantine civilisation and the barbarian world. The manmade caves had defensive, religious and administrative purposes.	***Fully comparable:*** **The site corresponds chronologically to the nominated series and is linked to the development of the early Gothic state and its successor, the principality of Theodoro.**

	b. includes significant examples of sites of a broad typological range	c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good	d. a central maritime component in the transition from chiefdoms to early states
	Partially comparable: The property is one of the earliest surviving examples of a monastic foundation in the British Isles but lacks other type-sites of Anglo-Saxon England.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable:* A maritime component is not visible in the material evidence.
	Partially comparable: The property is one of the earliest surviving examples of a monastic foundation in the British Isles but lacks other type-sites of Anglo-Saxon England	*Partially comparable:* Includes all of the known standing and buried remains of both the Anglo-Saxon monastic complexes as architectural remains in the original monastic churches and below-ground remains of the associated monastic complexes. Surviving above ground structures and substantial archaeological remains are remarkably intact for their period, but are largely excavated.	P*artially comparable:* The monastery had direct access to rivers and to the open sea, providing easy access by land and water. However, the harbour facilities are not known or included.
	Partially comparable: The cave towns encompass caves for various purposes, such as administration, religion and defence. However, the material evidence seems to concentrate mainly on the type-site "cave dwellings" which is not comparable to Viking Age sites at all.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable:* A maritime component is not visible in the material evidence.

FIGURE 3.9

Tentative property number and name	Criteria	Description of the tentative property	a. greatly increases knowledge about the transition from chiefdoms to early states in Medieval Europe
1638 Great Pskov	(i) (ii) (iv)	The property is an historical and architectural ensemble in the centre of Pskov and its surroundings comprising fortifications, religious architecture, natural monuments and built and archaeological heritage from the 7th – 20th centuries. The monuments are associated with two legendary founders of the old Russian state who also converted Russia to Christianity.	***Fully comparable:*** **The site corresponds chronologically to the nominated series and is linked to the development of the early Russian state.**
1110 The Bolgar historical-architectural complex	Criteria missing	The Bolgar settlement site dates from the 10th – 15th centuries encompassing archaeological structures, fortifications and ruins of monumental brick-built tombs and religious buildings. The city was the economic, political and cultural centre of Volga Bolgaria, the Bolgar state in the 13th – 14th centuries. Repeatedly destroyed, the sites were abandoned and served as a sacred place for orthodox Muslim pilgrims. The range of represented structures encompasses dwelling, trade, architectural and defensive structures	***Fully comparable:*** **The site corresponds chronologically to the nominated series and serves as testimony for the early Bolgar state.**
981 Cittadella (Victoria - Gozo)	(ii) (iii) (iv) (v)	Fortified site on promontory with archaeological remains from the Bronze Age to the 16th century AD and some standing buildings from later times. The place was mainly used as an urban settlement, administrative centre and military outpost.	*Partially comparable:* Only part of the archaeological remains are from the Middle Ages. It is difficult to link them to the formation of Early Medieval states.
5539 Caričin Grad – Iustiniana Prima, archaeological site	(ii) (iii)	Archaeological and architectural remains of the town Iustiniana Prima, built by the Byzantine emperor Justinian I (AD 527-565). Only short-lived, it was built as new administrative centre and archbishopric seat of the Illyricum province so as to strengthen the rule of Byzantium and help spread Christianity.	*Partially comparable:* Of Late Antique rather than Early Medieval date, the property attests to the enforcement of rule of the established Byzantine Empire.
5117 Complex of the Sudak Fortress Monuments of the 6th - 16th c.	(ii) (iv) (v)	A complex of monuments of Medieval archaeology and architecture of the 6th – 16th centuries. Mainly Medieval fortifications and religious architecture but also archaeological remains from the 3rd – 7th centuries. The town became a trading centre in the 11th – 12th centuries.	*Not comparable:* Developing under several rulers from the Byzantine to the Russian Empire for nearly two millennia, the property can hardly be linked to Early Medieval state formation.

	b. includes significant examples of sites of a broad typological range	c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good	d. a central maritime component in the transition from chiefdoms to early states
	Partially comparable: The ensemble seems to comprise a number of type-sites comparable to the Viking sites in function. They are not comparable, however, when it comes to building technique and material.	*Partially comparable:* Among buildings, the property also comprises archaeological heritage.	*Not comparable:* A maritime component is not visible in the material evidence.
	Partially comparable: The range of represented types-sites encompasses structures for dwelling, trade, defence, religion, burial.	***Fully comparable:*** **The site shows a wide range of archaeological material and data as well as remains of built structures. Abandoned for centuries, the site has good potential for high integrity and authenticity.**	*Not comparable:* A maritime component is not visible in the material evidence.
	Partially comparable: The archaeological remains from the Middle Ages can at least be attributed to the type of urban settlement.	***Fully comparable:*** **The Medieval remains are mainly archaeological deposits, some standing structure are conserved up to 2 m in height.**	*Not comparable:* A maritime component is not visible in the material evidence.
	Partially comparable: The remains of the town encompass some building types which correspond to the type-sites of the nominated property such as sites of governance, religious buildings, fortifications, urban settlements. The construction technique in stone is notably different.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable:* A maritime component is not clearly visible in the material evidence.
	Partially comparable: The remains of the town encompass some building and site types which correspond to the type-sites of the nominated property such as a port, fortifications, urban settlement, religious buildings, spreading, however, over several historical periods. The construction technique in stone is also notably different to Viking Age buildings.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	***Fully comparable:*** **The material evidence testifies to the maritime activities of several empires in the Black Sea.**

FIGURE 3.9

Tentative property number and name	Criteria	Description of the tentative property	a. greatly increases knowledge about the transition from chiefdoms to early states in Medieval Europe
5527 Early Medieval Monastic Sites	(iii) (iv) (vi)	The serial property comprises six Early Medieval monastic cities founded in the 6th and 7th centuries AD.	*Partially comparable:* The series corresponds chronologically to the nominated series but focuses thematically rather on Christianisation and the development of learning in Early Medieval Europe.
5526 The Monastic City of Clonmacnoise and its Cultural Landscape	(iv) (v)	Founded in the 6th century AD, Clonmacnoise's main period of growth was between the 8th and the 12th century. Archaeological excavations have revealed the town was a civitas and an early example of a city developing outside the Roman Empire. The complex is also known to have been raided by Vikings.	*Partially comparable:* Chronologically and regionally, this series of sites is compatible to the current nomination. Significant as testimony to the development of early Medieval Christianity in the North Atlantic, it relates less to early state formation.

To sum up, it is fair to argue that the archaeological heritage of Medieval Europe is relatively underrepresented on the current Tentative Lists of the States Parties of Europe. Rather than archaeological remains, it is the built heritage which dominates the sites on the Tentative Lists. This adds further weight to the conclusions of 3.2.3 and highlights the fact that the remains from the Viking Age are of an inherently different nature to many of the remains from Medieval Europe, which most commonly are associated with the built, Christian heritage. As such, the current nomination represents an addition to the World Heritage List as it enables a more diversified picture of Medieval Europe to emerge.

3.2.4 COMPARISON WITH OTHER KNOWN PROPERTIES

The comparison of the nominated property with properties on the World Heritage List and the Tentative Lists so far has clearly revealed a lack of archaeological heritage testifying to the development of early Christian states in Medieval Europe. Consequently, beyond those properties, it is also important to compare the nomination to other archaeological sites and properties of Medieval Europe.

Based on the chronological-regional analysis above, there are a number of other archaeologically and historically defined "cultural regions" associated with the regional-chronological category of Medieval Europe which can display sites comparable to the archaeological material of the Viking Age with respect to type-sites and historical processes, such as the Merovingian and Carolingian Empire and Anglo-Saxon England as well as the early Slav states, the Kievan Rus and Russia in Eastern Europe. They all, however, lack the strong maritime component that characterises the development in the Viking Age. Even though all regions had ship-building traditions which enabled seafaring, the ship and the sea lack such a crucial economic, political, social and symbolic role in any of them. A comparison of this series with archaeological heritage sites from all of these regions and chronological phases would clearly be beyond the scope of this survey.

In the framework of this analysis, an example will therefore be chosen which shows most analogies to the nominated property: One of those cultural regions not featuring on the World Heritage List or on the Tentative Lists, but part of the wider regional-chronological category of the current nomination, is the Wadden Sea coast and Frisia. Perhaps more than other cultural regions of Northern and Western Medieval Europe, the Wadden Sea coast and Frisia share the maritime element with the Viking Age of Northern

	b. includes significant examples of sites of a broad typological range	c. provides a wide range of material sources of high scientific relevance and consists of sites w hose integrity and authenticity is outstandingly good	d. a central maritime component in the transition from chiefdoms to early states
	Partially comparable: The property encompasses monastic towns which are partially comparable to the urban settlement and religious monuments of the nominated series.	***Fully comparable:*** **Rich archaeological material of high value and integrity.**	*Not comparable:* A maritime component is not clearly visible in the material evidence.
	Partially comparable: The property comprises ruins of an Early Medieval insular monastic city and is thus partially comparable to the urban trade centres of the Viking Age. The core visual remains are standing stone ruins of built heritage, and as such stand in contrast to the monuments of the current nomination.	*Partially comparable:* Mainly ruins of stone buildings, the monastic site is on the verge between archaeological and built heritage.	*Not comparable:* A maritime component is not visible in the material evidence.

Europe, while the social, economic and political developments in the region, as well as its archaeological heritage, bear resemblance to the processes in the Viking Age.

A people referred to as "Frisii" were first referred to by Roman writers such as Pliny and Tacitus in their descriptions of the area around the present-day Dutch provinces of Utrecht and South Holland. However, while the Frisians have also been described in historical sources, characteristic "Frisian artefacts" have proved more difficult to identify in the archaeological record (Kramer & Taayke 1996: 9). Consequently, it is not known whether the term Frisians referred to a people or rather was a synonym for traders from a loosely-defined geographical area (Kramer & Taayke 1996: 18). Nonetheless, it is commonly accepted that the Frisians' core region was the western parts of the Wadden Sea and that their area of interaction stretched from England and the Frankish Empire in the west to Denmark and the Baltic in the east. This geographical demarcation is largely based on linguistic studies. Furthermore, Helgoland is known to have been an area settled by Frisians, as is the area known as Nord-Friesland in Northern Germany, consisting of a number of islands such as Sylt, Amrum and Föhr.

The rise of the Frisians is closely connected to the Migration period, when Jutes, Angles and Saxons migrated across the North Sea to England. This increased movement of people led to an expansion of personal and political networks which eventually tied the regions together into one larger North Sea complex. As a result of the migrations, the Frisians developed from a fairly egalitarian farming society in the Roman period into hierarchical kingdoms by the AD 600s. However, it is more problematic to speak of transition towards an early Frisian state. In AD 734, the Frisians were defeated by Charles Martel and the first Frisian kingdom was brought to an end.

The archaeological heritage in the Wadden Sea Region shows a great diversity of sites (see Table A5 in the Appendix). The Wadden Sea coast was divided into small islands surrounded by tidal flats and bogs connected by channels which provided traffic routes for the Frisians. This natural situation fostered the development of a type of flat-bottomed ship ideally suited for extensive maritime trade along the Wadden Sea coast and the adjacent areas with barely any harbour facilities. It also prompted the Frisians to build their houses on artificial mounds, protecting them against floods. Remains of Early Medieval dwelling mound alignments, as seen at Wijnaldum and Dongjum, could be seen as examples of this excellent adaption to a quickly changing landscape. Wijnaldum or a settlement site at Sievern at the Weser river could be regarded as re-

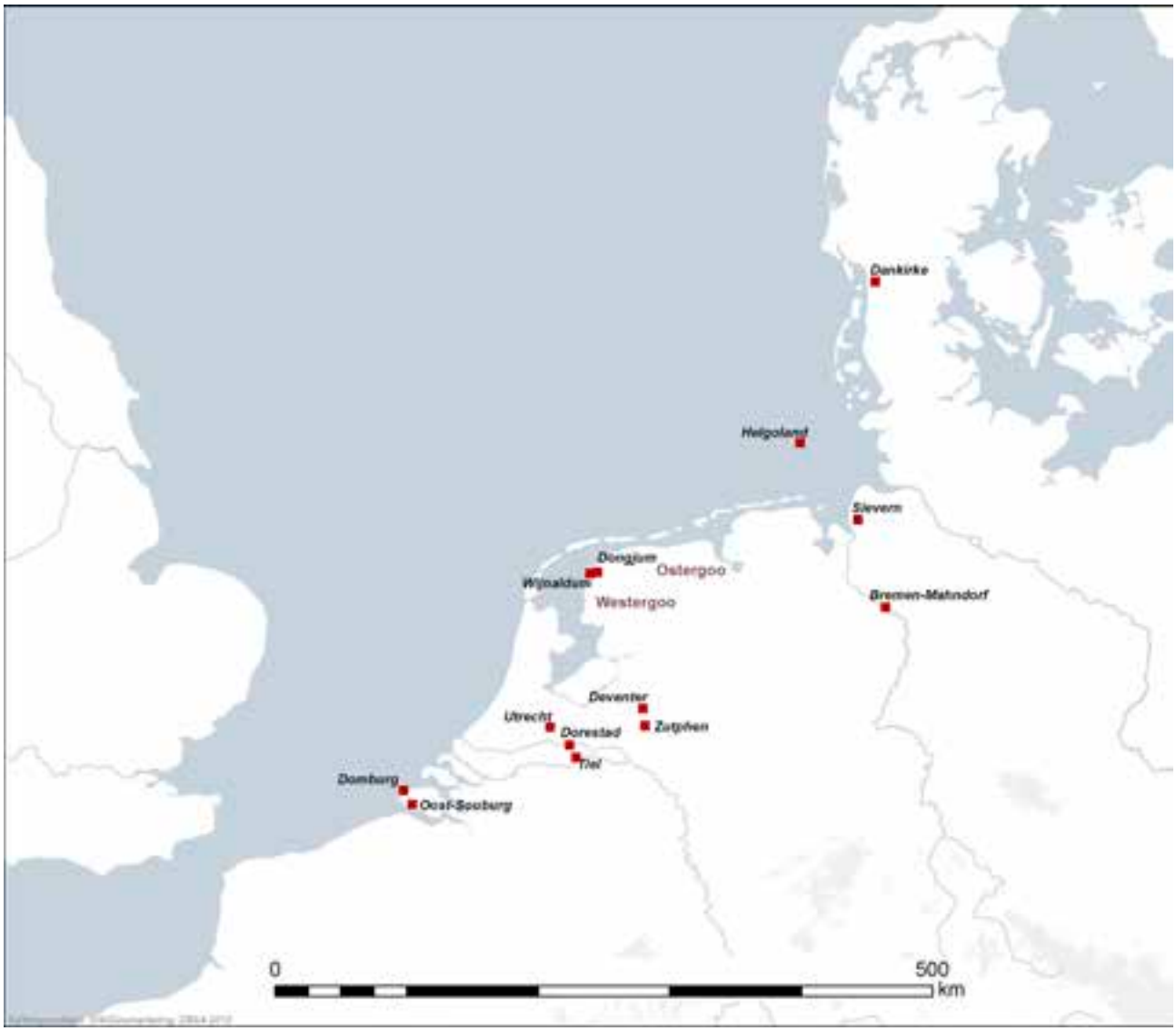


FIGURE 3.4 *Frisian sites in the Wadden Sea Region.*

gional central places, but petty kings were more probably connected with Utrecht and Dorestad. Circular ring forts, like the ones at Oost-Souburg and Domburg from the 9th century AD, probably served as protection against Viking raids. The construction of earthen embankments against seasonal flooding started in the late 10th and early 11th century in Nord-Holland and Friesland and spread throughout the Wadden Sea area in ensuing centuries. Following Germanic traditions, the Frisians also used assembly sites, but no Early Medieval meeting place is preserved. Burial sites are known as large burial grounds consisting of low mounds.

Connections to England resulted in a growth in trade from which the Frisians benefitted. Consequently, alongside traditional production, where livestock farming played a central role, shipping and commerce became increasingly important for the Frisians. Written sources describe how the Frisians' products such as wool and salt were traded; both of these are of course difficult to trace in the archaeological record. Accordingly, there are no archaeological equivalents to the sites of mass production, such as the stone quarries of Northern Europe. However, traces of large-scale salt extraction are preserved in the North Frisian Wadden Sea. Nonetheless, trade is testified

to through the continued use of the compounds of the former Roman areas and the presence of coins and imported pottery. The expansion of the trading networks was possible due to the strategic location of Frisian homelands around the North Sea, at the time known as "Mare Frisicum". Indeed, the Frisian urban settlement of Dorestad, on the border of the Frisian and Frankish areas, was one of the main transit ports in Europe. Growing in importance, Dorestad was conquered by the Franks shortly after the Frisians had established it. Trade with neighbouring regions was primarily conducted in the contact zones at the edge of the traditional Frisian settlement areas, as archaeological sites like Bremen-Mahndorf in Lower Saxony or Dankirke near Ribe in Denmark show. After an initial phase of non-permanent trading places, a few permanent urban emporia, like Dorestad or possibly Domburg in the Netherlands, developed in the 7th century AD.

While one can, through historical sources, draw up a picture of the Frisian area in the Early Middle Ages, it is more difficult to trace the development of Medieval states referring to archaeological sources. Many of the above-mentioned archaeological remains are either located under modern buildings or have been removed as part of later construction. Only few archaeological monuments, sites and landscapes from the Early Middle Ages have survived to a greater extent. Consequently, the archaeological heritage of the Wadden Sea comprises only a small number of sites of high scientific impact which have retained a good state of conservation. In conclusion, the archaeological heritage of the Wadden Sea seems too elusive to be able to cover a range of type-sites which could serve as outstanding examples testifying to the transformation to Medieval states.

3.2.5 SELECTION OF THE COMPONENT PARTS

Methodology

In the following section, the selection of the component parts connected with each archaeological type-site associated with processes describing the transition between chiefdoms and early states, described in 2.a.2, is outlined. For the selection of sites, an advisory board was constituted consisting of Viking Age and World Heritage experts from various disciplines in the participating countries in this nomination. This board has identified significant processes and type-sites characterising this transition and these were used as parameters for the identification of potential sites for comparison and for justification of the final selection of sites for this nomination. The defined type-sites are: urban settlement sites, mass-production sites, fortification structures, assembly sites, burial sites, seats of governance with religious monuments and sites of expansion. Each type-site will be briefly described before a presentation and an evaluation of relevant sites are provided. In order to avoid too much repetition, it should be noted that the component parts are only briefly described in the comparative analysis. For a more detailed description, see 2.a.3.

It should be noted that the comparative framework for the selection of sites has been confined to the ICOMOS regional-chronological categories which specifically deal with the Vikings (i.e. Vikings (and Normans) of Northern and Western Europe, and early contact (Vikings (Basques, Bretons etc.)) of the Colonial period of North America). The reason for this is that the geographical scope of the Viking Age is generally understood as being the Scandinavian homelands (present-day Denmark, North Germany, Norway and Sweden), the newly settled islands in the North Atlantic and the large area of interaction where Vikings raided, conquered and settled, established trading posts or otherwise interacted with local populations (see Chapter 2.a *The culture-historic setting* for more details). Viking Age sites outside Scandinavia and the North Atlantic islands mainly show finds, layers and structures such as burials, houses etc. that can be attributed to Scandinavians or at least to Norse traditions. However, these sites were otherwise strongly influenced or even dominated by archaeological material from indigenous cultural groups. As with sites in Scandinavia, many of them extended both into earlier and later phases. York, for example, existed as a trading place already in Anglo-Saxon times but was occupied and extended by the Vikings' great army in AD 866 and then retaken by Anglo-Saxon King Edred in AD 954 (Richards 1991). Consequently, the presence of Viking Age material in archaeological layers in York is strong but not exclusive. As in Normandy, in many of the already populated areas Viking Age Scandinavians also quickly adapted to local religion, traditions, material culture and language.

Consequently, even though the British Isles should for example generally be regarded as part of Northern Europe and the Viking Age, the situation there is inherently different from that in Scandinavia and on the North Atlantic islands as a result of a mixture of local Anglo-Saxon, Scottish and Irish populations as well as temporary Norse influences.

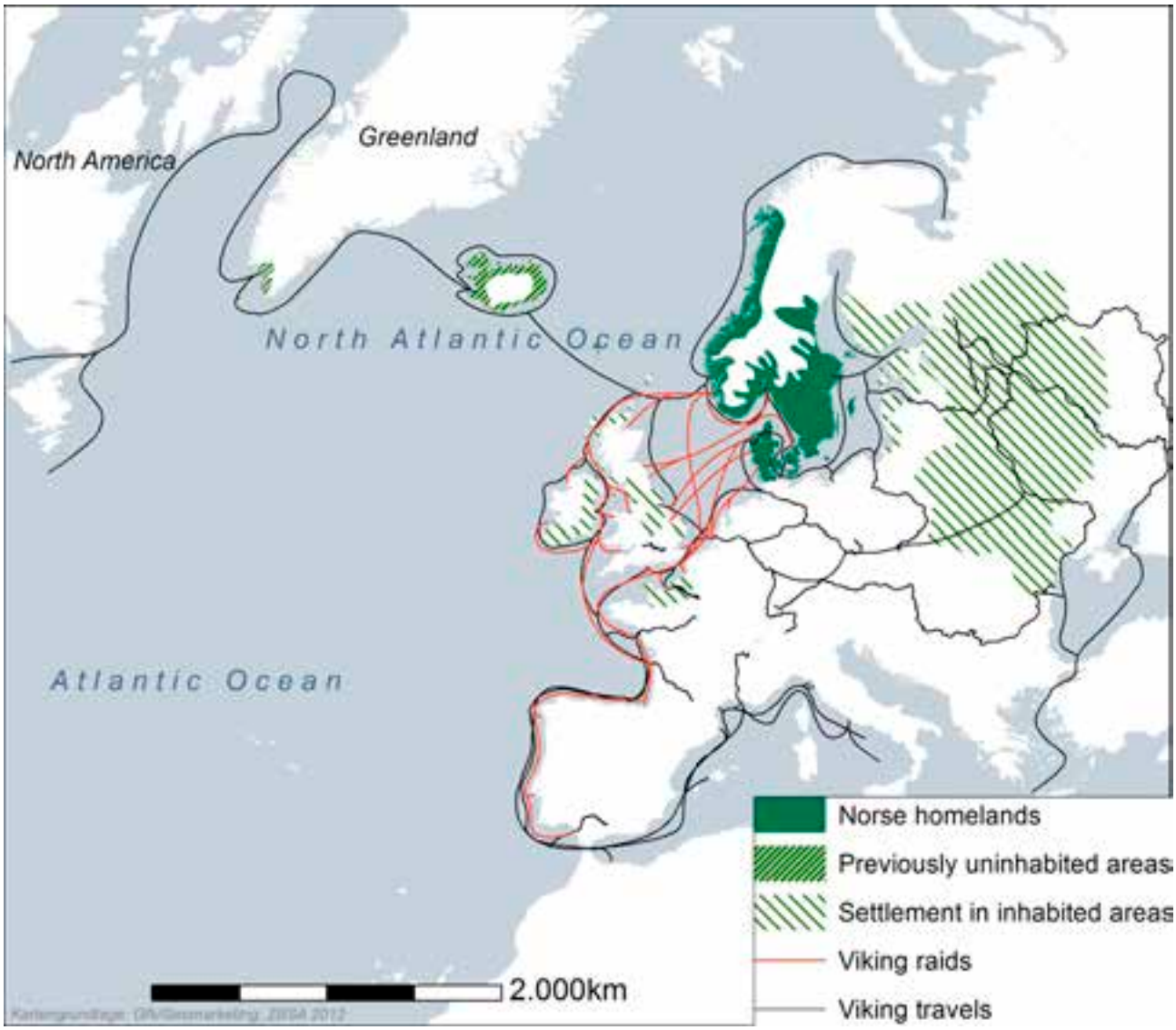


FIGURE 3.5 *Map showing the core area and the area of interaction.*

Distinct Scandinavian presence in these areas of interaction was mostly of a temporary nature and archaeological and other traces of Norse presence gradually disappear from the historical records. Viking Age evidence outside Scandinavia and the North Atlantic islands is therefore very complex and difficult to understand with regard to Norse presence and interaction, adaption and exchange relative to local populations. However, this archaeological evidence is even more difficult to interpret with respect to its significance for the transition to medieval societies in the Viking homelands. To include sites testifying to social and political developments in other cultural groups of Northern Europe, like the Anglo-Saxons or the Slavs, would be clearly beyond the scope and theme of this nomination. In the light of this nomination, the extent to which sites outside Scandinavia and the North Atlantic islands are in general suitable as outstanding and/or representative examples for type-sites and for processes typical for the changes in Norse societies is debatable, unless they are taken as examples highlighting exchange and influences fostering new developments. The geographical scope for the selection of sites of this serial nomination must therefore be based on these considerations. In order to explain the transition to Christian states in Northern

Europe, in the context of the Viking Age, it has therefore been decided to concentrate on the region where this process actually centred. Consequently, the selection of most type-sites for this series is confined to archaeological sites from Scandinavia and the North Atlantic islands, the core region of Scandinavian settlement in the Viking Age. All areas where Norse people have mainly interacted with local groups and eventually assimilated or otherwise disappeared from the archaeological record are discussed separately and are examined for the selection of sites testifying to overseas settlement and cross-cultural communication.

Finally, the criteria for which the sites have been evaluated in comparison to other sites and the component parts selected are:

1. The sites' high scientific value and their important contribution to our understanding of the transformation of chiefdoms to Christian states
2. The high degree of integrity of archaeological remains
3. The extent to which the sites, through written sources and portable objects, can be linked to each other

Each type-site is a significant and distinctive archaeological source for the transformation to early Christian states in Northern Europe. Each type is, however, also diagnostic for specific economic, political, social and religious processes which are used in this nomination to describe the development of Medieval states in the Viking Age. The connection between type-sites and processes is explained in more detail in Chapter 2. The following table sets out this connection in brief:

TABLE 3.10 *The connection between type-sites and historical processes.*

TYPE OF SITE	PRINCIPAL TESTIFIED HISTORICAL PROCESS
Urban settlement sites, harbours	Long-distance trade
Urban settlement sites, harbours	Urban development
Mass-production sites: quarries, workshops	Large-scale production
Fortification structures: a) fortified boundaries, b) fortified cities, c) forts	Engineering and strategic use of landscape
Assembly sites: things	Social and parliamentary formation
Burial sites	Memorial landscape
Sites of governance	State formation
Religious monuments	Religious practices and beliefs
Overseas settlement sites	Cross-cultural communication
Overseas settlement sites	Overseas settlement

The two dimensions of testified processes and represented types as qualities of Viking Age sites are used as parameters for the selection of archaeological sites and, eventually, of component parts for this series. Hence, for each of the identified type-sites as well as for each of the significant processes at least one component part needs to be identified. Thus it can be ensured that a minimum of sites for illustrating and testifying to the transition to early Christian states in the Viking Age can be combined in this serial nomination which would then meet the requirements for integrity.

Type-sites other than the ones defined for this series have also been examined by the advisory board with respect to

their relevance for the illustration of the transition to Medieval states and societies. Of the type-sites not considered in this nomination, farmsteads and hamlets in particular are among the most frequent archaeological sites from the Viking Age. While certainly important for the overall knowledge of the Viking Age, the significance of farming sites in general, and notably of single examples, is rather limited relative to the theme of this nomination. Furthermore, larger farmsteads with hall buildings are often attributed to noble owners and can therefore also be assigned to the type of seats of governance. The site of Borre in this series would then be an example of this. In general, the integrity of many scientifically outstanding examples, like the hall building of Borg in Lofoten or the Vorbasse hamlet in Denmark, is very limited due to extensive excavation. Others often remain undetected or are of limited value due to insufficient scientific data. The rural settlement in L'Anse aux Meadows in Canada is a graphic example of the conflict between the preservation of small archaeological sites and their examination in order to gain information which becomes especially important in a World Heritage nomination. It therefore seems reasonable to limit the range of type-sites for this nomination to those defined above. It is, however, conceivable that rural sites could be added at a later stage in order to enhance the integrity of the series, especially with examples in the area of interaction (see the selection of sites for overseas settlements).

Urban settlement sites

Unlike many of the urban settlements in the larger area of interaction, the urban settlements of the core region of Scandinavia did not develop from for example earlier Roman towns (Clarke & Ambrosiani 1993: 46). Instead, they are particularly closely linked to seafaring, long-distance trade and the mass production of diverse wares. As such, they represent a new development in the core region, and as centres of interaction the urban settlements became vital areas for the exchange of goods and ideas which pushed forward both a transformation of religious practice and rules of governance. Consequently, the urban settlements were essential driving forces in the gradual transition towards early states. The most well-known Viking Age urban settlements in the core region are: Birka, Ribe, Kaupang and Hedeby. In the Late Viking Age other urban settlements appeared in Scandinavia that were based rather on bishoprics, due to the establishment of a Christian infrastructure, for example Roskilde, Lund, Sigtuna, Oslo and Trondheim.

In Northern Europe, urban settlements developed in the Early Middle Ages in England and in the Frankish, Frisian and Slavic areas as trading settlements (emporia) comparable to those in Scandinavia, for example Dublin, York, Staraja Ladoga, Dorestad and London. These sites can, however, at best be partially or temporarily associated with Scandinavians or Viking activities, while their connection with local groups like Slavs, Irish or Anglo-Saxons is at least as strong. They are therefore not taken into consideration as potential representatives for Viking Age urban settlements.

Birka (present-day Sweden): As noted above, Birka is currently listed on the World Heritage List as site no. 555 *Birka and Hovgården* and is owned and preserved by the Swedish state. In the Viking Age, the urban settlement of Birka was situated on a small island in Mälaren, at the time a fjord connected to the Baltic Sea. Birka's research history stretches over more than a century and the site has yielded invaluable insights relevant to the study of early urbanisation. The excavations have revealed that Birka was laid out in the second half of the 8th century AD as a year-round urban settlement. The settlement consisted of well-structured plots and streets protected by the town walls. A hillfort is located in close proximity to the urban settlement and there are traces of wooden poles in the harbour area indicating that there was a defensive barrier protecting the urban settlement from attack. Hovgården, located on the neighbouring island, is believed to be the royal residence. As noted in 2.b.2, Birka is mentioned in *Vita Anscarii* and was exposed to Christianity through Archbishop Ansgar as early as the early 9th century AD.

Ribe (present-day Denmark): Through archaeological excavations, it has been established that the settlement was divided into plots, each of which was marked out by clearly-defined ditches. The buildings are laid out close to each other and surrounded by a town wall. The archaeological remains also indicate that the structure of the settlement was altered several times, whereas the trading and production activities continued to be confined to the harbour area throughout the period. There are extensive traces of craft production and trade from the mid 8th century AD well into the Medieval period. Ribe has been particularly important for the study of crafts and trade in the Viking Age and, together with Birka, is a central point of reference for the study of early urbanisation. Ribe is also mentioned in *Vita Anscarii*. Today, however, the urban settlement of Viking Age Ribe is situated underneath the modern town.

Kaupang (present-day Norway): Kaupang was a trading centre which, from the early 8th century AD, also displayed

urban features such as plot divisions within the settlement. Archaeological excavations of the settlement, as well as the burial grounds around it, have been conducted (Blindheim 1972; Skre 2007a). At the settlement site, there are traces of craft production similar to the other urban settlements in Scandinavia at the time. The scientific value of the site is defined by its contribution to settlement studies and the study of Viking Age trading networks of Northern Europe. Recently, geophysical surveys have contributed to a better understanding of the layout of the settlement. Kaupang is most likely mentioned as Skiringssal in Ottar's late 9th century AD account and, based on the Frankish Annals from AD 808 and 813, the establishment of Kaupang has been seen in relation to the Danish King Godfred. Today, the traces of the Viking Age settlement are located under pasture land and the modern settlement. The area is protected by the Norwegian Heritage Act.

Hedeby (present-day Germany): Hedeby developed in the late 8th century AD. Hedeby was a large and well-structured urban settlement with defined streets and plots, a harbour, extensive burial grounds and eventually also a semi-circular town wall protecting the entire urban settlement. There are extensive remains associated with craft production and long-distance import of mass-produced goods such as quernstones. Geophysical surveys have revealed an extensive settlement much larger than the area currently excavated. The defence structure of Danevirke is connected to the town wall and thereby highlights the strategic position of Hedeby at the root of Jutland and along its route of communication, Hærvejen (literally the Army Road), which cuts across the peninsula south towards the European Continent. Furthermore, Hedeby's location by the southwestern part of the Baltic Sea and only a short distance from the North Sea's southeastern ports made it a truly interregional nodal point for trade and long-distance transport of both people and goods. The harbour area was extensive and used for the transhipment of goods. The urban settlement's many functions have been documented through the still-visible structures in the landscape as well as through archaeological excavations, which have confirmed craft production, and written sources, which indicate the sale of slaves, a conclusion which is archaeologically supported by the discovery of chains. The extensive urban activities of production and consumption inside the town wall clearly distinguish the settlement from its surrounding area. This is further supported by the presence of foreign objects bearing witness to the city as an arena for multicultural meetings. Hedeby is mentioned in the 9th century AD sources of the Frankish and Ottonian Annals, *Vita Anscarii* and *Ottar's Journey*.

Comparative conclusions on urban settlement sites

The choice of Hedeby as the urban settlement site of this serial nomination is based on the site's authenticity and good state of preservation. The urban settlement of Hedeby is a readable structure in today's landscape and scientific research has provided information about the strategic use of the landscape in the Viking Age. Not only was Hedeby a nodal point from a military point of view, it was particularly strategically located with regard to the trading and political networks of the Viking Age elite. It was also an important centre for the production of craft goods. Hedeby differs from other urban or trading centres of the Viking period due to its connection with Danevirke. As opposed to Kaupang, Ribe and Aarhus, the visibility and integrity at Hedeby is not compromised by modern urban development. The various components of a Viking town and its layout, such as its town wall, harbour, craft and housing areas, as well as the burial grounds, clearly demonstrate urban development, as seen at Birka in Sweden or, to lesser extent, Kaupang in Norway. Hedeby is therefore the urban settlement which best displays the social, economic, political and religious structures in a complex and concentrated manner. The remains of Hedeby are distinctly visible even today and in extremely good condition. In this series, ***Hedeby*** *is chosen as an example of urban settlement sites and as a testimony to the urban development and long-distance trade of the Viking Age. It also shows particular evidence for large-scale production and cross-cultural communication.*

Mass-production sites

During the Viking Age, resource extraction in the outlying regions of Scandinavia increased considerably and large-scale exploitation of resources began to take shape. This development proceeded in parallel with new shipbuilding techniques and became both the motor and the fuel for increased trade. The maritime culture was a necessary means for Scandinavian export of mass-produced goods and raw materials and the long-distance transport of mass products became an important factor in the development of the urban settlements.

Mass production is characterised by the effective manufacturing of products in a volume and extent which exceeds that of local consumption. The Scandinavian-produced goods which were traded in the Viking Age were furs, iron, stone products, ropes of walrus hide and most probably also people (Brink 2012). Craft goods were produced on a large scale in emporia like Birka and Hedeby, leaving an abundant

archaeological record. Most products have not left behind production localities as clear evidence for the activities in the same way that stone quarries have. However, there are a number of known stone quarry sites dating from the Viking Age/Medieval period, notably from Norway; these include for instance the quernstone quarries in Saltdal and Vågå, the soapstone quarries Piggåsen and Solerud, as well as the whetstone quarry at Eidsborg.

Production also increased in other areas of Medieval Northern Europe, although this often left little or no trace, for example the production of woollen textiles in Frisia. Mass extraction of natural resources, and even quernstones, is known from areas like the Rhineland, from where products were traded as far away as Scandinavia. These sites are however not Norse production sites and are therefore not considered as possible component parts of this nomination.

Stone Industry

Quarrying in **Hyllestad** started in the 8th century on a scale designed to meet local needs. Towards the end of the Viking Age, production was taken to industrial levels. Quarrying technology and logistics developed in the Viking period were applied in the production of subsequent centuries. The change from small- to large-scale exploitation of a raw material bears witness to the refinement of logistical organisation and economic growth of the Viking Age. The quernstones were distributed in wide-ranging trade networks and have been found in early urban centres like Hedeby and Aarhus. The coastal location of the Hyllestad quarries demonstrates the significance of maritime communication so essential to the Viking culture. No other site involving any type of large-scale bulk production (soapstone, whetstone, iron, and hunting) has the extent and the authenticity of the Hyllestad quarries. Only in Hyllestad is the maritime connection evident, a feature that links the sites in this serial nomination.

There are around 14 sites with quernstone quarries in Norway. In addition to the Hyllestad quarries, the largest ones are in Selbu, Brønnøy, Vågå and Saltdal.

Saltdal, Norway: Apart from Hyllestad, only the Saltdal quarries in the county of Nordland date back to the Viking Age. About 15 large and a few small quarries have so far been identified here. The quarries are mentioned in written sources from 1432, but production goes further back in time. Limited archaeological investigations date the extraction of quernstones to c. AD 1000. Production in the Saltdal quarries was conducted on a much smaller scale than at Hyllestad and the trade networks and distribution of the stones were not as far-reaching.

Quernstone quarries are also located in Sweden, where the two largest and best-known quarry sites are located in Lugnås, southwest of Stockholm, and in Malung, northwest of Stockholm; the latter possibly dates from the Viking Age. The Lugnås quarries are considered to date from the Early Middle Ages and the production continued well into recent times.

Malung, Sweden: Remains from the quarries in Malung indicate large-scale production and extraction is considered to have begun just before AD 800. The products were, however, not as widely traded as those from Hyllestad. Their distribution was concentrated to the southeastern parts of Sweden – where the quarry site is also located.

More than 100 soapstone quarries, with production of soapstone vessels, have been documented in Norway to date. These are found in all parts of the country and several of them are considered to date from the Viking Age. Soapstone vessels from Norway were distributed in large quantities all over Scandinavia during the Viking Age. However, provenance studies of this material have to date only occasionally been conducted, making it difficult to find the quarries where the vessels were produced. A couple of examples of soapstone quarries possibly dating from the Viking period are highlighted here:

Piggåsen in Akershus County in Norway is one of the quarry sites where large-scale production of vessels took place – and where production is considered to date from the Viking period. The quarry site covers an area of c. 200 x 50 m, where quarries – both open and underground – and spoil heaps are so densely spaced that they have resulted in major changes to the topography. Despite large-scale production, the distribution pattern of the vessels is unknown.

Solerud in Østfold County in Norway constitutes another important production site for soapstone vessels and is also considered to date from the Viking period. However, with no archaeological investigations at the site, precise dating is difficult. The quarries stretches over an area of about 1 km and soapstone vessels were produced on a large scale. Here too, the distribution of the products remains unknown. Extraction of soapstone at Solerud continued well into recent times and ended around 1900.

Whetstones constitute one of the most important tools of the Viking Age and good quality examples were a valuable export item from Norway throughout the Viking period.

Eidsborg in Telemark County in Norway represents the largest and best-known production site for whetstones from the Viking Age and its products were widely distributed. Production started in the Early Viking Age, as early as the 700s, and was followed by an extensive and widespread distribution throughout the Viking period. Eidsborg stones have so far been identified in the Viking Age towns of Kaupang and Hedeby. Whetstone production in Eidsborg continued over the centuries until the 1950s. As a consequence of this, remains from Viking Age production have been removed by this later activity.

Iron extraction

By the end of the Viking period, an intensification of iron extraction from bog ore can be documented in Norway. Iron was needed for all kinds of tools and weapons and therefore represented a very valuable raw material and was produced on a large scale. The iron was most likely widely distributed and traded, but to date these distribution and trade networks from the Viking Age largely remain unknown. Iron extraction sites are found across large parts of Southern Norway, such as in the counties of Telemark, Sør-Trøndelag, Hedmark and Oppland. The archaeological remains from this large-scale production, for example charcoal pits and slag heaps, are not as visible and clearly comprehensible as the stone quarries.

Hunting and trapping systems

Hunting was important for the acquisition of furs and antler and from the end of the Viking Age large trapping systems, consisting of fences and pitfalls, came into use. These were intended to catch both reindeer and elk, and also carnivores. The pitfalls are apparent as circular or oval depressions in the ground, often surrounded by a low earthen bank. Their size normally ranges from 2 to 5 m in diameter, with a depth of up to 1.5 m. Some of the trapping systems are very large – consisting of several hundred individual pitfalls –and they were often arranged in rows. In Dovre, in the county of Oppland, Norway, more than 500 pitfalls have been documented within an area of 30 km^2, several of them dating from the Viking period. In the county of Finmark, Norway, pitfalls constitute the most numerous type of cultural monument. Some of these may also date from the Viking Age, but to date the period between AD 1200 and 1600 is considered to represent their most intensive period of use. Due to dense vegetation, the trapping systems are in some areas difficult to find and distinguish from the surrounding landscape.

Comparative conclusions on sites of mass production

In the Late Viking Age, production of a variety of items reached an industrial level. Remains are particularly abundant from the production of craft items: iron from bog ore, quernstones, whetstones and soapstone vessels as well as fur and antler from hunting.

Soapstone quarries have to date received little attention in the research, making it difficult to date the quarries and to trace their products and possible trade networks. In some quarries, remains from the Viking Age quarrying have been more or less removed by more recent extraction. The latter is also the case for the famous whetstone quarries in Eidsborg in Telemark. No iron-extraction site or reindeer-trapping system has the extent of the Hyllestad quarries and these do not convey the industrial character of the activity, its products and the method of production as clearly. At Hyllestad, failed products lie scattered around and the numerous small quarries are very visible, as are the huge heaps of waste stone.

*No production sites from any of these **other** types of industrial production have either the scale or the authenticity of the Hyllestad quarries or the maritime connection evident in the area. **The Hyllestad quernstone quarries** were therefore chosen as examples of mass-production sites to explain large-scale production and, to a lesser degree, long-distance trade in Viking Age.*

Fortification structures

With increasing attacks and raids, both abroad and within Scandinavia, the need for protection at home in Scandinavia grew stronger in the Viking Age. As a result, it is possible to build up a chronology of the defensive and fortification structures in Scandinavia. A number of fortification structures were constructed or expanded in the 10th century, in particular town walls surrounding urban settlements such as Hedeby, Birka and Ribe.

The fortification structures indicate increased attacks from abroad, and the increase in attacks must be seen in relation to the establishment of fewer, but geographically larger, kingdoms. As such, the fortification structures illustrate the transition from a multitude of smaller chiefdoms to early states in a hands-on and concrete manner. Furthermore, it is essential to note that these fortifications did not only serve as defensive structures, they were also military nodal points which were strategically located along routes of communication. Consequently, the fortification structures can be divided into different types based on their geographic position: border embankments, urban fortification structures and ring fortresses. Each is compared separately and a comparative conclusion provided for each sub-type.

Fortification structures can be found throughout history and in virtually all regions. In Northern Europe, various fortifications were constructed outside Scandinavia both before and during the Viking Age. Along the Baltic Sea, a large number of ring forts were built by the Slavs and in England the Anglo-Saxon king Alfred the Great established a system of so-called burhs (forts or defended settlements) in defence against Viking attacks. Another Anglo-Saxon king, Offa, is said to have established a long border fortification between his kingdom of Mercia and the Welsh domain in the 8th century. All of these fortifications were built or reinforced by the indigenous population and cannot be directly attributed to Viking Age Norse, except as reactions to Viking raids. They therefore cannot be regarded as potential representatives for Viking Age fortifications and the associated processes in the context of this nomination.

Border embankments

Border embankments are large embankments which clearly divide large landscape areas and are often found in areas where there is a clear sense of tension between the governing elites.

Götaverket: In Götaland in Sweden a border embankment, Götaverket, similar to Danevirke, was constructed in the 9th century AD. Approximately 3.5 km of the earth and palisade wall remains. Götaverket can be seen in relation to the conflict between the Göter and the Svear and is therefore a physical trace of the battles between these two groups. In a similar manner as Danevirke, this border embankment uses a combination of natural barriers and manmade embankments.

Kräkingbo: A 5-6 m high and 2 km long stone wall has been identified at Kräkingbo in Gotland. The embankment cuts off a natural plateau (Stenberger 1979). Archaeological surveys have shown that the embankment was constructed during the Roman Iron Age, but its period of use also extends into the Viking Age. However, there is no secure dating of this border embankment at present.

Danevirke: In the Scandinavian core area, Danevirke was the largest border embankment. The embankment marks the Viking Age border between Scandinavia and the Continent, extending over 33 km, of which 26 km consists of clearly visible embankments. Between the different areas of the embankment either water or marshland or bogs serve as natural barriers. Danevirke was first constructed before AD 700 and significantly reinforced around AD 737-740. It continued to be extended throughout the Viking Age. After AD 983, i.e. at the time of the construction of the Trelleborg ring fortresses (3) and the building of a gigantic bridge over Ravning Enge, Danevirke was further strengthened. Since then, Danevirke has continued to serve as a border embankment – even into the mid 20th century.

Comparative conclusions on border embankments

The border embankments highlighted in this comparison indicate that they were commonly used throughout Scandinavia. The contemporary Götaverket is both smaller and less well-preserved than Danevirke. Therefore, Danevirke holds a special position due to its size, construction, extensions and reconstruction – many of which took place during the chronological time frame of the nomination. Danevirke's authenticity and integrity is scientifically well-confirmed and the fact that it is connected to the town wall of Hedeby enforces the qualities of this border embankment. Consequently, ***Danevirke*** *was chosen as an example for border defence structure in the Viking Age. It testifies to the engineering skills of the Vikings and their strategic use of landscapes and it reflects the state formation process in Northern Europe.*

Urban fortification structures

Birka: The town wall of Birka consists of a relatively low earthen embankment with palisades over the at least nine openings present in the 700 m long wall. From a defence point of view, this construction is not particularly suitable. Nonetheless, the wall can still be said to have some form of defensive function, but is perhaps better understood as a jurisdictional border for the trading taking place in the town. At Birka there is, however, also a hillfort with an embankment and palisade with a documented military presence. It is this hillfort complex that has served as the fortification structure.

Hedeby: The Semi-circular Wall surrounding Hedeby was heavily reinforced during the 10th century when it was integrated into Danevirke. The wall surrounding the town was so high that it also served as a fortification structure along with the hillfort.

Danish urban settlement: Harbour barriers and town walls are also known from other urban Viking Age centres such as Aarhus, Roskilde and Ribe.

Comparative conclusions on urban fortification structures

The Semi-circular Wall surrounding Hedeby is higher, wider and more robust than the town walls of other urban centres in Scandinavia. Hedeby has the largest and most complex urban fortification structures of the Viking Age urban settlements in

*Scandinavia. **Hedeby** was first and foremost selected as an example for emporia but complements the sites chosen as examples for fortification structures.*

Ring fortresses

Gråborg: At Gråborg, on the Swedish island of Öland, there is a 4-6 m high and 210 m diameter stone ring fortress. It was first built during the 6th century AD, but was extended and reached its current size in the 12th century.

Eketorp: Also located on Öland is the Eketorp fortress. Eketorp is also a stone ring fortress. It was built in the 4th century AD and has a diameter of 80 m. By about AD 700, Ektorp ring fortress had gone out of use and was not reconstructed and used again until the 13th century.

The Trelleborg-type fortresses: In Southern Scandinavia, there are four ring fortresses of the Trelleborg-type: Trelleborg, Aggersborg, Fyrkat and Nonnebakken (on Funen). As there are no secure examples of similar structures of the exact same type, it is unlikely to be possible to determine with certainty the source of inspiration for their construction. The circular fortress type probably developed in Denmark, inspired by a number of slightly earlier ring fortresses in the Slav area or along the coast of Flanders or Northern France. Two ring fortresses in Scania – Trelleborg and Borgeby (and perhaps also a third, Foteviken) – are related to the Danish Trelleborg-type fortresses, but do not belong to the same type.

The Trelleborg-type fortresses cannot be viewed in isolation. They must be put into an historical context relating to Harald Bluetooth's unification of the realm and also including the burial monuments and associated palisade area at Jelling and the defensive structure Kovirke at Danevirke. Harald Bluetooth, who is traditionally seen as being responsible for the construction of the Trelleborg-type fortresses, buried his parents at Jelling, where he raised a rune stone in their honour. He also erected a rune stone in honour of his own achievements in unifying the realm and in the conversion of the population to Christianity.

The strengthening of the country's defences and the unification of the realm are represented by the construction of great monumental building works. Further to the burial mounds at Jelling, with their associated palisade area, these also include the Trelleborg-type fortresses, the defensive structure of Kovirke at Danevirke, the bridge at Ravning Enge and the fortification of a number of, at that time, Danish towns, including Hedeby, Ribe and Aarhus. These building works are also ascribed important significance in the subsequent retention of power. On the basis of Kovirke's dead straight course and ^{14}C dates of c. AD 980, this defensive structure is seen as having been constructed at the same time, and possibly by the same builder, as the Trelleborg-type fortresses (Dobat 2013).

Comparative conclusions on ring fortresses

*Three of the ring fortresses, Aggersborg, Fyrkat and Trelleborg, are nominated. These three fortresses have in unison provided all the available archaeological information on the structures as a whole and the three chosen sites are in a much better state of preservation than Nonnebakken. Unlike the ramparts and fortresses of Borgeby in Sweden, the Danish ring forts are unique in their similar and geometric layout. As such, the three nominated ring fortresses provide extensive data on a relatively short period of the Late Viking Age. The ring fortresses of Gotland and Öland share some of the same functions, but their dating indicates that they were used either during the earlier stages of the Viking Age or were not used at all during the time period covered by the current nomination. The Trelleborg fortresses are monumental and military manifestations of royal power during the reign of King Harald Bluetooth. Consequently, they are closely linked to the state formation process in 10th century Denmark and Norway also testified to by the Jelling complex (2) and Danevirke (4). The longhouses found in the fortresses – the so-called Trelleborg house-type – were associated with locations which played a central role in Viking Age aristocratic circles. Such elite estates developed their own building styles. **The Trelleborg fortresses** were therefore selected as examples of fortresses in the Viking Age and as mirrors of the engineering skills of the Vikings and their strategic use of landscapes. They are also strong testimonies to the process of state formation.*

Assembly sites

Things or assemblies, where people assembled outdoors, took place long before the Viking Age and probably represent a Germanic tradition. Indeed, the word þing is old and exists in all Germanic languages (for example, Old Saxon thing, Lombardic thingx and maybe also Gothic þeihs) and seems likely to date from the beginning of the 1st millennium AD (Semple & Sanmark 2012: 524).

At the assembly, freemen gathered to hear the law recited and to settle conflicts. The places which we know functioned as assembly sites clearly indicate that the assemblies were open, communal affairs. Until the end of the Viking Age, there were no ostentatious constructions associated

with assembly sites. Furthermore, the places where people gathered were chosen because they were able to support the notions of community – through references to either past events, traditions or monuments. Finally, the assembly sites were often located close to routes of communication, but outside the properties of the elite. Nonetheless, local variations in the choice of location cannot be underestimated when comparing assembly sites.

There is a number of place names across Northern Europe that includes the concept of "thing": Tynwald Hill, Thingsva, Tinwald, Dingwall, Yeavering, Tingwall, Lunnasting, Law Ting Holm, Sands-ting, Thinngartsaigh, Dingieshowe, and Thingmote. This shows that collective decisions were based on laws which were widely known in the areas where the Norse settled (Semple & Sandmark 2013: 534).

These sites, although some are quite comparable with the things described below, are not considered as possible component parts of this nomination under the historical process "assembly sites" as they lie outside the core area of the nomination. They are, however, described as part of the historical process "overseas settlement".

Gulating: According to Ari fróði Þorgilsson[1] the Althing at Þingvellir was based on the the Law of Gulating and was most likely recited when the Althing at Þingvellir was inaugurated in AD 930. The Gulating itself was located at Gulen in the modern county of Sogn og Fjordane in Western Norway. There is no information about the assembly's exact location. Consequently, the exact location of Gulating is uncertain.

Frostating: Frostating is the name of the legal area which applied to the Trøndelag region in Norway and covered the then eight counties of the region. The thing was held at the farm and church at Logtun in the village of Frosta in the modern county of Northern Trøndelag. The site includes a mound commonly referred to as the thing mound and tradition has it that this was the location of the assembly. At present, no archaeological remains have been discovered at the presumed assembly site.

Borgarting: The emissary thing of Borgarting around the area known as Viken, covering the coastal areas from Göta älv to Rygjabit in Norway, dates back to the 12th century. Tradition has it that both the assembly and the town were founded by St Olaf in AD 1016. Borg, where the Borgarting assembly was first held, is today severely reduced due to the urban sprawl of the modern town of Sarpsborg. As a result, there are few traces of the town wall and even fewer remains associated with the Borgar assembly.

Gamla Uppsala: The best-known supra-regional assembly in Sweden is that of Gamla Uppsala. The easternmost of the large mounds at Gamla Uppsala is known as Dommarhögen (literally Mound of Judgement), with Tingslätten (literally Thing Plain) just south of the mound. Consequently, the place names indicate the area's juridical use. However, it was only towards the end of the 13th century that the election of kings is said to have taken place there (Gahrn 1993: 58-59). With the exception of the place name of Dommarhögen there are no traces of the assemblies.

Assembly sites in Denmark: In Denmark there were 13 emissary things known as "land things" during the Medieval period. There are also a number of "thing mounds" known under the name of "Tinghøj", and indicating that assemblies where held there (Knudsen 1917: 353-354, 357). As in Sweden and Norway, there are few physical traces of the Danish assembly sites and the Tinghøj is often referred to without further explanation (Knudsen 1917: 351). The fact that a mound is used as a Tinghøj (thing mound) can also indicate that the assembly was moved to the mound, and it is therefore difficult to date the assemblies. Around AD 1200, the land things of Viborg, Lund and Ringsted are presumed to have been the major assemblies responsible for adoption of new laws and the election of kings.

Þingvellir: The history of Þingvellir dates back to AD 930 and is one of the few things for which the location and codes of law are well known. The site includes the remains of the booths used by the attendees as well as various structures attributed to the assembly proceedings. The assembly at Þingvellir, the Althing, took place once a year and representatives from all parts of the country took part. While local assemblies also took place two to four times a year in Iceland, the Althing was a national assembly, making laws and other major decisions for the whole country.

Comparative conclusions on assembly sites

By comparing the Nordic emissary and land things and their assembly sites with Þingvellir, it becomes evident that none of the other places has the same authentic remains which make it possible to identify their exact location. While Þingvellir has the traces of the thing-men's booths, there are no documented structures at any of the other known assembly sites in the Nordic Countries.

[1] In Íslendingabók, the Book of Icelanders.

Þingvellir is thereby the assembly site where language, laws and tradition are most closely matched by concrete material remains firmly dated to the Viking Age. Both a mound and a church have been constructed at Þingvellir. Together with the traces of the booths, the church and the mound create a unity which enables the place to be understood as one of continuity and tradition. Finally, the geographical position of Þingvellir stands out among the other known assembly sites in Scandinavia. With regard to authenticity and integrity, the qualities of Þingvellir are unmatched within the core region of Scandinavia. Þingvellir is both historically and archaeologically the largest and most significant site of them all. Important thing sites mentioned in the old Icelandic/Norse literature are Gulating and Frostating in Norway. The exact location of these sites is, however, uncertain. Research conducted into the Þingvellir ruins suggests that, in addition to the visible remains, archaeological remains beneath the surface can shed new light on the site and its evolution. Nowhere in Iceland or elsewhere in the Viking world have such extensive remains been found of a general assembly for an entire country dating back to the Viking Age. Þingvellir was therefore chosen as an example for assembly sites and as testimony of social and parliamentary formation in the Viking Age. The site is also a reference for the state formation process and religious practices and beliefs in the Viking Age.

Burial sites

Power and wealth is often expressed through grand funerary rites and thousands of burial sites are known from the Viking Age. However, among the diverse burial traditions, ship mounds represent an outstanding custom. In this, the ship, as the most significant instrument of the Viking Age, also played a crucial symbolic role. Burying a ship in earth can be considered a ritual and symbolic action. Furthermore, the scale of these monuments indicate that the owners and their lineage held strong positions in society, being able to afford the cost of constructing mounds and the rich grave goods within them. Finally, the geographical locations of the mounds reflect the self-perception of the upper social class. It is obvious that the petty kings' transformation of the landscape was deliberately done to commemorate the past as memories for the future. It seems therefore reasonable to confine the selection of comparable burial sites to ship burials in large barrows.

Ship burials in Northern Europe are not exclusively a Viking Age tradition. This custom is actually seen earlier in Scandinavia, with examples in the burial fields of Vendel and Valsgärde in Sweden drawing attention to the fact that monumental Viking Age ship burials constituted the culmination of a long tradition. In the British Isles, artefacts associated with the prominent early 7th century Anglo-Saxon ship burial at Sutton Hoo clearly reveal contacts with Scandinavia. However, very few ship burials have been excavated in the British Isles that can be connected with the Vikings. Also in Eastern Europe, only few ship burials of probable Scandinavian origin have been discovered, for example in Salme in Estonia. The most prominent of these are, however, neither of Scandinavian origin (Sutton Hoo) nor do they date from the Viking Age (Vendel) and, consequently, they are not considered in this comparison.

Rolvsøy and Tuneskipet from Haugen: In 1751, the excavation of a mound containing a ship was undertaken by unauthorised individuals at Rolvsøy in Østfold in Norway. With the exception of a brief statement about the fact that the mound was manmade, documentation is sparse (Søren Testrup, cited in Shetelig 1917a: 217).

At the neighbouring farm of Haugen, the Tune ship was discovered in a large mound in 1867. The mound was estimated to have been 4 m high and c. 80 m in diameter (Rygh 1867; Schetelig 1917a: 218, 1917b). The length of the ship is estimated to have been 18-19 m (Paasche 2010: 163) and the mound contained the remains of an adult who, based on the remains of weapons in the grave goods, has been interpreted as a man (Paasche 2010: 26-27). The funeral is dendrochronologically dated to AD 910 based on wood from the burial chamber (Bonde 1994: 140; Paasche 2010: 182). Little remains today of the monument that once housed the Tune ship. However, the existence of a ship burial at the neighbouring farm of Rostad, discovered in 1751, and a rich chamber grave on the same farm, excavated in 1864, shows that the location has much in common with the ship burials of Vestfold and Karmøy.

Storhaug at Karmøy: Storhaug is situated on the farm of Gunnarshaug in Norway, approximately 160 m from the sea, and occupies a very dominant position on the edge of Salhusstraumen, the narrowest part of the sound Karmsundet. The mound was once known as the largest mound at Karmøy, but today only traces of it remain. The ship is thought to have been relatively long and slender and has been dendrochronologically dated to AD 770 (Bonde & Stylegar 2009). The burial itself has also been dated dendrochronologically to May/June AD 779.

Grønnhaug: Grønnhaug is situated at the edge of the large burial ground at Reheia or Boldheia at Karmøy in

Norway, a short distance from Storhaug. At the time of its excavation in 1902, the mound was 30 m in diameter, 4 m high and had a clearly visible row of stones around its circumference (Schetelig 1902; Opedal 1998). Inside a core cairn, a 15 m long ship of oak was discovered, in which a man had been buried. Dendrochronological analysis has established that the Grønnhaug mound is likely to have been constructed in AD 790-795. Grønnhaug is still preserved as a monument. Its visual integrity has, however, been compromised by the construction of a modern road.

Ladby: At Ladby, close to Kerteminde fjord, at the northern tip of Funen in Denmark, there is another large mound. The Ladby ship was discovered in 1934 and excavations were carried out during the following three years (Sørensen 2001). The mound was 29-30 m in diameter, but had been reduced to 2 m in height due to ploughing. The deceased was a man whose grave goods included a number of animals and weapons (Sørensen 2001: 68-104). Based on artefact typologies, the grave has been dated to AD 900-950 (Sørensen 2001: 57). One of the remarkable features of this ship is that it has not been removed from its mound. As the only ship burial known in Denmark, an on-site museum was constructed. The rivets remain in situ and the museum was built over the site.

The Hedeby ship burial: In 1908, an unusual grave structure was excavated at Hedeby. It consisted of a subterranean grave chamber with three contemporaneous burials and a shallow pit alongside containing the remains of three horses. All of this was covered by a burial mound, which also contained a longship, placed on top of the grave chamber (Wamers 1995). By virtue of the rich grave goods in the chamber, the burial can be dated to c. AD 850 and the longship, accordingly, to between AD 825 and 850. Egon Wamers has argued that the person buried in this grave is the Danish king Harald Klak (Wamers 1995: 151). The ship from the grave at Hedeby was very poorly preserved. Hardly any traces remain of the mound today.

The Vestfold ship burials: The Oseberg mound was built in AD 834. Together with a ship in an excellent state of preservation, the grave inventory contained numerous artefacts of textile and wood and has provided crucial information on Viking crafts and styles; the finds have also led to a more detailed understanding of material science. The Oseberg mound was not investigated completely during the excavations of 1904, as the ship was unearthed by digging a shaft into the mound.

The Borre complex has been linked to early kingdoms in Vestfold from AD 600-1000. Nine large mounds and three large cairns demonstrate that the monumentality was built up over centuries. The Borre burial ground comprises a total of 51 burials. The barrows vary in size and shape but the landscape is dominated by seven large mounds ranging up to 6 m in height and 45 m in diameter. The large mounds probably date from between AD 600 and 950. Mound 1 was excavated in 1852, revealing rivets of a longship and a rich selection of grave goods. In addition, the remains of two large halls, a harbour and a large longhouse have been identified.

The Gokstad mound is located on the floor of a defined space in the landscape, where visibility of the mound is an essential quality. Inside the well-preserved ship there were three small boats which had been dismantled and put inside the stern part along with a sledge. The mound was built sometime in the period AD 895-903. In the excavation in 1880, a trench was dug in order to unearth the ship and the mound still holds much scientific information of high value (Bill 2013).

While the Oseberg and Gokstad mounds have provided great insights into the fine carpentry traditions of the Vikings, the elite and their symbolic universe, it is in particular the extremely good preservation of the ships which stands out. Their level of preservation and the reconstructions that have been produced have enabled us to understand fully how efficient these vessels were.

Comparative conclusion on burial sites

In this comparative analysis, ship burials are identified as a type of investment which shows how the elite presented themselves through rituals and the construction of monuments. Such large constructions reflected the ideological beliefs that underlay their values, norms and traditions.

The excavation of the Tune ship in 1867 contributed to the knowledge of Viking ship construction, but the excavation was conducted according to a rapid and rather rough method, at the expense of the archaeological remains. The post-excavation period was characterised by neglect and neither the archaeological finds nor places with comparable burials were given much attention (Shetelig 1917b). New information relating to the ship construction has not been produced until recently (Paasche 2010). The location of the Tune ship is not evident as a monument in the landscape today.

Storhaug at Karmøy in Rogaland now stands as a residual remnant and not as a monument in the landscape.

The present situation at the site of Grønnhaug is characterised by intrusive infrastructure close to the mound which reduces the value and integrity of the monument.

The Ladby ship is displayed in situ, and has much in common with Gokstad, but preservation conditions are not nearly as good. The Ladby ship is open to the public, but the top of the mound construction has been permanently removed. Both the value and integrity are reduced as a result of the conservation strategy.

The integrity of the Hedeby ship has been destroyed as the entire monument has been excavated, even though the value of the findings is considerable.

Oseberg and Gokstad surpass all other ship burial findings with regard to scientific outcome. These two sites have produced invaluable information about the material culture of the Viking Age; the design of artefacts and analyses of ornaments and style are related to Oseberg and Gokstad. The understanding of maritime culture and ritual behaviour has also been advanced by these ships found in the mounds, making a symbolic journey into the underworld. The two mounds have not been completely investigated and they still hold data of great scientific value. The monuments appear today as being visible and well-maintained and their integrity is intact. The Gokstad and Borre sites have a landscape setting that conveys the connection between ancient settlement structures, burial grounds and the sea. The location of all three sites in a coastal landscape alongside one of the main sailing routes reflects the maritime focus of the period. In addition, Borre testifies to a series of other burial rites in the Viking Age and to the use of monumental pagan burials at early seats of governance. Consequently, ***Oseberg****,* ***Gokstad*** *and* ***Borre*** *form a unique memorial landscape and are therefore chosen to comprise the component part the* ***Vestfold ship burials*** *as examples of burial sites and in order to explain the construction and role of memorial landscapes in the Viking Age. They are also significant testimonies to the state formation process in Northern Europe.*

Seats of governance with religious monuments

A clear typology of sites of governance of the Viking Age is difficult as archaeological evidence and historical records are often elusive. However, there are sites in Scandinavia which have revealed – and continue to reveal – new information on how royal power was manifested at central sites. Some features have been identified as being dominant indicators of a royal elite, especially in their collective appearance. One indicator is present, in the form of religious monuments associated with prestige, status and attractiveness. Pagan religion, and later Christian faith, was closely linked to political power. As the monarchy developed during the period from the 8th to the 11th century, these monuments changed from pagan structures such as burial mounds, ship settings and rune stones to sculptures and buildings with increasingly Christian characteristics. Rune stones were given Christian symbolism and inscriptions and, naturally, the first churches emerged. In the following section, religious monuments are therefore analysed as significant features of seats of governance.

Hall buildings are commonly conceptualised as the guildhalls of the Viking elite and as such they can be understood as chieftains' seats of governance. A number of hall buildings from the Viking Age, or its beginning in the 8th century AD, have been discovered in Scandinavia: Denmark had such buildings on Zealand, specifically at Tissø (Jørgensen 2002) and Gammel Lejre (Christensen 1997) and at Jelling. In Sweden, Slöinge (Lundqvist 1996), Uppåkra (Larsson & Hårdh 2006), Järrestad (Söderberg 2003), Fornsigtuna (Hedman 1991), Lunda (Andersson et al. 2004), Huseby (Ekman 2000) and Gamla Uppsala (Duczko 1993, 1996; Nordahl 1996) are places where firm evidence clearly points to the aristocracy (Kyhlberg 1995; Callmer 1997, 2001). Communities in Norway have also been examined, including Borg in Lofoten (Munch et al. 2003) and the hall on the farm at Huseby in Tjølling in Vestfold (Skre 2007: 231-242) as well as the halls discovered at Borre (Trinks et al. 2007; Gansum 2008).

As a means of comparing the most complex Scandinavian seats of governance, only sites that can document a number of qualities will be compared with the nominated sites. These sites should, at best, have historically documented significance as the seat of kings, archaeological evidence for the presence of an elite, especially hall buildings, and display visible monuments of religious significance.

With such selection criteria as a point of departure for comparisons it is possible to reduce the number of comparable sites inside Scandinavia considerably, to only include Gamla Uppsala, Lejre, Borg, Borre and Jelling.

As with other type-sites in this serial nomination, seats of governance can also be found in other regions and periods in Northern Europe. It is however meaningless relative to the selection of component parts for this nomination to compare Viking Age royal centres in Scandinavia with Slavic Starigard and Mecklenburg in Germany or with Anglo-Saxon Yeavering in the British Isles.

Gamla Uppsala: Gamla Uppsala belongs to an exclusive group of multipurpose central places from the Late Iron

Age (Hedeager 2002). These multipurpose central places covered official functions (law, cultic activities, trade and markets), but are also known for more specialist crafts, as they were the residence of members of the elite and religious leaders. From written sources, it is clear that Gamla Uppsala was particularly renowned for the latter.

At the beginning of the Late Iron Age, the settlement and a cobbled road flanked by posts were built. Already during the 6th and early 7th centuries AD the monumental royal mounds were constructed, but it was only in the following centuries that Gamla Uppsala rose to full strength. Until around AD 1100, Gamla Uppsala functioned as a central place and an area for the elite to display their wealth to people from all levels of society.

It is in particular the large royal mounds that shape the landscape of Gamla Uppsala today. Gamla Uppsala has been seen as the place of origin for the Ynglinga royal lineage and many of the mythical kings are said to have lived there (Lindqvist 1936). The largest of the mounds, the eastern mound (Östhögen), was excavated in 1847. The dating of the burials falls within the period of the late 5th to early 6th century AD (Lindqvist 2005). The western mound also included a burial and is dated to the late 6th – mid 7th century AD (Lindqvist 2005). In addition to these large mounds, Gamla Uppsala also has several hundred smaller burial mounds, as well as a large number of graves that are not visible above ground.

In Gamla Uppsala there are also a number of constructed earthen platforms on which hall buildings were located. It is in particular Adam of Bremen's account of Gamla Uppsala from AD 1070 that is used when this royal complex is interpreted in a religious and ritual perspective. Today, only half of the large three-aisled cathedral, built in the mid 12th century, still stands in Gamla Uppsala. The church was damaged during a fire in the 1240s. During the Medieval period, the Christian kings owned the land, and therefore it is no coincidence that archbishop's seat was located there in the mid 12th century.

Lejre: Lejre is the name of a small village some 10 km southwest of Roskilde on the island of Zealand in Denmark. This small settlement played an important role in a series of legends about the earliest times in Danish history. The Danish Medieval chroniclers Saxo Grammaticus and Sven Aggesen placed the residence of the oldest Danish royal house, known as the Scyldings, at Lejre.

The greater part of the settlement, consisting of post-built longhouses of various sizes, is situated on the hill to the west of the village. It is only to the north that a proper limit to the settlement, in the form of a robust fence, has been found. There are graves close to the settlement.

A building, 48.5 m long and 11.5 m wide (houses III and IV) seems to have been the central element of the settlement. This hall, with a floor area of more than 500 m^2, was, in principle, constructed in the same way as the houses in the Danish Viking Age fortresses (e.g. Trelleborg). It is in particular its dimensions which make the building a unique monument in early Danish history. The building was in use from the 7th to the 10th century AD (Christensen 1997: 52).

Borg in Lofoten: Borg is a settlement site situated on the Lofoten island of Vestervågøy in Norway. Excavations uncovered an 83 m long building whose material remains included imported glass, precious metal and ceramics. Consequently, the remains have parallels in Southern Scandinavia.

Houses from different periods have been identified on the elevated plot: Borg I (the chieftain's estate) and Borg II (a house from the 11th century AD) were almost fully excavated. Borg I dates back to AD 500-900 and was originally 67 m long. Around AD 700, however, the house was rebuilt and its length extended to 83 m and its width reached 9.5 m. Collectively, the rooms included all the functions needed for the running of a farm, thereby explaining the great length of the building. One of the largest rooms in the middle of the building has been defined as the hall.

A reconstruction of the final phase of Borg I has been erected close to the excavated house.

Borre: The Borre complex also contains a series of structures revealed by georadar in 2007-2013. At least three large hall buildings have been discovered in close proximity to the burial ground as well as a manmade harbour on the shore. Together, these structures clearly indicate that Borre was an early royal estate. Neither the halls nor the harbour have been surveyed using intrusive methods or excavated. As such the potential for further scientific insight is tremendous.

Jelling: Jelling is a thoroughly planned complex unambiguously indicating the Danish king's ability to build monuments to highlight and enhance the past. By employing the symbols from the past generations of warlords and kings, Harald Bluetooth positioned himself in a symbolic lineage.

The site has a stone setting in the form of a ship measuring 358 m in length. In the midst of this ship setting is the central point of the North Mound. The church and the rune stones are located in the position of the grave chamber in ship burials. The South Mound was built over the stern part of the ship between AD 963 and 970 and comprises a slightly oval mound measuring 75 x 65 m and 9 m in height. The area as a whole is surrounded by a palisade in which only one entrance has been found. Within the palisade are three identical buildings very similar to the houses in the Trelleborg fortresses. Several wooden buildings underneath the church have recently been interpreted as hall buildings rather than wooden churches. However, it is clear that the alliance with the church was important and this is demonstrated by the large rune stone and the actual church building. The large rune stone commemorates the Christianisation of Denmark by Harald, and his conquest of Norway.

Comparative conclusions on seats of governance

Gamla Uppsala is a site that displays regal buildings and emblematic and symbolic monuments. This site has the necessary values and integrity that are comparable with Jelling and Borre. Gamla Uppsala has the same functions as found at Borre in the 7th and 8th centuries AD. The functions differ compared to late 10th century Jelling; where Gamla Uppsala was a place for kings over centuries, Jelling displays a short period of momentum giving an insight into a rule of some decades. Furthermore, a large amount of archaeological research has been conducted at Gamla Uppsala and this has provided significant information on monuments and artefacts from the second half of the 1st millennium. The scientific significance of the site has greatly improved the understanding of the Viking Age in Scandinavia. Gammel Lejre in Denmark also holds a strong scientific position relative to the earlier Viking Age. However, there are few visible traces in the landscape at Gammel Lejre. The site's integrity is maintained, but its value is reduced as a result of a limited ability to experience the place as monumental.

Borg in Lofoten in Northern Norway shares much of the material culture of a chieftain's seat of this period but its integrity has been reduced by extensive archaeological excavations. Furthermore, it lacks religious monuments in the surrounding landscape which can be securely dated to the period AD 700–1100.

Borre shows an earlier phase in the striving of the petty kings to gain power. The information from written sources and the excavated mound have enabled an interdisciplinary interpretation of the site. However, the remaining mounds and buildings have not been excavated and as such Borre's integrity and value are preserved and the site has great potential for providing further information.

Jelling constitutes a thoroughly planned complex which assembles different monuments into a unique site. The site was designed with clear references to the past. The time period during which Jelling was used was short, and demonstrates the resources possessed by a king in the second half of the 10th century. By then, Harald Bluetooth was uniting a large kingdom and, in the process, he expended huge resources in order to further his aspirations of a secure power base. The two mounds, rune stones and church in Jelling were inscribed on the World Heritage List in 1994 under criterion iii. It is emphasised in the ICOMOS evaluation of 1994 that the monumental complex is beyond comparison in the region and unique in its complexity, and that there is no other monumental complex in Scandinavia of comparable symbolic value.

*In this series, **Jelling** is therefore selected as an example of a seat of governance and as being representative of the significant religious and political transformation and the state formation that took place during the Viking Age, marking both the consolidation of royal power in Denmark and the official acceptance of Christianity by King Harald Bluetooth around AD 965. **Borre** is also chosen as the site for the component part of the Vestfold ship burials because of its outstanding combination of an early seat of governance with ship burials.*

Overseas settlements

One of the defining features of 7th – 11th century Scandinavia is the movement of people. These expeditions were made possible by the new shipbuilding techniques which enabled longer journeys. Both men and women took part in this early mass movement of people and consequently it is possible to speak of migrations as well as raids. When settling in their new areas of expansion, the Scandinavians also brought their own cultural traditions with them. This is seen through the traces of the built environment where they settled, through the portable objects discovered there and indeed through the place names abroad. The following section provides an overview of the larger area of Scandinavian expansion. The overview is divided into two according to the two main routes of Viking expansion: *Vestrveg* (Western Way) and *Austrveg* (Eastern Way). Following the overview, a comparative conclusion is presented.

Settlements of Vestrveg

The most widely known Viking Age overseas settlements

are located west of the Scandinavian core region, in Northumbria in the United Kingdom, Ireland, the Faroe Islands, Iceland, Greenland and Canada. The westward migration, along the route commonly referred to as *Vestrveg*, began as early as the 9th century AD. At that time people from present-day Denmark and Norway had become familiar with the areas to the west, following nearly a century of trading and raids. There are clear indications of similar processes of assimilation at the overseas settlements in England, Ireland and parts of Scotland and on the Isle of Man, the Orkneys and Shetland. Linguistic developments, place names, archaeological finds and, not least, DNA analyses of skeletal remains reveal that Scandinavian communities interacted with native populations. Furthermore, the mixture of Irish and Western Scandinavian DNA profiles also indicates a dual process of migration to northwestern Iceland and the Faroe Islands. It is the overseas settlement of Iceland which is the best documented of these migrations.

Ireland: Scandinavians from the area round Viken settled in Ireland. At the time, Ireland was sparsely populated and comprised a series of minor kingdoms whose modes of production were largely agrarian. Furthermore, there were few urban settlements prior to the establishment of Dublin by the Vikings. The Irish Annals also note that slaves were shipped to Scandinavia and areas further east. As the Viking Age coincides with the early Christian kingdoms of Ireland, contacts between Scandinavians and the Irish were governed by conflicts over hegemony. This essentially led to the construction of several fortified structures in the 9th century Scandinavian Ireland. Written sources note that several of the Scandinavian settlements, such as Limerick, Waterford and Wexford, were fortified.

Dublin: At the time when Dublin was founded, in AD 840, the settlers from Viken were well acquainted with urban settlements and harbours from their home region, where both Kaupang and Heimdal (close to Gokstad (6.)) were flourishing. Archaeological excavations of over 200 buildings reveal that the Scandinavian urban settlement of Dublin was distinctly different from the Irish settlements of the time. The excavations have securely established that Scandinavian Dublin was an area of trade and craft production.

England: In the Anglo-Saxon area of what is now the United Kingdom, the Scandinavian settlement was confined to what was known as *Danelagen* – the Danelaw. The Danelaw was essentially the area where Danish was spoken and Norse law was practised by Scandinavian settlers. However, few new Scandinavian settlements are known to have been built as, in contrast to Ireland, England was relatively densely populated when the Vikings settled. As a result, the Scandinavian population in Northumbria assimilated relatively quickly and archaeological finds testify to a mixed Anglo-Scandinavian material culture. As in Ireland, the conflictual relations between the Scandinavian settlers and the Anglo-Saxons in England resulted in the construction of Anglo-Saxon fortified structures known as *burhs*.

York: York (Jorvik) is one of the urban settlements where Viking Age remains are prevalent from the 9th century AD. However, conflicts regarding supremacy over York grew stronger during the course of that century and already in AD 876 the large army which once attacked York was dissolved and its members were allocated plots of land in the greater Northumbrian region. Many Scandinavians adopted Christianity and syncretism is best shown by coins minted in York showing Christian and pagan Norse symbolism and by typical Christian grave slabs bearing pagan symbolism.

Isle of Man: Many sites on the island show traces from the Viking Age: The settlement site at Cronk ny Merriu is a small pre-Viking promontory fort where excavations revealed a typical Viking house inside the structure. Tynwald, with parliament hill, is the island's thing site. Large Viking Age burial mounds can be found in the north and the south of the island, where the barrows of Knock y Doonee and Balladoole are still highly visible. Here too, there is a stone ship setting. On St Patrick's Isle there are the ruins of Peel Castel, which date back to the 11th century.

Orkney Islands: The Shetlands and the Orkneys in Northern Scotland were settled by the Norse in the 9th century AD and remained under Norse rule for the next 4-500 years. The Norse appear to have taken over the farms of the previous population, the Picts, either by force or peacefully by assimilation. This is clear at sites like the one on the small island of Brough of Birsay, where a major Pictish settlement was built over by a Norse settlement, later the seat of Orkney´s greatest earl, Thorfinn the Mighty (Þorfinnur ríki Sigurðsson, d. AD 1065). The Norwegian settlement from the 9th century AD is typical with large longhouses of turf and stone. Maes Howe is a Neolithic chambered tomb with Norse runic inscriptions and carvings mainly from the 12th century. It is part of the World Heritage Site *The Heart of Neolithic Orkney*, inscribed in 1999. At Westness on Rousay, two boat burials and a farmstead with two houses, a longhouse and a barn have been excavated. Another site of Norse origin in the

Orkney Islands is Cubbie Roo´s castle in Wyre. This is a stone castle, thought to be the oldest in Scotland, and also the best preserved, linked to the Norse chieftain Kolbeinn hrúga who settled in Orkney in the middle of the 12th century AD. The castle and its builder are mentioned in Orkneyinga Saga, one of the Icelandic sagas written around AD 1200.

Shetland Islands: The first Norse settlers arrived here around AD 800, renamed the island Hjaltland, and it soon became part of the Norse kingdom of Orkney. A thing site was at Low Ting Holm, Tingwall. In nearby Scalloway remains of the temporary settlement of its attendees were discovered. At Catpund, south of Lerwick, soapstone quarries feature large spoil heaps. Perhaps the best known Norse settlement on the Shetland Islands is Jarlshof, a multi-period site occupied continuously since the Stone Age, for almost 4000 years. The site was settled by the Norse from the 9th to the 13th century AD and today the most visible remains are the Norse longhouses of turf and stone and the 16th century laird´s house. The original house was enlarged gradually and other buildings were added when the place developed into a village. The site is largely excavated. The extent of Norse settlement in the Hebrides, or the Southern Isles, is not as well documented as in the Northern Isles of Shetland and the Orkneys. The settlement seems to have been more scattered or concentrated in certain areas, but only a few of them have been excavated, all of them in the Outer Isles. Only few houses were discovered apart from Jarlshof. Two houses have been excavated on the island of Unst. Surveys have revealed further houses, among which is a preserved longhouse at Hamar. King Harald Finehair of Norway is said to have had his fleet anchored here.

The Faroe Islands*:* Many Norse settlement sites have been excavated in the Faroe Islands. Kvívík is a Viking Age farmstead on Streymoy, dated to the end of the 10th century AD. Remains of a 20 m long house still stand 1 m high. It shows the typical Norse construction of earth benches along curved walls of stone and turf, a roof of turf and birch bark and an interior lined with wood; it was accompanied by a detached barn for cattle. An excavated farm at Toftanes near Leirvík consisted of four buildings from the 10th century AD. Only two burial sites are known on the island. One at Tjørnuvík on Streymoy shows graves marked by stone settings but revealed only few grave goods. The other burial site at Sandur on Sandoy also displays settlement remains and early wooden churches, the earliest being from the 11th century AD.

Iceland: The *Landnámabók* (the Book of Settlements), *Íslendingabók* (the Book of Icelanders) and *Íslendingasögur* (the Icelandic Sagas, of which more than 40 are still extant, not including the Kings' Sagas), describe the settling of Iceland from c. AD 870. These accounts provide information about those who arrived, their social status and where they settled. No urban settlement developed on Iceland; instead the settlement followed the patterns of scattered farmsteads known from the western parts of Norway. The material culture was thoroughly Scandinavian, and both dress, weapons, law and language resemble that of Viking Age Norway. Only in the 12th century AD did Iceland depart from the Scandinavian core region; whereas early states had emerged in Norway, Sweden and Denmark by this time, chiefdoms continued to dominate Iceland even though the Althing emerged as a supra-regional assembly from AD 930. Quite a few Viking Age settlements have been excavated in Iceland, the most famous is perhaps that of Erik the Red who later became the first Norse settler in Greenland and was father of Leif the Lucky, credited with discovering America. Pagan burial sites have been found in over 160 places in Iceland with more 300 individual graves, including a few boat burials.

Greenland: Two Scandinavian settlement areas are known in Greenland: Eystribyggð (Eastern Settlement) and Vestribyggð (Western Settlement). Around 190 farms were established in Eystribyggð and 90 in Vestribyggð. At that time, parts of Greenland were already settled by the Thule Eskimos. Eystribyggð was first colonised from Iceland around the mid AD 980s, and the leader of this movement, the legendary chieftain Erik the Red, occupied land innermost in the fjord in modern Tunulliarfik, calling the place Brattahlið and the fjord Eriksfjord. Brattahlið is identified as the present-day sheep-farming settlement of Qassiarsuk, where it is now possible to see the ruins of a large Norse community. Archaeological excavations show that the place was inhabited throughout the Norse period, partly as the seat of the secular authorities. According to written Icelandic sources, it was also from here, at the beginning of the 11th century AD, that the ships which discovered North America set sail. The same sources also relate that Greenland's first church, and therefore also the first church in the western hemisphere, was built at Brattahlið by Erik the Red's wife, Tjodhildur. Archaeological investigations in the 1960s were able to confirm this. No surface traces of this church were to be seen, but on the basis of the archaeological observations a turf bank has now been constructed to mark the extent of this small building.

The overseas settlements of Greenland retained their Norse characteristics due to frequent contact with people living in Iceland, Norway, Scotland and Ireland. There is little evidence for cultural assimilation between the settlers and the Thule Eskimos. However, during the 12th century AD, contact with the other Nordic countries declined, as did the Norse population itself. From around AD 1400, the Norse settlement ceased to exist.

Thanks to their location in a relatively barren, marginal area with a low population density, this unique cultural landscape has largely been preserved intact. Unlike anywhere else within the Nordic cultural sphere, it is possible to observe buildings of various kinds, and with various functions which, together with landscape elements, play roles in the "social space" which was the setting and scene of action for the Greenlandic/Norse culture. This area offers an absolutely exceptional example of the onset of a culture, its development and its demise, all within a period of some 500 years. The site is listed on the Tentative List under criteria *iii*, *iv*, *v* and *vi*, where emphasis is placed on both Greenlandic and Norse culture, faming/living conditions and the cultural landscape as a whole.

L'Anse aux Meadows: The westward voyages of Erik the Red's son, Leif (the Lucky) Eriksson, took him to Vinland. In the 1960s, archaeological discoveries revealed that Vinland was indeed Newfoundland in Canada. In Vinland, at the site known as L'Anse aux Meadows, archaeological excavations have revealed that a Norse settlement only lasted a couple of decades. According to the saga, the settlers left after periods of conflict with the native populations. L'Anse aux Meadows was one of the first sites accepted on the UNESCO World Heritage List in 1978 as the first and only known site established by Vikings in North America and the earliest evidence of European settlement in the New World. It confirms that Vikings travelled to North America and settled there, as written in the Vinland saga. The excavated remains of wood-framed peat/turf buildings are similar to those found in Norse Greenland and Iceland. As such, it is a unique milestone in the history of human migration and discovery.

Settlements in Austrveg

The coastal areas of the Baltic Sea were the other core from which the Vikings explored the eastern parts of Europe from AD 700-1100. There are a number of known settlement sites, often combined with fortified structures, trade and craft production. Places such as Starigard or Oldenburg, Staraja Ladoga, Gorodische, Ralswiek, Wolin and Gnjozdovo are located along rivers. All of these have a strong element of Scandinavian material culture. Traces of weapons and crafts have been discovered at burial and settlement sites, many of which were protected by fortification structures. A further defining feature of the trading centres in this region is the interaction between native inland communities and coastal communities. Whereas the latter show clear signs of Scandinavian interaction, the former do not.

Starigard or Oldenburg: Starigard or Oldenburg was a trading centre whose history goes back to about AD 700. A hillfort and heathen sanctuary are associated with the site. The former was converted into the episcopal centre in AD 1150. Today, only a couple of town walls remain from the first settlement, now located on the outskirts of the Medieval town of Oldenburg. Excavations have, however, ascertained that there was a large harbour whose remains show it was part of a wide-ranging contact network, which extended north to Scandinavia.

Reric: Reric is mentioned in the Frankish Annals of AD 808 and 809, when the trading centre was destroyed and Danish King Godfred reinforced Danevirke and moved his traders to Hedeby. Reric is thought to have been situated south of Wismar in Germany, where a large settlement, a harbour and a burial ground with Scandinavian artefacts, including six boat burials, have been discovered near Groß Strömkendorf. The site developed according to an organised layout. The finds date the settlement to the 8th and early 9th century AD.

Ralswiek: Ralswiek is located on an oblong islet in a protected fjord on the island of Rügen in Germany. Here the settlement is characterised by the production of ceramics, bone and horn artefacts as well as boat-building and metalwork. The settlement is dated to AD 750-850, whereas the burial ground, which consists of c. 400 burial mounds, had a period of use extending over c. 300 years. Cremation graves and urn graves reveal that the deceased were of Scandinavian origin.

Wollin: Wollin is situated on the Polish island of Wolin at the estuary of the river Dziwna. The settlement has urban features such as plot divisions and streets. During the 9th century AD, a semi-circular town wall was constructed; a harbour has also been located as has a burial ground with at least 200 graves; of these, 130 have been excavated and dated to the period AD 900-1200. The archaeological remains resemble those of Birka and Hedeby, but there is a much greater presence of Slav crafts at Wolin than at the two other sites.

Wiskiauten: Wiskiauten is a large burial ground situated at Mohovoe near Kaliningrad in Russia. It consists of over 500 mounds dating from the 9th to the 11th century. The burial tradition and multiple finds are of Scandinavian character. However, recent surveys show mainly local settlement activities as well as local cremation burials from the 7th – 12th centuries. A total of 300 mounds have been excavated.

Staraja Ladoga: Staraja Ladoga is situated on the west side of the Volkhov river in Russia. Ladoga is seen as the gateway on the Austrveg for the journey south along the Russian rivers. According to the Primary Chronicle, this was the seat of Rurik, a Swedish king who was called in to help by local chiefs and established a dynasty here in AD 862. In the 8th century AD, it was already established as a small market place. By the 10th century AD, it developed to a large trading centre and noble residence fortified with ramparts. There are several cemeteries in its vicinity. In addition to predominantly Slav material, many Viking Age objects and features testify to a Scandinavian presence in Staraja Ladoga.

Rjurikovo Gorodišče: The site lies on the Volkhov river in Russia close to Novgorod. From a small Slav settlement, it developed to a fortified trading centre in the 9th and 10th centuries AD. The archaeological remains revealed clear traces of Scandinavian and Slav settlement, including typical burial mounds. The market function moved to Novgorod in the 10th century AD, but Gorodišče remained a military and administrative centre.

Gnezdova: Gnjezdova is situated 15-20 km south of Smolensk in Russia. It occupies a strategically important location on the land connection between the rivers Dnieper and Lovat. The Primary Chronicle reports its foundation by Oleg from Novgorod in AD 882. There is a large cemetery with more than 4000 barrows and a settlement with a fortified centre which revealed rich Scandinavian finds among local material. The trading centre lasted until the end of the 10th century.

Grobiņa: Grobiņa in Latvia is one of the early overseas settlements in the Baltic area. Its strategic position along the river Ālande, which reached the Baltic Sea in the Viking Age, made the settlement attractive for trade and thereby also as a place to settle. Already by the mid 7th century, people from what is today Sweden settled along the Baltic coast and Grobiņa represents one of these early overseas settlements. The presence of these people in Grobiņa is demonstrated by the many cemeteries displaying Scandinavian burial traditions. The settlement of Grobiņa can be characterised as an early urban settlement and was mostly known as Seeburg in the Viking Age. The archaeological record indicates that over a period of 200 years (AD 650-850) there was a Scandinavian presence in the town.

Comparative conclusions on overseas settlements

Scandinavian overseas settlement was clearly diverse, extending from Newfoundland in the west to Grobiņa in the east. Comparatively speaking, it seems fair to argue that in densely populated areas such as Grobiņa, the Scandinavian settlers assimilated relatively quickly with the local populations. In sparsely populated areas, however, the Scandinavian settlers seem to have kept to themselves to a greater extent.

In 1978, L'Anse aux Meadows National Historic Site was among the first 12 sites to be listed on the World Heritage List as the first and only authenticated Norse site in North America. The Canadian government was asked if they wanted to join the current nomination but chose not to do so for the time being.

Greenland, with its Norse settlement in Eystribyggð, represented by Garðar and Brattahlið, also has all the qualities of the comparative criteria listed above and could very well have been included in this transnational serial nomination. However, Greenland has chosen not to participate in the current nomination process.

In England and Ireland, the towns of Dublin and York were important places for Scandinavian expansion and both have valuable remains from the Viking Age. However, in both cases, the Viking Age layers only form part of the archaeological heritage and they are, moreover, located beneath the modern city which affects their integrity considerably.

Sites on the Isle of Man, the Orkneys as well as Shetland could also have potentially been included as possible sites for comparison and inclusion in this nomination. However, the State Party of the United Kingdom of Great Britain and Northern Ireland chose not to take part in the current nomination and these islands have therefore been excluded from the nomination.

The settlement, the hillfort and the large burial grounds reveal Grobiņa in Latvia to be one of several nodal points along the Baltic Sea. Grobiņa's cemeteries demonstrate a gradual process of assimilation; only after a century of contact did the first Scandinavian-Curonian hybrid grave emerge. The previously mentioned settlements from Oldenburg to Wollin all display the same artefacts. However, Oldenburg, Reric and Ralswiek

lack visible traces of the settlements. In Wollin there are still visible remains, but a large part of the settlement has already been excavated and is better regarded as a fortified urban settlement rather than an overseas settlement. In this context, Grobiņa's unexcavated burial grounds, the less-explored settlement areas and the hillfort make it possible to still extract further new scientific data from the site. In addition, Grobiņa was an important and early starting point on the Scandinavian trade route eastwards to Byzantium and the Arabian caliphate.

The layout and content of Grobiņa can best be compared to the archaeological complexes of the Austrveg (Eastern Way), the route linking the Viking Age world with the east; places like Wiskiauten (Russia), Rjurikovo Gorodišče near Novgorod, Staraja Ladoga and Gnezdova near Smolensk (Russia). All of these were significant parts of Austrveg, although they differ slightly in chronology and status. Wiskiauten and Grobiņa can be characterised as the starting or finishing points of the Austrveg, Staraja Ladoga, Rjurikovo Gorodišče and Gnezdovo were significant sites along the way, and also centres for the origin of early states and monarchies. All of these places can be understood as multi-ethnic centres for communication, where groups of early traders met. Their situation depends exclusively on the two large river systems of Daugava/Dnepr and Volchow/Volga, which were the essential routes for the Austrveg. At all sites, the correlation between settlements and burial sites is still being considered. All show great diversity in burial customs and archaeological material, demonstrating the interaction between the local society on the one hand and Viking Age Scandinavians on the other (Petrovich 1991). The local society accepted the new socio-economic situation on a major scale. Most of the Viking Age settlement in Staraja Ladoga is now covered with modern houses. At the cemetery, which has been excavated since the 1970s, nothing is visible above ground (Carlsson & Adrian Selin 2012: 37-46). Gnezdova is better preserved and more visible but has also been excavated. The Scandinavian burial site of Wiskiauten has been subject to illegal plundering activities during recent years. There is great diversity in the burials at both Grobiņa and Gnezdova. However, Grobiņa, shows an older and more extended development of the site. Consequently, in the current nomination, ***Grobiņa*** *has been chosen as an example of an overseas settlement site and of the cross-cultural interaction with other peoples, because it is deemed adequate to illustrate the processes of expansion and interaction. However, further sites, especially from Vestrveg, could enhance both the integrity and the authenticity of these aspects in the future.*

3.2.6 COMPARATIVE ANALYSIS: FINAL CONCLUSIONS

From this comparative analysis, it is obvious that archaeological heritage illustrating the development of states and societies in the Early Middle Ages, of which Viking Age sites in Northern Europe is an example, is underrepresented, both on the World Heritage List and on the Tentative Lists. Notably, the distinctive but diverse cultural heritage of Northern Europe, which bears witness to this transformation process, is not reflected by the World Heritage List.

While Scandinavia is the source of many of the characteristic types of sites involved in this process, all of them show reciprocal influences from the rest of Europe leading to new heights in the Viking Age. For example, ship burials are already known from the earlier Vendel period of Scandinavia and seem to have spread to, or influenced, such remarkable examples as that at Sutton Hoo in England. However, the apogee of this tradition can clearly be seen in the large burials of the Viking Age in Scandinavia. Towns are another example: While trading sites, such as Dorestad in the Netherlands, emerged around the North Sea and the Baltic Sea, the emporia of Scandinavia are the most remarkable and best preserved of these urban centres, providing evidence reflecting the extent of the Norse trading networks. They seem to have exerted a strong influence on the development of trading towns in the British Isles and in Central and Eastern Europe. Monuments of Christianity serve as a third example: Stone churches are known from much earlier times in the British Isles and France, but Christianisation in Scandinavia led to the creation of remarkable and unique monuments, like the rune stones with their Christian symbolism. The comparative analysis demonstrates accordingly that some of the best preserved examples of such sites are to be found in the Viking Age of Northern Europe and that this nomination combines a selection of the most prominent of these archaeological monuments into a conclusive series which is descriptive of the transition to Medieval civilisation. The comparative analysis also makes clear that a coherent illustration of this process in the Viking Age had to be achieved by a combination of sites which are clearly linked together via the Norse culture of the time.

Other regions in Europe have apparently found very different artistic and architectural expressions in the course of their transition to Medieval civilisation, as can be seen in the monuments of the Lombards in Italy, the monasteries and stone forts of Ireland or the "Cave Towns" of the Crimean Gothia. This nominated series as a whole is, however, able to reflect a material heritage that cannot be found elsewhere in this state of preservation, material expression and coherence – the Vi-

king Age culture of the Norse – in order to tell the story of the dawn of the Middle Ages in Northern Europe.

As such, the current nomination represents a valuable contribution to the World Heritage List, as it provides a more diversified picture of Medieval Europe.

Without duplicating the above text, it is clear that this thorough analysis of each of the sites included in the transnational serial nomination, ***Viking Age Sites in Northern Europe****, has shown that the series, comprised of seven component parts from five States Parties, represents outstanding examples of type-sites from the time, exemplifying the development from chiefdoms to early states in Medieval Europe.*

Over and above the selected sites, this comparative analysis has made it evident that further sites potentially possess values of interest to the serial nomination.

Among these are:

- *Two sites on the World Heritage List with already defined global values: 4* L´Anse aux meadows *in Canada, and 555* Birka and Hovgården *in Sweden.*
- *One site on the Tentative List, 1781* Garðar and Brattahlið *in Greenland*

These all have outstanding values that could allow them to become part of the serial nomination Viking Age sites in Northern Europe. All three countries have, however, either decided not to participate in the nomination for the time being or, as the case of Greenland, to present a nomination with a different focus. The values represented by these sites are, however, also represented in the selected sites of the actual serial nomination.

The selected sites included in the transnational serial nomination ***Viking Age Sites in Northern Europe****, are outstanding examples which enable visualisation of how Northern Europe developed from diffuse chiefdoms to early states, from an archaeological, a scientific and a typological point of view.*

3. 3.
PROPOSED STATEMENT OF OUTSTANDING UNIVERSAL VALUE

A) BRIEF SYNTHESIS

The serial transnational property *Viking Age Sites in Northern Europe* is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th – 11th centuries AD.

During this time, commonly referred to as the "Viking Age", the Norse people travelled from their homelands in Scandinavia – as Vikings – for the purposes of trade, raiding, exploration and the search for new lands to settle. They interacted with pre-existing local populations during the course of their sea voyages eastwards and westwards and thereby also exerted substantial influence on areas outside Scandinavia. The nominated property includes five component parts from the core region of Scandinavia and two North European sites from the area of expansion and interaction.

The Jelling mounds, runic stones and church in Denmark and the Þingvellir National Park in Iceland are World Heritage Sites.

The Viking Age was an important transitional period in Northern Europe which, for the most part, had never been part of the Roman Empire. Made up of a network of politically unstable chiefdoms and petty kingdoms in the 8th century AD, the region became dominated by the formation of Medieval states by the 11th century AD. All the nomination's component parts are located where essential historical actions took place during the Viking Age. These actions have left various physical constructions which illuminate central themes in the making and development of Viking Age societies. The component parts are scientific keys to an understanding of this transition and the concurrent changes in economy, society and religion. This series of sites thereby constitutes an important testimony relative to the cultural-historical period of the Viking Age in the geo-cultural region of Northern Europe.

The serial property comprises the archaeological remains of a trading town and an assembly site, as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places, covering the entire duration of the Viking Age. Consequently, the series of sites testifies to the diversity of remarkable material evidence available from the Viking Age, and provides valuable information on the changing societal, economic, religious and political conditions of the time supported by contemporary written sources.

B) JUSTIFICATION FOR CRITERIA

Criterion iii: bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared.

In the Viking Age, local tribal societies in Northern Europe became an integral part of the civilisation of the European Middle Ages. The development of shipbuilding technology and navigational skills for sea voyages was crucial for the political, religious, social and economic processes of this transition. In the course of this transition, the people of the Viking Age became the first to inhabit the North Atlantic islands of the Faroes and Iceland. They were also the first European people to reach Greenland and even North America in historical times.

The interaction with people and power structures in Europe changed the Scandinavian societies.

Collectively, this series of the seven component parts explains the change in pagan local traditions, the shift in settlement structures and economic concepts and the development of parliamentary traditions and of lasting institutions of power in Northern Europe, characterising the transition to Medieval states, through a remarkable material heritage extending from the 8th – 11th centuries and rendering the ensemble an exceptional testimony to the Viking Age.

Criterion iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

The migration and the interaction of the Norse with other peoples in Europe led to new architectural expressions and uses of the landscape which are preserved today as impressive archaeological sites dating from the 8th – 11th centuries.

This series of Viking Age localities consists of archaeological key-sites that illustrate the emergence of Medieval societies and states in Northern Europe during the Viking Age.

It encompasses the archaeological remains of sites of governance with symbolic and religious monuments, assembly sites for deciding legal and political issues, defensive structures such as ring fortresses and border defences, production sites such as quarries, trading towns with harbours, burial places such as ship burials in large barrows and sites of cultural interaction. These types of archaeological sites are distinctive for the Viking Age in their specific form, architecture and layout, use and function and material expression and, as such, bear exceptional witness to this time of transition in Northern Europe.

C) STATEMENT OF INTEGRITY

All the archaeological sites in this nomination belong to the same cultural-historic group, which is characteristic of the Viking Age in Northern Europe. They cover the entire historical period from the 8th to the 11th century AD. Due to the archaeological nature of the remains, a large number of the sites from the Viking Age have been destroyed over the course of time, whereas others still await detection. This series constitutes a selection of well-preserved Viking Age sites of great historical and scientific value, which are large enough to be able to preserve these values for the future. Together, the component parts complement each other exceptionally well, reflecting different aspects of the transition from tribal chiefdoms to Medieval kingdoms in the Viking Age and therefore serving as "scientific keys" to its understanding.

The borders of the nominated property are defined by the extent of the complete archaeological sites of the component parts. Representing all important historical building phases and structures, the archaeological material and substance, the construction and layout and the situation and setting of these sites are adequately intact in order to convey the significance of each component part and of the property as a whole.

D) STATEMENT OF AUTHENTICITY

The credibility and truthfulness of the evidence for the interpretation of the archaeological sites in this series for the transitional process from tribal societies to Medieval states in the Viking Age is conveyed by the genuine archaeological material, as well as the construction and layout and the situation and setting of the component parts. All archaeological remains of the nominated property have retained their authentic construction and layout since the Viking Age. The archaeological material and substance of the nominated property is also entirely authentic. All building phases, features and their remains relevant to this nomination date from the Viking Age or are likely to do so. Important topographical conditions and features, which were historically availed of in the choice of site and the layout of the structures, are still recognisable even today. Where recent repairs and restorations have been carried out, these can clearly be distinguished from the historical material and are based on complete and detailed archaeological documentation.

The credibility of the evidence has been corroborated by numerous written sources and extensive research using established archaeological and scientific methods. The theories employed in the interpretation of the sites and of historical processes in the Viking Age are derived from this research and have wide acceptance in the scientific community.

E) REQUIREMENTS FOR PROTECTION AND MANAGEMENT

The values and integrity of the nominated serial property are managed and safeguarded by management systems on two levels. The integrity and values of the entire serial property are maintained within a transnational management framework, with all States Parties committed to the aims of protecting, preserving, monitoring and promoting the Outstanding Universal Value of the nominated property.

The day-to-day maintenance of all attributes conveying value, integrity and authenticity takes place on the level of the individual component part. The responsibility for the management on this level remains within each State Party.

All component parts and their buffer zones are protected according to the legal systems in place in each State Party. In addition, the majority of sites and areas are owned by public bodies. The various protection and planning mechanisms, and acts which apply directly to the component parts, are sufficient to guarantee the protection and preservation of the Outstanding Universal Value, integrity and authenticity of the whole nominated property and its component parts.

Funding is provided by the participating States Parties or regional government for the Steering Group and the Secretariat, while the funds for the management of each component part are generally sustained by the responsible States Parties or regional authorities.

A core issue of cooperation among the partners in the serial nomination and beyond is the building of an active network between Viking Age key sites and their stakeholders which will improve management, conservation, communication and monitoring of the Viking Age heritage on an international level. Among the main tasks for this network will be to improve the overall parameters for the common monitoring system, to maintain and enhance support from regional and local communities and other stakeholders for the preservation of the sites and their settings and to secure financial support in order to improve maintenance and presentation of the sites.

Threats common to most of the sites included in this nomination, such as land use, housing developments and visitor pressure, and also natural agents like plant growth and animal activities, need to be tackled in a collaborative way. More site-specific threats, such as damage by development, specific animals or plants, or earthquakes, require additional research and training and the exchange of expertise, knowledge and mutual support.

The overall management group will consist of representatives from National Heritage Boards, Cultural Heritage Agencies and/or Ministries in the respective States Parties, according to the legal responsibilities awarded them by their respective cultural heritage laws. The respective site managers will also form part of the group.

The formation of the overall management group will take place in 2014 and the first meeting is planned for December 1st 2015.

STATE OF CONSERVATION AND FACTORS AFFECTING THE PROPERTY

4

4.A
PRESENT STATE OF CONSERVATION

The state of conservation of the serial nomination *Viking Age Sites in Northern Europe* is generally good. The nominated property comprises a range of monuments and sites with various conservation and management needs and subject to various environmental and human related factors. Therefore the present state of conservation is described in sub-chapters for each component part but summarised below.

The nominated component part of **Þingvellir** (1) lies within an area already listed as a World Heritage Property as well as being in a national park. The main concerns for the current state of conservation relate to the river Öxará which flows through the assembly site. A few times a year it overflows and water spills over pathways and on to the riverbanks. Þingvellir is also the most popular tourist destination in Iceland and therefore much attention has been paid to footpaths and guiding visitors through the assembly site. The archaeological remains are in a good state of conservation.

The mounds, rune stones and church in **Jelling** (2) are already listed as a World Heritage Property. The mounds and rune stones require attention in the form of conservation actions. The church is well maintained and the palisade area and stone setting are underground. The process of securing the site is ongoing.

All three **Trelleborg fortresses** (3) have had their circular ramparts and ditches marked and re-cut – however, at *Trelleborg* (3.3) the original rampart is partially preserved. All three fortresses are considered to be in good states of preservation, but some mole activity has been observed. The process of securing the sites is ongoing.

On the whole, the state of conservation of **Hedeby and Danevirke** (4), in regard to the significance of the monuments as archaeological structures and as scientific sources, is to be rated as outstandingly good. The component part as a whole is generally in a condition that is able to secure its historic, scientific and social values for the long term. Locally, the state of conservation varies to some degree, especially as some areas are subject to current encroachment by plant cover, agricultural use or frost. All of these restrictions are being minimised by measures within the scope of the management plan.

The **Grobiņa burials and settlements** (5) represent well-preserved, outstanding and unique evidence of an ancient habitat, the existence of very extensive, long-distance trading and contact networks of the Norse, the interaction and fruitful symbiosis of different cultures and ways of life including that of the Curonians. The Grobiņa archaeological ensemble has largely retained the landscape that was typical during the time of its existence. The process of securing the sites is ongoing.

The sites that form the **Vestfold ship burials** (6) are well preserved and their state of conservation is in general good. The mounds are robust structures preserved for more than a thousand years and they are not vulnerable to the effects of natural catastrophes, climate change or sudden extremes of weather. A common feature of the sites is that they are situated in existing agricultural areas where cultivation and use of land have contributed to the maintenance of the cultural landscape. While located fairly close to urban concentrations where there are strong commercial development pressures on agricultural land, the sites have been designated as "cultural environments" following the adoption of *Vestfold Regional plan for sustainable area politics,* ensuring that development around the sites is prevented.

The **Hyllestad quernstone quarries** (7) are well preserved with a generally good state of preservation. As the quarries are located in outlying areas, there has been relatively little activity affecting the cultural landscape after the end of production. The nominated component part has mostly been used as grazing land for livestock and the

FIGURE 4.1 *Overview of the Þingvellir assembly site; Almannagjá is to the left. The river Öxará flows in front of the Þingvellir farmhouse and church.* ©*Einar Á.E. Sæmundsen.*

majority – approximately 97% – of the stone quarries is untouched. Challenges in connection with development features and land-use designation in the quarry landscape are modest, and today overgrowth with vegetation constitutes the greatest challenge to landscape and cultural heritage values. The close location to the sea of a small part of the nominated component part may be affected by future sea-level rise and flood waves, but with a minor effect on most quarries.

ÞINGVELLIR (1)

Þingvellir National Park has remained under a single administration (the Þingvellir Commission) since it was founded in 1930. The nominated property is the innermost core of the national park. Consequently, the supervisory duties of the national park administration and its responsibility for conditions in the park and its impact area have engendered a very strong commitment to conservation. The park administration pursues all possibilities in ensuring that the national park does not deteriorate and that it is being run in a sustainable fashion.

The assembly site lies in a unique and dynamic geological setting. The chief characteristic of the Þingvellir landscape comprises fissures, the largest of which, *Almannagjá* (Everyman's Gorge), forms a cliff wall and a backdrop to the ancient assembly site. These fissures are part of the Þingvellir rift valley, formed on tectonic plate boundaries where two continental plates are moving apart. The Þingvellir rift valley can be particularly clearly seen on the surface and was cited as an example when the theory of plate tectonics was being formulated in the 1960s – the foundation for modern understanding of geological processes and land formation.

The river Öxará flows through the assembly site and for centuries it has had an impact on the site through erosion of the river banks. A few times a year the river overflows and water spills over pathways and on to the riverbanks. The river stems from Myrkavatn, a small lake in the mountains to the north of the site. According to ancient legends, the river was diverted down on to the flats by the earliest settlers and those who attended the first assembly meetings.

Two buildings are found within the nominated area, Þingvellir church and Þingvellir House. Þingvellir church is currently listed as a protected building. The buildings have been maintained in accordance with guidance from the National Architectural Heritage Board, now the Cultural Heritage Agency of Iceland. Þingvellir House is the official summer residence of the Prime Minister of Iceland and each elected prime minister is in charge of the building for public or private use. The national park and Þingvellir church use the northernmost part of the building. Maintenance of Þingvellir House is carried out by the Prime Minister´s office, in cooperation with the national park.

Footpaths have been laid through the innermost assembly site so as to protect remains, geological formations and vegetation. These paths are properly maintained, by the addition of paving material and the laying of turf beside them, whenever needed. Measures are constantly being examined to protect the innermost assembly site as far as possible. There are four main car parks where visitors park and walk to the site.

The uniqueness of the assembly site comprises, on the one hand, its history and archaeological remains, and on the other, the geological formations within which that history took place. Acceptable change is therefore restricted primarily by the constraints of conservation of archaeological remains and the respect that they should be shown. The natural environment and vegetation must also be conserved, as the visible setting for the site's history, without diverting attention towards irrelevant man-made structures.

Lava formations adjacent to Almannagjá will be protected from erosion, together with the small amount of vegetation that thrives there, while provision is made for man-made structures and roads as necessitated by services to visitors, including those with limited mobility, provided that this is achieved in harmony with the environment. Structures on Hakið will not be visible from the assembly site.

JELLING (2)

In their current state, the mounds require attention in the form of conservation actions. In 2011, the rune stones were covered to protect them against decay and vandalism. The palisade area and the stone setting is, on the other hand, well secured at its current location beneath the soil. It is partly physically marked in the area to avoid misunderstandings and unnecessary wear and tear. The church is well maintained and well secured against decay. All the monuments require attention in one way or another, but with Local Plan 1150 from 2012, and the installation of a cover over the rune stones, the main problems have been solved.

The mounds are built up of grass turves and are therefore naturally threatened by decay and erosion. However, each of the mounds has stone steps leading from ground level to the top, so daily wear is avoided. Recently, larval activity has damaged the roots of some of the grass on the South Mound, but counter measures have been taken. The state of the mounds is good and conservation and preservation actions are taken to maintain the historical size and shape of the mounds. A flag pole stands on the top of each of the mounds and the Southern Mound also has a triangulation station.

The state of the rune stones – specially the smaller of the two – gives cause for concern (Trudsø et al. 2008), but as a result of the *ICOMOS Advisory Mission report on the Jelling Mounds, Runic Stones and Church (Denmark) (697), 15 November 2008*, in 2011 the rune stones were protected with two covers. A programme of daily monitoring and maintenance has been established and their state is expected to become stabilised.

The church is maintained and the traces of former buildings are sealed beneath the present floor inside the church.

The traces of the palisade and the buildings conjoined with it are hidden beneath the soil. Parts of the structures have been excavated, but none in total. All traces of houses have been uncovered during these investigations. The palisade has been partly excavated in sections, other sections have not been uncovered, while a smaller part might have been removed by house building. The marking of the palisade was established on the ground along a course running outside the actual traces of this feature, while the houses were marked on the surface above the preserved traces of these buildings. The timber of the palisade preserved in situ in the pond, Smededammen, is secured by the stable water level.

FIGURE 4.2 *Protective coverings for the two rune stones at Jelling were erected in 2011 to ensure a controlled environment and to prevent damage to the monuments.* ©*Anne Pedersen.*

The stone setting has been investigated during several excavation campaigns. Standing stones are only preserved in situ inside the Southern Mound; elsewhere the stones have been recorded solely by traces of the pits that held them.

In other words, the Jelling mounds, the rune stones and the church are naturally those features which require the greatest amount of attention because of their exposed situation above ground. Much of the complexity of the palisade area and the undisturbed house remains well secured beneath the soil.

THE TRELLEBORG FORTRESSES (3)

All three fortresses form an integral part of the recreational areas within their respective regions and various signs and other media provide guidance to the public.

AGGERSBORG (3.1)

The area of the fortress was cultivated until 1987, when scheduling was initiated. In 1994, the circular rampart and the ditch were respectively marked and re-cut following an archaeological investigation aimed at ensuring the authenticity of the marking. No buildings or streets were marked, but the gates are shown. The rampart was marked with a low bank of turf and modern fill was removed from the ditch.

A manor, Aggersborggård, dating from the Late Middle Ages, is located on the most southern part of the fortress area, which is disturbed as a consequence. The existence of the southern part of the fortress is assumed from the topography and a geo-physical investigation of the ditch. The process of scheduling the ditch beneath the soil at Aggersborggård area is ongoing.

Mole activity has been observed. The Aggersborggård area

FIGURE 4.3 *The Trelleborg fortress, with the circular rampart, ditch and buildings marked or re-cut.* ©*Viking Fortress Trelleborg/Anne-Christine Larsen.*

with the subsoil remains of the ditch is used as garden and a vehicle access road with wheel tracks.

The site is considered to be in a good state of conservation. A standard of maintenance at the present level will secure the site for the future.

FYRKAT (3.2)

The area of the fortress was cultivated until 1950, when excavation and marking-out was initiated. The circular rampart, ditch and buildings have been respectively marked and re-cut. The rampart was marked with an earthen bank and the ditch was excavated. The postholes relating to the buildings and the streets were marked with concrete, showing the shape of each of the excavated postholes. In 2010, each of the graves was marked with a pile of turf showing its outline.

Mole activity has been observed.

The site is considered to be in a good state of conservation. A standard of maintenance at the present level will secure the site for the future.

TRELLEBORG (3.3)

The area of the fortress was cultivated until 1933, but the ramparts remained visible in the terrain. The circular rampart, ditch and buildings were respectively marked and re-cut when the fortress was excavated in 1934-42. The postholes relating to the buildings and the streets were marked with cement, showing the shape of each of the excavated postholes. In 1989, each of the graves was marked with a pile of turf showing its outline.

Mole activity has been observed.

The site is considered to be in a good state of conservation. A standard of maintenance at the present level will secure the site for the future.

HEDEBY AND DANEVIRKE (4)

On the whole, the state of conservation, in regard to the significance of the monuments as archaeological structures and as scientific sources, is to be rated as outstandingly good. The component part as a whole is generally in a condition which is able to secure its historic, scientific and social values for the long term. Locally, the state of conservation varies to some degree, especially as some areas are subject to current encroachment by plant cover, agricultural use or frost. All of these restrictions are being minimised by measures within the scope of the management plan.

Almost 40% of the defensive system of the Viking Age and medieval Danevirke is preserved, when measured against its potential reconstructed size today, admittedly with very great local variation. In the case of Hedeby, the extent of conservation is naturally less, since the settlement and the port were built exclusively from perishable materials. The site's condition, when measured against that originally present, is estimated at almost 10%. This is exceedingly good compared with other archaeological sites of the same material composition.

In one place a short stretch of the body of Danevirke rampart has been restored. A 19th century bastion of Danevirke, the so-called Redoubt XIV, was exemplarily repaired in 2005. From 2002 to 2008, seven houses and a landing-stage for ships were reconstructed in Hedeby, on land that had largely been excavated.

Less than 4% of the nominated areas are still being used for agriculture, i.e. for cultivation or as grassland. Since this use can compromise the monuments, the affected areas are to be taken out of cultivation or grazing within the framework of the site management plan.

In the past, Waldemar's Wall, a brick wall directly visible for a distance of about 80 m, was affected by frost. Exposure of the wall, which occurred back in the 19th century, goes a long way in helping to illustrate the complex history of the structure to the visitors today. A drainage system, which was installed between 2007 and 2009 in the earthen wall behind a visible part of the brick wall, prevents water from the earthen wall from seeping through the front of the brick wall and freezing there. The effectiveness of these measures is being constantly monitored so that, should the situation arise, further measures can be undertaken as required.

Plant cover damaging to the archaeological remains will be removed according to the site management plan. Reed beds along the shoreline at Hedeby damage the settlement layers and the finds within them with their underground rhizomes. Within the scope of the site management plan, work has now begun on mowing the reed-covered areas and on transforming them into ecologically valuable brackish saltmarshes through extensive grazing with cattle. These measures also include trees seen as being at risk of collapse. Since the roots of trees and shrubs can similarly disturb the stone walls and archaeological layers, wild grassland or rather ground-cover (i.e. a herb layer) is being fostered as plant cover with the function of stabilising the ramparts.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

The Grobiņa archaeological ensemble represents well-preserved, outstanding and unique evidence of an ancient habitat, the existence of a very extensive long-distance trade and contact network created by the Norse, the interaction and fruitful symbiosis of different cultures and ways of life including that of the Curonians. The Grobiņa archaeological ensemble has largely retained the landscape that was typical during the time of its existence.

THE SMUKUMI FLAT-GRAVE BURIAL SITE (5.1)

In the past, this burial site was partially damaged by digging of a gravel pit which actually led to the discovery of the site. More recently, the burial site was partially destroyed by construction of a road and expansion of an industrial area. Currently, conditions in the preserved area of the burial site are stable.

THE PORĀNI (PŪRĀNI) BURIAL MOUND SITE (5.2)

The external visible features of the mounds have remained only partially intact, because they were damaged during and after World War II. The damaged mounds have since become overgrown with trees and currently their state of conservation is stable.

GROBIŅA MEDIEVAL CASTLE WITH BASTIONS (5.3)

Grobiņa Medieval castle ruins have been conserved and are maintained in a stable condition. The possible Viking Age cultural deposits were damaged by the construction

of Grobiņa castle earthworks. At the same time, these are covered and theoretically conserved by the ruins of the Medieval castle.

THE PRIEDIENS BURIAL MOUND SITE (5.4)

The Priediens burial site was created on sandy ground which, over time, has experienced erosion and natural levelling of the surface. The periphery of the site was partially damaged during World War II. In the years after the war the periphery of the site was partially damaged by the establishment of an equestrian centre and gravel pit.

THE ATKALNI FLAT-GRAVE BURIAL SITE (5.5)

The territory of the burial site has been ploughed for a very long time and, as a consequence, the graves in the arable layer have been disturbed. In deeper layers the graves lie undisturbed.

THE GROBIŅA HILLFORT (SKABĀRŽA KALNS) AND SETTLEMENT (5.6)

The visual image of Skabārža kalns has been affected by the creation of the Ālande river millpond. Part of the settlement next to the hillfort is covered by residential and municipal buildings.

THE VESTFOLD SHIP BURIALS (6)

The Vestfold ship burials are not vulnerable to damage or to the effects of natural catastrophes, climate change or sudden extremes of weather. This is partly because they are located in a region which climatically is not one of the most exposed areas of Norway and partly because the mounds are robust structures which, for the most part, have been preserved for over a thousand years in their original form on the sites on which they were built.

The damage that has occurred over time is primarily due to human activity, often combined with a lack of information. Archaeological excavations in modern times have not affected the whole mound at either Gokstad or Oseberg since access to the ship and the grave goods was established through a horizontal shaft. At Borre, the removal of large amounts of soil from the Ship Mound led to its total destruction in 1852, while yet another large mound disappeared prior to 1900. The remainder of the mounds and cairns at Borre are preserved in their original form following grave robberies. Mounds that have been ploughed over and have disappeared are also included to some extent in the areas. The same applies to other archaeological remains that are not visible above ground.

A common feature of the three properties in the nominated area is that they are situated in existing agricultural areas where cultivation and use of the land over a long period of history have contributed to the maintenance of the cultural landscape. All are located fairly close to urban concentrations in Central Østlandet (the southeastern part of Norway) where, in a national perspective, there are strong commercial development pressures on agricultural land. In the nominated areas, parts of the land constitute automatically protected monuments and sites.

BORRE (6.1)

The nominated area in Borre Park has suffered considerable problems over time due to overgrowth with vegetation. This has affected the visual appearance of the cultural environment and has led to decomposition because plant roots penetrate the mounds, leading to increased oxygen supply and water seepage. Regrowth has been a challenge with respect to care and maintenance since the time when Borre Park was established in the 1930s. In 2007, the mounds were no longer visible from the sea and the connection between the cultural monuments and sites and the fjord was greatly reduced. The overall plan for Borre Park sets out a strategy for targeted care and maintenance and permanent funding of necessary measures.

The nominated area is an important outdoor recreational area for the local population and contains a network of paths. Today, the area is used in both summer and winter for walking, cycling and swimming activities. On 17th May, the inhabitants of the municipality celebrate Norway's Constitution Day in the park.

Since 2004, a number of measures have been implemented, first and foremost the clearing of vegetation through planned felling of tall trees and clearance of scrub and ground flora. Clearance is an activity that has to be repeated every year. Vestfold County Authority is responsible for the maintenance of the park. Today, zones allowing a view of the sea have been established.

Problems with erosion and excessive wear and tear on the terrain on and around the mounds as a result of use have

been recorded. Experience has shown that this can be successfully repaired as necessary, but today there are clear paths and traces of wear and tear on several of the mounds.

The area from the Borre mounds and south towards the town of Åsgårdstrand is included in the National Registration of Valuable Cultural Landscape and is among those receiving highest priority in Vestfold. The building of Midgard Historical Centre was completed in 2000. The construction of a Viking longhouse at Borre was completed in 2013. In the World Heritage nomination, the centre and the longhouse, as well as 35 leisure buildings (2010), are included in the proposed buffer zone.

OSEBERG (6.2)

The mound is situated at a low point in the terrain in the middle of Slagendalen and is surrounded by a contemporary stone wall. There is a lawn inside the stone wall and Tønsberg Municipality is responsible for care and maintenance. Along the Oseberg stream the individual landowners are responsible for felling and clearance. No problems have been observed linked to erosion and wear and tear in the nominated area as a result of use by the public.

The buffer zone consists primarily of cultivated land. The continuation of agricultural activities is the most important strategy in safeguarding the cultural environment and the impact of the burial mound on the landscape.

GOKSTAD (6.3)

A park has been established around the mound, which is demarcated by a stone wall. Inside the stone wall a grassy wildflower meadow with a few trees surrounds a memorial erected in 1928. The municipality of Sandefjord is responsible for care and maintenance. No problems linked to wear and tear and erosion in the park has been observed. However, the nominated area is influenced to some extent by traffic noise and the visual impact is affected by the road and railway, and power lines. There are, however, plans for removing the power lines and replace them with underground cables.

The buffer zone consists of cultivated land and includes the area in which Gokstad Revitalised conducted archaeological excavations during the summers of 2012 and 2013. The continuation of agricultural activities is the most important strategy in safeguarding the cultural environment and the impact of the burial mound on the landscape.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

Quernstone production largely took place in outlying areas. These are also defined as outlying areas today and there has been relatively little activity that has affected the cultural landscape after the end of production. The nominated property has mostly been used as grazing land for livestock, and the majority – approximately 97% – of the stone quarries are untouched.

At Myklebust (7.1), the largest concentrations of quernstone quarries is in the northeastern parts of the farm property, where the nominated area is situated. There is a considerable variation in the area, which is characterised by an alternation between open land and hardwood forest with some occurrence of spruce.

Millstone Park has been established in the southern part of the nominated property at Myklebust, directly south of the national road. The area is very well suited for conveying information and has been adapted for visits by the general public. A walking trail has been made through the quarry landscape which consists of a more or less continuous chain of quarries. One of the quarries in Millstone Park was released by the Directorate for Cultural Heritage on 18th October 2005 so that test cutting and research on cutting techniques and the use of tools in quernstone production could be carried out. The area released amounted to 200 m^2. The remains of a small hydro-electric power station can be found in the western part of Millstone Park. The power station has resulted in some disturbance and destruction of the spoil heaps from production in this area. The remains of the power station are barely visible today and therefore do not mar the aesthetic value of the landscape. Overall, the majority of the quarries in the area are untouched and this, in combination with the large extent and dimensions of the quarry, means that Millstone Park stands out as an area of great integrity.

The nominated area at Myklebust extends north of Millstone Park. In the southern part of this area, directly north of the national road, parts of the spoil heaps at one of the quarries have been disturbed due to the excavation of drainage ditches in connection with agricultural operations. However, these encroachments are relatively small, taking into account the large size of the quarry.

At Rønset (7.3), the nominated area is situated in the northwestern part of the farm. The extraction has resulted in a hilly landscape, where the stone quarries and spoil heaps lie very close together. Large parts of the area are

FIGURE 4.4 *The nominated property at Rønset, seen from the air.*

also defined as a noble hardwood forest reserve. This has to a large extent restricted the use of the area and agricultural activities other than livestock grazing are not permitted here. The very special forest and the hilly landscape formed by quarrying operations help to make the area unique.

At Rønset, the quarries are situated on both sides of national road 607. However, the size of the production area means that only a small part is affected by the road. In addition, a power line crosses the quarry area, but this is positioned so as to cause the least possible disturbance to the production area.

The nominated area at Sæsol (7.2) is situated on the fringes of the large quarry areas at Hyllestad and, as mentioned, differs in character from the central areas. The spoil heaps at one of the quarries have been disturbed. Apart from this, no activities have affected the quarry landscape after the end of production. Today, the entire quarry area at Sæsol is used as grazing land for livestock, which contributes to maintaining a relatively open landscape. This makes the quarries more visible and accessible, thereby augmenting cultural heritage values in the area.

4 .B
FACTORS AFFECTING THE PROPERTY

Factors affecting the nominated serial property are described in detail in sub-chapters for each component part but the main factors affecting them are summarised below and listed in Table 4.1.

(I) DEVELOPMENT PRESSURES

At **Þingvellir** (1) and the **Hyllestad quernstone quarries** (7) development pressure is minimal to zero. The main concern for **Jelling** (2) was heavy traffic along the main road through the town, which ran directly adjacent to the monument area and caused vibrations which could affect the monuments. Removal of this road was carried out in 2013. Agriculture has done some damage to the remains of the palisade and the buildings, but the entire open area inside the palisade is now totally protected from disturbance and damage due to expropriation of the affected areas. At the **Trelleborg fortresses** (3) *Fyrkat* (3.2) and *Trelleborg* (3.3) there is minimal to zero development pressure, however at *Aggerborg* (3.1) there is cause for concern regarding plans to replace current 80 m high wind turbines with new ones with a total height of 150-250 m outside the buffer zone. At **Hedeby and Danevirke** (4) there are some development pressures. At *Hedeby* (4.12), these only include agriculture, which has a minimal impact on the monument itself. Parts of Danevirke are under greater pressure, both from agriculture within the property and gravel extraction within the buffer zone. The expansion of housing areas within or close to the buffer zone, as well as new wind energy plants in the wider setting, could be a future issue. The part of Danevirke called *Kovirke* (4.13-4.18) is partly within a military training facility. The **Grobiņa burials and settlements** (5) are partially situated in an urban area which has had an impact on the sites in the past. This impact is now being minimised. At the *Smukumi* (5.2), *Atkalni* (5.5) and *Priedens* (5.4) burial sites there is some agricultural pressure and the area of *Porāni* (5.1) is being used for forestry. At the **Vestfold ship burials** (6), agriculture is one of the measures used to maintain the open landscape at the sites, but constant supervision is necessary to minimise the impact on the actual monuments.

(II) ENVIRONMENTAL PRESSURES

At the **Trelleborg fortresses** (3) and the **Vestfold ship burials** (6) environmental pressures are minimal to zero. The only environmental pressure at **Þingvellir** (1) is the encroachment of the river Öxará and subsequent erosion of the river banks. In **Jelling** (2) the greatest concern has been the effect of acid rain on the rune stones. This problem has now been resolved with a covering protecting the stones. At **Hedeby and Danevirke** (4) the main cause for concern has been animal activity. Animal (game) tracks have caused erosion in places, and underwater in the Schlei, attack by shipworms has occurred in the past. The **Grobiņa burials and settlements (5)** are subject to overall climate change. The *Priediens burial site* (5.4) was created on sandy ground, therefore if the turf layer is lost, as seen in previous years, the site can be eroded by wind and rain. The main environmental pressure at the **Hyllestad quernstone quarries** (7) is the overgrowth of the sites with vegetation because of decreased grazing of livestock. None of sites are very exposed to the effects of climate change.

TABLE 41. *Factors affecting Viking Age Sites in Northern Europe.*

Factors	No. of component parts affected	Þingvellir	Jelling	The Trelleborg fortresses	Hedeby and Danevirke	The Grobiņa burials and settlements	The Vestfold ship burials	The Hyllestad quernstone quarries
Development pressures	5		X	X	X	X	X	
Encroachment	4		X		X	X	X	
Adaptation	2			X	X			
Agriculture	4		X		X	X	X	
Mining	1				X			
Environment pressures	5	X	X			X		X
Pollution	2		X					
Erosion	2	X						
Overgrowth	2				X			X
Climate change	2					X		
Natural disasters and risk preparedness	2	X						X
Earthquakes	1	X						
Floods	3	X				X		X
Visitor pressure	> 900,000	4-500,000	125,000	100,000	156,000**	unknown	80-90,000	920*

*In Millstone Park; the number of visitors to the open outdoor area is unknown.
** In the museums; the number of visitors to the total monument area is unknown.

(III) NATURAL DISASTERS AND RISK PREPAREDNESS

At **Jelling** (2), the **Trelleborg fortresses** (3), **Hedeby and Danevirke** (4), the **Grobiņa burials and settlements** (5) and the **Vestfold ship burials** (6) there is minimal to zero risk of natural disasters. Two main natural disasters are possible and even probable at **Þingvellir** (1), earthquakes and flooding of the river Öxará. Þingvellir was and is constantly being formed by earthquakes and the land subsidence that results from them. This also has an effect on the flow of the river. Although park authorities monitor major changes in river flow and will attempt to prevent the river from destroying sites of cultural importance, it is extremely difficult to hinder run-off rivers and impossible to respond to the land sinking. At the **Hyllestad quernstone quarries** (7) there is a risk of flood waves as a result of rock slides into the sea, specifically at *Rønset* (7.3).

(IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

Visitor pressure at the component parts of the nominated property varies greatly.

Þingvellir (1) has around 500,000 visitors each year and the numbers keep increasing. Paths and walkways and other means of decreasing the impact of tourists walking on the site are constantly monitored and plans are being made to improve facilities even further.

Jelling (2) is partially integrated into the town of Jelling, and the church and churchyard form part of the monument while still being in use. It is estimated that the site is visited by approximately 100-125,000 tourists per year with around 35,000 people visiting the museum. The number of visitors is expected to grow in the coming years. Measures are being taken to accommodate larger numbers by providing better parking places and pathways around the site.

The **Trelleborg fortresses** (3) each receive around 20-30,000 visitors per year. The public has full access to the sites. A museum is located at *Trelleborg* (3.3) and a small exhibition building at Aggersborg (3.1). The sites are regularly monitored to control wear and tear.

The number of visitors at **Hedeby and Danevirke** (4) is not known as the monuments are very extensive and accessible; however, the museums Viking Museum Hedeby and Danevirke Museum together receive around 160,000 visitors per year. Footpaths on and around the monuments are monitored and visitors are led through the site by means of signposts and barriers.

The number of visitors to the **Grobiņa burials and settlements** (5) is not known but not thought to be very high. The sites most visited are known to be the hillfort, the Medieval castle and the Priediens burial ground. Work on a tourism development plan is ongoing.

It is estimated that the **Vestfold ship burials** (6) receive between 80,000 and 90,000 visitors per year. All the sites are open to the general public and will continue to be so. Increased monitoring is planned since the number of visitors is likely to increase if the sites are given World Heritage status.

The number of visitors to the **Hyllestad quernstone quarries** (7) is low. In 2011, just under 1000 people visited Millstone Park during the summer season. Millstone Park will be further developed as a central element in communication with the public, thereby protecting other more vulnerable parts of the site.

(V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

TABLE 42. *Number of inhabitants.*

Component part	Name of component part	Population living in nominated area	Population living in buffer zone	Total population	Year
1	Þingvellir	0	2	2	2013
2	Jelling	56	329	385	2012
3	The Trelleborg fortresses	0	36	36	2012
4	Hedeby and Danevirke	0	~1000	~1000	2013
5	The Grobiņa burials and settlements	0	350-400	350-400	2011
6	The Vestfold ship burials	0	340	340	2010
7	The Hyllestad quernstone quarries	0	500	500	2011
	Total:	56	~2600	~2700	

ÞINGVELLIR (1)

I) DEVELOPMENT PRESSURES

Within the site are no plans for buildings other than those directly intended for the national park and its visitors. Until 2009, the hotel Valhöll stood on the southernmost edge of the assembly site. The hotel burned to the ground on 10th July 2009 and a decision on the future use of the plot has yet to be taken. A public debate on plans and services for visitors on the plot, and also in the national park as a whole, commenced in the aftermath of the fire. As a consequence, the Þingvellir Park Committee initiated a call for ideas for future planning for the national park. The call for ideas was based on the principles set forth in the National Park Management Plan 2004-2024.

The Þingvellir Commission and the municipal authority have the power to forbid new housing or developments within Þingvellir National Park boundaries as well as within the buffer zone. The Þingvellir Commission is empowered to initiate new developments, as long as they do not conflict with protection legislation and the wishes of the local authority. All the archaeological remains within park boundaries have been recorded under the National Heritage Act and are thereby protected by law. They must not be touched without prior permission from the Archaeological Preservation Agency, which serves to protect the remains against new construction. Nonetheless, vigilance is required so that small-scale improvements possibly needed to protect ruins in the innermost assembly site do not damage important archaeological remains. There are plans to improve parking areas, construct new car parks and improve other facilities for receiving tourists, such as footpaths, signs etc. These improvements will be carried out in consultation with the Archaeological Preservation Agency as the responsible authority. Before these projects are undertaken, plans will be drawn up for acceptance by the Archaeological Preservation Agency and Bláskógabyggð Municipality.

Holiday cabins

Within the buffer zone, private parties own holiday cabins under a property contract with the Þingvellir Commission, for a ten-year period. According to the management plan the zones cannot become any more inconsistent with their surroundings than is now the case; no further building shall be permitted in these zones, nor enlargement of cabins. The policy shall be pursued that when summer cabins are offered for sale the national park shall exercise its pre-emptive right to purchase, and shall take over plots when leases expire, initially, the main emphasis is to be placed upon the Gjábakki zone. This is dependent on financial and budgetary issues at any given time. A site plan approved by the Þingvellir Commission is available, which applies to all tracts of land within the national park with holiday cabins.

Forestry

Conifers have been planted at various places in Þingvellir National Park. The first planting was done in 1899, with the resulting Pine Grove now being considered a pioneering experiment by Icelandic foresters in growing conifers. Conifer trees have been cut down within the nominated area during the last ten years to safeguard archaeological ruins.

II) ENVIRONMENTAL PRESSURES

The sole environmental pressure at Þingvellir is erosion and encroachment by the river Öxará where the main ruins are located. The river Öxará has sometimes flooded the flat areas, and cut out its banks at many points. During research in 2002, remains of an old ruin appeared which extended out into the river. A run-off river, Öxará is difficult to obstruct or keep within definite banks, since the nature of run-off rivers is varying flow and erosive power, causing migration of the channel. According to ancient sources, Öxará was diverted into the fissure of Almannagjá and down onto the flats of Þingvellir in order to channel water to the assembly site. Consequently, its encroachment was caused by humans and is the first known diversion of water in Iceland.

Climate change is not considered to have consequences for Þingvellir.

III) NATURAL DISASTERS AND RISK PREPAREDNESS

Apart from the environmental pressure on the flat land extending from the **Öxará** river, the appearance of Þingvellir stems from natural disasters or earthquakes in the area during the last 9-10,000 years. Fissures and cracks form and land subsides when a series of earthquakes occurs. Since the Althing was founded at Þingvellir, this subsidence can be calculated to have amounted to almost 4 m, meaning that the flat stretches east of Almannagjá have subsided by the same amount since then.

In the summer of 2000, two powerful earthquakes shook south Iceland, upon which rocks fell from the fissure walls at two places in Hestagjá and small rocks fell in Almannagjá. In May 2008, two earthquakes struck the region south of Þingvellir, causing rocks to fall from the rock faces in some places. No land subsidence was recorded at that time.

The Öxará has modified the appearance of the assembly site with sediment, while subsidence of the ground has caused water to encroach upon the innermost assembly site. Encroaching water and subsiding land directly affected assembly activities. It is thought that Þingvellir church was moved to its present location in the 16th century and the site for court sessions transferred in 1594, when it had become isolated on an islet in the Öxará. When land sank in 1789, some of the hayfield at Þingvellir was submerged. Fissures also opened up in and around the field so that livestock were endangered. At Vatnskot, near the centre of the caldera, the ground subsidence measured some 2.5 m in 1789, and a major portion of the hayfield was submerged. Moreover, the public thoroughfare over the mouth of Öxará river and along Hallurinn was also flooded. Thereafter, assembly sessions were discontinued at Þingvellir and transferred to Reykjavík.

There was an attempt in 1921 to dam the most westerly channel of the Öxará river in order to protect assembly remains on the west bank of the river. This is the only action taken to reduce the pressure from water on objects of interest associated with the assembly.

Land will continue to subside at Þingvellir, leading predictably to encroachment onto the banks by water and the river. Although park authorities monitor major changes in river flow and will attempt to prevent the river from destroying archaeological sites, it is extremely difficult to hinder run-off rivers, as mentioned previously, and impossible to respond to the land sinking. The most significant mitigation measure to prevent the loss of evidence on the assembly grounds is therefore to map the areas where there are ruins, as has already been done, in addition to excavating or investigating more precisely the sites of ruins thought to be interesting. That should be done by the methods found to be best suited in each instance, with the object of disturbing the appearance of Þingvellir as little as possible.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

The World Heritage Property Þingvellir National Park has visitor numbers of 4-500,000 every year. By far the greatest proportion of these pass through the innermost assembly site, now nominated as part of the serial nomination *Viking Age Sites in Northern Europe*, creating the heaviest tourist pressure there. This area is 51,4 ha in size. A study carried out for the Þingvellir Commission revealed data on the composition, mode of travel and various other aspects regarding Icelandic and foreign visitors to Þingvellir in 2001. The study showed that 67% of foreign visitors to Iceland in the summer (June-August) of 2001 went to Þingvellir and 57% of tourists at other times of the year. An estimated 290,000 people visited Þingvellir in 2001, just less than 90,000 Icelanders and around 200,000 people from abroad, on a total of 410,000 occasions. In a comparative survey on the value of outdoor leisure areas among residents of the Greater Reykjavík Area, Þingvellir achieved a high and unequivocal rating despite being further away than all the other areas in the comparison. Þingvellir is a stopping point on the so-called "Golden Circle", which is one of the very most travelled tourism routes in Iceland: a ten-hour round-trip offered daily from Reykjavík.

Visitors were counted for 15 days in late July and beginning of August of 2010 as they were walking up or down the Almannagjá fissure. About 35,000 visitors were counted during these 15 days from 9 am to 4 pm. This count did not include weekends.

Visitors to the nominated area and Þingvellir National Park can be roughly divided into four groups, including those who come as follows:

- on their own on day trips, mainly from the capital area
- on organised group trips
- for the weekend
- due to special interests

Day-trippers, who include foreign tourists in rental cars, Icelandic families and Icelanders bringing foreign guests, go to Þingvellir to experience the history and nature of the site.

According to figures from the Icelandic Tourist Board, the proportion of travellers on organised group trips is around 35%. Groups organised by tourism businesses do not make long stopovers at Þingvellir. The estimated average stay of visitors on organised group trips lasts between 30 and 40 minutes.

Þingvellir is known as a place to spend the weekend. The campsite is open from 1st June to 31st August every summer. Numbers of weekend guests gradually increase until the end of June, peaking in the first weekend of August (a bank holiday), then gradually diminish.

One of the largest groups prompted by special interests comprises anglers, who arrive to fish in lake Þingvallavatn inside the national park. The Information and Service Centre sells angling permits and park personnel supervise fishing. The fishing season is from 1st May to 15th September. Whereas 2950 angling permits were sold inside the national

park in 2001, it is probable that there was a greater number of anglers, since senior citizens, the disabled and children accompanied by their parents are allowed to fish for free. For centuries, Þingvellir has been a customary rest stop for those travelling around Iceland on horseback. There are good facilities for equestrians at Skógarhólar, located on the periphery of the national park. Although two bridle paths lead through the national park, riding horses through the assembly site is prohibited. A rough but likely estimate is that some 2000-3000 horses stay at Skógarhólar each summer, where most of them remain for only one night. After a policy on planning was established, as approved by the Þingvellir Commission in 1988, tourist access was dramatically improved from what it had been previously. A footbridge and platform were built in 1990, with the footbridge reducing pressure on Lögberg, where substantial deterioration was evident. This measure marked the beginning of the construction of a system of footpaths through the innermost assembly site so as to protect it from encroachment by tourists, while at the same time improving access. Following the recording of remains in 1986-1992, it became possible to engage in still more effective measures towards improvement of the innermost assembly site, organising the area to protect points of interest by building attractive footways, such that tourist traffic was directed past the ruins, rather than over them.

As paths and other connections within the area have become more numerous, tourists have shown much greater care for it. Because the paths and walkways are wide and clearly delineated, the routes for tourists are clear. Encroachment onto this area is closely monitored, constantly looking for techniques of improving tourist access and decreasing tourist impact on the innermost assembly site. Park authorities give a high priority to informing tourists arriving at Þingvellir about the culture and nature of the area, and to do so without spoiling the innermost assembly site and the unique atmosphere that reigns there. Man-made structures are to be kept away from the innermost assembly site and to be built at points concealed from it.

V) NUMBER OF INHABITANTS WITHIN THE COMPONENT PART AND THE BUFFER ZONE

There are no permanent inhabitants within the nominated property. Within the buffer zone, two people live on two separate farms. There are also 84 holiday houses with a special lease from the national park. The holiday houses are subject to a specific building code and rules set by the national park (see Table 4.2).

JELLING (2)

I) DEVELOPMENT PRESSURES

Jelling is situated partly in the open landscape and partly in the town of Jelling. During recent decades there have been efforts to reveal the monuments by gradually removing the buildings and roads near the mounds and the graveyard with the rune stones. This development has culminated in Local Plan 1150 and its realisation. Development was accelerated by discovery of the palisade area and recognition of the significance of this. The recent planning of the Jelling complex was therefore optimised for its World Heritage value and there is no immediate development pressure.

II) ENVIRONMENTAL PRESSURE

Jelling is situated high above sea level with no rivers nearby.

Agriculture has done some damage to the remains of the palisade and the buildings, but the entire area inside the palisade is now totally protected from disturbance and damage due to expropriation of the affected areas according to Local Plan 1150. Traffic has been a very great concern in the monument area, since heavy traffic has been a recurring feature of the main road through Jelling which runs directly adjacent to and across the southwestern part of the monument area. The removal of the main road was carried out under archaeological supervision in 2013 and will greatly improve the preservation and conservation of the Jelling complex.

The weather naturally inflicts wear and tear on the monuments, but such factors are individually handled. The rune stones were of the greatest concern regarding their state of preservation. Scientific analyses have revealed that the last 100 years have had a serious effect (Trudsø et al. 2008). Due to the use of fossil fuels, acid rain has speeded up the process of attrition, necessitating active conservation and preservation initiatives. To address this problem – as recommended by *the ICOMOS Advisory Mission Report on the Jelling Mounds, Runic Stones and Church (Denmark) (697), 15 November 2008* – covers were established over the rune stones in 2011.

Climate change is not considered to have consequences for the Jelling complex.

Larval activity can damage the natural grass cover on the mounds, thereby exposing some areas and increasing the risk of soil erosion. When these attacks occur, they are handled immediately by the staff at Jelling church.

TABLE 4.3 *Factors affecting the component part of Jelling.*

	Natural damage				Developmental pressures		Other
	Erosion	*Temperature*	*Water/rain*	*Flora/fauna*	*Agriculture*	*Tourism*	*Vandalism*
Rune stones							
High							
Moderate		X				X	X
Low			X				
Minimal	X			X	X		
Mounds							
High							
Moderate				X		X	
Low	X		X				X
Minimal		X			X		
Palisade							
High							
Moderate							
Low				X		X	
Minimal	X	X	X		X		X
Church							
High							
Moderate						X	X
Low			X				
Minimal	X	X		X	X		
Stone setting							
High							
Moderate							
Low							
Minimal	X	X	X	X	X	X	X

III) NATURAL DISASTERS AND RISK PREPAREDNESS

Not relevant.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

Jelling is partly integrated into the town of Jelling, partly in the open landscape, and the church and the graveyard form part of the monument. The monument – with the exception of the church and the exhibition in the museum Royal Jelling – is open to the public throughout the year. It is therefore difficult to distinguish tourists from citizens of the town and visitors to the church and the graveyard. Furthermore, part of the monument is integrated into the infrastructure of the town catering for pedestrians and cyclists.

The church and graveyard area function as a normal Danish church and therefore require daily maintenance. But attention is also required to ensure that both users of this place of religious assembly and people visiting the monuments and the Jelling complex are all able to use the area in a way that meets their needs.

It is estimated that the monument area is at present visited by approximately 100-125,000 tourists annually. In 2012, 34-35,000 people visited the museum Royal Jelling, and approximately 50 groups of various sizes booked guided tours to the church. The number of visitors is an estimation based on information from Royal Jelling.

According to Local Plan 1150, increased parking capacity has been established outside the monument area, and paved paths for pedestrians and cyclist have been established to counter the increased number of visitors and local users. The monument area in the open land and around the church is monitored daily by church staff, whereas the monument area in the town is monitored by the local municipal authorities. Consequently, maintenance will be undertaken immediately if necessary.

Table 4.3 below presents an assessment of the factors affecting the component part and the challenges for each of the three sub-areas, including the buffer zone.

V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

See Table 4.2.

THE TRELLEBORG FORTRESSES (3)

I) DEVELOPMENT PRESSURES

The ring fortresses Aggersborg (3.1), Fyrkat (3.2) and Trelleborg (3.3) are situated in the open countryside and are not affected by urban or forest-related development.

Aggersborg (3.1)

The site is well protected by various registered protection orders and is, consequently, not threatened by agriculture or similar activities. The existing municipal plan does not indicate conflicts regarding land-use designation.

There are no plans to extend the existing road which runs along the eastern part of the ditch.

In the Aggersborggård area, a small part of the site with the subsoil remains of the ditch is used as garden and a vehicle access route with wheel tracks. The process of scheduling and protecting these remains according to the Museum Act is ongoing.

Fyrkat (3.2)

The site is well protected by various registered protection orders and is, consequently, not threatened by agriculture or similar activities. The existing municipal plan does not indicate conflicts regarding land-use designation.

There are plans to establish a museum and interpretation centre in the vicinity of the site – outside the site itself and the scheduled area, but within the buffer zone. The museum is planned to be situated inside existing building stock.

The nature-rehabilitation project *Fyrkat Engsø* which is located to the north and east of the Fyrkat fortress has recreated a large part of the Onsild river valley. This is a development which is seen as having a positive impact on the World Heritage value.

Trelleborg (3.3)

The site is well protected by various registered protection orders and is, consequently, not threatened by agriculture or similar activities. The existing municipal plan does not indicate conflicts regarding land-use designation.

In 2013, the accessibility was changed in order to establish a more authentic entrance to the fortress. This is considered as having a positive impact on the World Heritage value.

II) ENVIRONMENTAL PRESSURES

The areas hosting the three fortresses lie several metres above sea level. Aggersborg is situated on a low coastal cliff along the Limfjord. Fyrkat is situated on a plateau in the Onsild river valley, and the water level is controlled by the nature-rehabilitation project *Fyrkat Engsø*. A high groundwater level inside the fortress has no negative effect on the preservation of the site, but has a certain impact on the modern marking of the postholes. Climate change is not considered to have consequences for Aggersborg and Fyrkat. At Trelleborg, two small rivers run along the plateau without any impact on the site as the water level is controlled. Climate change might have influence on the water level in the small rivers. If so, precautions will be taken.

III) NATURAL DISASTERS AND RISK-PREPAREDNESS

None.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

The public has full access throughout the year to the areas hosting the three fortresses – with the exception of the private Aggersborggård area.

At Aggersborg, the number of visitors is recorded by counter as 23,000 per year, but the actual number is somewhat higher as it is possible for the public – mostly local people – to enter the area without registering on the counter. Consequently, the real number is estimated to be 30,000 annually. This figure has been constant for ten years. At present there is no wear and tear on the monument and the Danish Nature Agency, which maintains the monument, expects no further maintenance problems arising from an increased number of visitors; visitor numbers may rise to 40,000 following inscription. The number of visitors to the small unmanned exhibition building is unknown.

The area hosting Fyrkat is open to the public throughout the year. Furthermore, Fyrkat is included in a river valley path system. The number of visitors is recorded by counter as 20-25,000 annually. Because of events arranged around the reconstructed Trelleborg house, and other entrances, the number is uncertain, but this is the best estimate. According to the plans for a new museum at the entrance to the monument area, the number of visitors after inscription is estimated at 30-40,000 annually. A new model for maintenance of the monument was established in 2012, following restoration of the marking of the postholes, and is expected to meet the needs of the increased number of visitors.

Trelleborg Museum, with access to the fortress, has 30,000 visitors every year, but when the museum is closed the public have free access to the area. The museum is closed during the winter time, and the total number of visitors is estimated to be 40,000 annually. There is a tradition once a year of holding a Viking market. This is an event, where "Viking re-enactors" meet for a week. According to the plans for the area, Slagelse Municipality estimates visitor numbers of 60,000 annually after inscription. No problems of maintenance are expected as a consequence of this increased number of visitors.

None of the fortresses give the public the opportunity to pass through the areas – the exits also serve as the entrances. The areas are only used by the public for recreation to a lesser extent.

It is likely that the number of visitors will increase following inscription of the three ring fortresses by c. 25-35%. The management plans take the increasing number of visitors into account by focusing on monitoring of the areas in order to identify wear and tear and maintain the areas as needed.

At Aggersborg it is estimated that parking capacity and other public facilities are adequate. At Fyrkat the planned museum will take the new situation into account and at Trelleborg parking and public facilities at the museum are estimated to be adequate.

V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

See Table 4.2.

HEDEBY AND DANEVIRKE (4)

I) DEVELOPMENT PRESSURES

Since the time when Danevirke and Hedeby lost their original functions, the main factors affecting the archaeological monuments and the areas surrounding them have been the building of settlements, the extraction of raw materials, the expansion of agricultural production facilities, the infrastructure (roads, railway), military use and

last, but not least, agriculture. Nowadays, land use poses a potential threat to their integrity on less than 12% of the area covered by the monuments. These various uses are to be discontinued step by step within the framework of the implementation of the site management plan.

The nominated property is not endangered by residential development within its boundaries. The expansion of housing areas within or close to the buffer zone poses a potential threat from outside the property. At present, one extension to building zones is planned next to the buffer zone for the Danevirke. Another one has recently been granted approval for the municipality of Busdorf. To this end, the restriction of visibility and the ability to experience the monuments is being minimised. The municipalities will forego future expansion of building development in the buffer zone of the monuments. Supplementary to the legally foreseen control of current planning, an overall concept for monument-compatible planning is being generated within the framework of the Management Plan for Hedeby and Danevirke. Future extensions to residential and industrial development in these communities capable of adversely affecting the monuments are to be banned in the course of this process by wide-ranging revaluation of the land-use plans for the municipalities.

The nominated component part is mainly used for tourism and recreational purposes. Within the buffer zone there are numerous agricultural businesses whose economic existence has to be safeguarded for the time being. Their extension poses a potential threat from outside the nominated property. They are potentially able to obscure the visibility of parts of the monuments or impair the visibility of the landscape from parts of the monuments. Schemes for their structural upgrading are only licensable under conditions ruling the adequate minimisation of possible impairment to the monuments.

Wind energy plants (wind farms) pose a potential threat to the nominated property from outside the nominated property. All the large existing wind energy plants for generating electricity are located beyond the buffer zone at a distance of more than 4.5 km from the nominated property. The designation of further land for wind energy at a distance of less than 5 km is not envisaged on account of the considerable visual impairment of the perception of the monuments and their setting.

Crop production poses a current threat to the nominated property from inside and a potential threat from outside the nominated property.

Some areas of the nominated property are still used for crop production. Within the scope of the management plan it is envisaged converting all of these areas into grassland for extensive grazing. Inside the buffer zone of Hedeby and Danevirke most of the areas lie outside built-up areas and are used for agriculture, this having only a minor impact on the monuments. An increasing amount of land for grazing within the buffer zone is currently being converted into land for crop production for anaerobic digestion facilities with possible negative impacts on the monuments. Possible extant repercussions on the remains and the ways in which visitors can experience the monuments will henceforth be minimised by creating, in the intermediate term, a protective strip between the nominated property and those areas that are used intensively for agriculture.

Gravel extraction poses a current threat from outside the nominated property. Parts of the landscape surrounding the monuments have been dug down into by as much as several metres during the process of extracting mineral resources; these features are identifiable today as water-filled pits, hollows in the terrain and a relief now more pronounced than originally. In the wider surroundings of the monuments, large-scale gravel extraction is still taking place. Today, this development could be halted within the buffer zone and in the adjoining surroundings so that, in a few places, older, smaller extraction operations could be brought to a halt. New licences will no longer be issued in the area of the buffer zone. The old gravel-extraction areas are no longer being back-filled, leaving visible pits as evidence of recent landscape history.

Military training facilities pose a potential threat from both inside and outside the nominated property. The military aerodrome Jagel encloses a long stretch of the Kovirke. The ongoing airport operations have no negative impact on the remains of the monument. As the current operator, the military district administration has given assurance that no measures detrimental to the monuments will be conducted. The airplane hangars being built on the land at present do not interfere with the extant remains and have only a minor effect on visibility. In the future, monument protection has to be balanced with national defence interests.

II) ENVIRONMENTAL PRESSURES

Conditions for preservation of organic material in the ground are still good and measures for regulating the wa-

FIGURE 4.5 *Maize production around the Main Wall.* ©*Michael Lang.*

ter level seem to pose only a minor threat to material such as timber through desiccation. Frost poses a current threat from inside the nominated property.

Animals pose a potential threat from inside the nominated property. Animal (game) tracks constitute points of attack for erosion and are seen almost everywhere to a limited extent. In addition to these, bioturbation caused by rabbit warrens can also be observed in some places. At the so-called Offshore Work in the Schlei at Reesholm, examination of the timbers lying under water and in the sediments led to the first, and to date only, attack by shipworm (*Teredo navalis*) being ascertained. Conditions in the brackish waters of the Schlei do not, however, provide favourable living conditions for this mollusc at present and the timber structures are therefore not in acute danger. Nevertheless, potential mollusc activity is being monitored.

Specific plants pose a current threat from inside the nominated property. Plant cover, controlled through regular maintenance, assists in stabilising the monuments and increases their resistance to erosion. Damage is only likely in isolated cases as, for instance, by the reed beds in Hedeby which have the potential to damage the archaeological layers. These are, however, gradually being removed.

Climate change is not considered to have consequences for Danevirke and Hedeby.

III) NATURAL DISASTERS AND RISK PREPAREDNESS

Natural disasters do not pose any relevant threat to the monuments.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

Visitors to the monuments pose a potential threat to from inside the nominated property. Access also has a current positive effect on awareness of the monuments.

Some parts of the wall system are accessible for visitors by way of footpaths with a soil or grass surface on the structures. These allow the visitor to experience the ramparts and their huge dimensions directly. They also assist in improving the perception of these historical structures and in increasing the visitor's appreciation of their value and their conservation.

Visitors to the monuments concentrate around Viking Museum Hedeby (146,000 visitors in 2011) and Danevirke Museum (16,000 visitors in 2009). According to a study from 2010, an increase in visitor numbers of 20-30% at these main attractions is envisaged as a result of a World Heritage inscription. The number of people visiting the other parts of the monuments is small at present and is also expected to increase by 20-30%. No figures are available for the latter as the monuments are very extensive and freely accessible. Mainly locals use these areas.

FIGURE 4.6 *Footpath on the Connection Wall near Hedeby.* ©*Evi Krebs-Hoffmann, Archäologisches Landesamt Schleswig-Holstein.*

The carrying capacity of the monuments is determined by the erosion along the footpaths. The museums and their open-air areas within the nominated property are constructed to accommodate c. 150,000 visitors annually in Hedeby and c. 50,000 visitors annually at Danevirke Museum. In the vicinity of the museums, slight erosive effects can be monitored on the ramparts where the grass surface of footpaths is eroded away due to visitor impact. In the future, improved resilience of these tracks will help to limit the threat to an acceptable degree. At the moment, new types of step constructions reduce the risk of erosion on the monuments. Undesirable uses are restricted and regulated by means of barriers and unambiguous signage. Plans for a major renovation of Danevirke Museum and its exhibition are currently in the making. These will enhance the museum's carrying capacity significantly. Visitation and its impact on the monuments are managed within the framework of the site management plan.

V) NUMBER OF INHABITANTS WITHIN THE COMPONENT PART AND THE BUFFER ZONE

See Table 4.2.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

I) DEVELOPMENT PRESSURES

The Grobiņa archaeological complex is partially (with the exception of the Atkalni and Porāni burial sites) situated with an urbanised area surrounding it, or in individual cases (Skabārža kalns settlement), actually covering it. The territory of the Smukumi and Atkalni flat-grave burial sites is used for agricultural purposes (pasture in Smukumi, arable land in Atkalni), while the area of the Porāni burial site is used for forestry. The territory of the Prie-

diens burial site is used as pasture and to a small extent also for horse riding. These influences were identified long ago and their impact on the preservation of the Grobiņa archaeological complex has been minimised.

II) ENVIRONMENTAL PRESSURES

The Grobiņa archaeological complex is subject to overall climate change. The Priediens burial site was created on sandy ground, therefore if the turf layer is lost, as seen in previous years, the site can be eroded by wind and rain.

III) NATURAL DISASTERS AND RISK PREPAREDNESS

Not relevant.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

The Grobiņa burials and settlements have so far been largely spared the consequences of excessive visitor activity and human impact. This is due to the separate location of the component parts well as the ownership factor. Out of the six sites included in the nomination, only two are owned by the local municipality. Consequently, there has not been explicit tourism flow to the sites in private ownership. There are more visits to the sites located in the town of Grobiņa, especially the hillfort and Medieval castle.

At the moment, the Grobiņa tourism Development Plan 2012-2017 is under production. This includes various activities for the creation of a systematic and coordinated tourism system and attractive infrastructure, as well as competitive tourism objects, services and products. According to the tourism plan, a tourist information centre and/or tourism information points will be established in the region in the near future. One of the tasks of this tourist information centre will be to record the number of tourists visiting these sites, although these numbers will not reflect the real situation, as it is impossible to count those tourists who do not use the information centre.

Since there are no statistical data, estimates have been arrived at using sites where the tourism flow is recorded, in order to obtain at least an approximate number of visitors. For example, the memorial rooms for Latvian writer Zenta Mauriņa, located in the town of Grobiņa, attract up to 4000-5000 visitors a year. The cultural and sports events organised by the local municipality are attended by 20,000 tourists each year. Taking into consideration the close proximity of the town of Grobiņa to the sites and its surrounding areas, it is obvious that most of the visitors will also include visits to the nomination sites, especially the hillfort, the Medieval castle and the Priediena burial ground, in their itineraries.

One of the major tasks is to maintain the areas – cut the grass, create tourist paths in order to reduce impact on more sensitive aspects. It is necessary to create the elements which limit the negative effects of tourists – paths, footbridges, stairs and demarcations.

It is planned to train special guides for the sites in order to organise and plan the tourist flow and, at the same time, give comprehensive information about the significance of the sites to ensure a positive experience of the historic values. In order to protect the most fragile sites in the component part, the municipality plans to organise most of the tourism-related activities outside these sites.

In the summer of 2011, the local government received financial support from the State Inspection for Heritage Protection of Latvia with the objective of preparing and installing informative signs in Latvian and English at the six cultural monuments included in the World Heritage nomination. Initially, these informative signs will contain the name of the site and a short description. Parallel to this, work is underway to prepare additional informative materials. In active cooperation with students of the History and Philosophy Faculty of the University of Latvia, work is currently being done on the concept of interpretation and promotion of the Grobiņa archaeological monuments. As a result of this, it is expected that the informative signs will be supplemented with educational information for all visitors to these sites. The conclusions of the concept will be used in drawing up the management plan for the archaeological complex included in this nomination.

Another important activity is the intended creation of a cooperation network between owners of the nominated sites. Since most of the sites are privately owned, there are number of issues to be discussed concerning their physical management and improvement.

The Preservation and Development Cooperation Council of Grobiņa Region Archaeological Heritage has been created and already started its work. One of the council's tasks is to facilitate scientific research and popularisation, to support activities raising awareness among owners and to promote international recognition of the site.

V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

The territories of the Priediens, Atkalni, Smukumi and Porāni (Pūrāni) burial sites are not inhabited, and in their closest buffer zones, there are only individual farmsteads in rural areas or single-family houses in the town of Grobiņa. The area of Grobiņa Medieval castle is also uninhabited, but in its buffer zone there are some low-storey (up to three storeys high) apartment blocks. The area of Skabārž kalns hillfort itself is not inhabited, but the area of the ancient settlement is covered with single-family houses and some municipal buildings (a kindergarten). In the buffer zone for the monument there are mostly single-family houses and a few low-storey apartment blocks.

The total number of inhabitants in the territories of the monuments and their buffer zones is 350-400, of which 80-90% live in the town of Grobiņa (see Table 4.2).

THE VESTFOLD SHIP BURIALS (6)

I) DEVELOPMENT PRESSURES

The Gokstad, Oseberg and Borre mounds are situated in urban municipalities in central Østlandet with a growing population. Development pressures, resulting from increased demands for buildings for residential and leisure purposes, and for trade and industry, pose a general challenge to the surroundings of all three nominated areas and their buffer zones. The same applies to building developments related to the construction of roads and railways and measures to ensure electricity and energy supplies. However, means to prevent development close to the sites have been taken through the newly-adopted *Vestfold Regional plan for sustainable area politics* and the classification of the sites and their surrounding as "cultural environments", a status which protects the areas from future urban and infrastructural developments.

Borre (6.1)

The existing municipal master plan does not indicate any conflicts regarding land-use designation which will affect the Borre mounds as cultural heritage.

Oseberg (6.2)

The area is primarily affected by measures related to agriculture and operational development and change.

Gokstad (6.3)

The areas around the Gokstad mound are to some extent vulnerable to development pressures but the *Vestfold Regional plan for sustainable area planning* applies.

Impact of forestry and agriculture

The most important strategy in maintaining the open landscape is the retention of viable agriculture which can maintain the landscape and the cultural environment. Agricultural machinery is heavier than previously and can play a role in harming the cultural heritage in the ground.

Despite possible negative effects, the maintenance of agriculture is seen today as the most important strategy for safeguarding World Heritage values in the nominated area. Geo-physical surveys can reveal traces and structures under the surface. Information about the preservation and destruction of archaeological material in the soil will be part of the *Gokstad Revitalised* project.

In areas designated for agricultural, natural and recreational purposes in the land-use part of the municipal master plan, a ban on building activities is primarily in force, but there are exemptions for the erection of buildings or for carrying out measures necessary for agricultural operations.

II) ENVIRONMENTAL PRESSURES

The climate of Vestfold is undergoing a process of change. It is getting warmer and precipitation is becoming more extreme while the sea level is rising. The projected sea-level rise will not affect World Heritage values in the nominated area.

In the Overall Plan for Borre Park emphasis has been put on maintaining the habitats of rare or threatened species such as hole-nesting birds, red-listed species of fungi and occurrences of the greater butterfly orchid (*Platanthera montana*).

III) NATURAL DISASTERS AND RISK PREPAREDNESS

In the report *Climate Change and Cultural Heritage in the Nordic Countries* (Tema Nord 2010: 590), the possible consequences of climate change for the cultural heritage and cultural environments in the Nordic area are assessed.

On the basis of the report, the conclusion can be drawn that the danger of serious natural catastrophes such as earthquakes, volcanic eruptions, floods/flood waves or landslides are assessed as non-existent or minimal for the property. Due to the robust nature of the mounds, the

TABLE 4.4 *Number of visitors to the Vestfold ship burials 2010.*

Vestfold ship burials	Cultural Rucksack programme	Other organised use children/adolescents	Registered/ paying	Estimated	Total
Borre mounds	1673	2000	0	50,000	53,600
Oseberg mound	0	1200	0	5000	6200
Gokstad mound	0	800	0	3000	3800
Midgard Historical Centre	(1673)	427	22,000		22,500
Total	**1600**	**4500**	**22,000**	**58,000**	**86,100**

TABLE 4.5 *Factors affecting the component part the Vestfold ship burials.*

	Natural damage			Development pressures			Other		
	Flood	*Fire*	*Trees blown down*	*Infra-structure*	*Business*	*Housing/ leisure buildings*	*Vegetation re-growth*	*Wear and tear*	*Vandalism*
Borre									
High							X		
Moderate			X					X	
Low	X	X			X	X			
Minimal				X					X
Oseberg									
High									
Moderate	X				X		X	X	
Low						X			
Minimal		X	X	X					X
Gokstad									
High				X					
Moderate							X	X	
Low					X	X			
Minimal	X	X	X						X

impact of extremes of weather such as storms or large amounts of precipitation locally is also assessed as small. The same applies to threats linked to natural phenomena such as lightning strikes and fire. Trees blown down in gales may constitute a problem if upended roots lead to the exposure of some of the soil layers in the mounds.

At the Oseberg mound, elevated water levels in nearby streams as a result of increased precipitation may affect the nominated area, in that parts of it may lie under water at times. However, this is regarded as an impact that will not affect the preservation of World Heritage values and is due to natural, seasonal fluctuations.

No risks of natural catastrophes have been identified that will threaten World Heritage values in the nominated property or buffer zones at any of the sites, therefore no separate risk preparedness plans have been drawn up for the nominated areas. However, these are included in the municipalities' emergency contingency plans.

IV) RESPONSIBLE VISITATION AT WORLD HERITAGE SITES

It is estimated that the Vestfold ship burials receive between 80,000 and 90,000 visitors every year, but the figures are somewhat uncertain. All the areas are open to the public throughout the year and are used for walking and recreation by the local population.

The figures for use through the Cultural Rucksack programme and organised visits from schools generally, as well as organised (guided) groups and paying visitors to the Midgard Historical Centre, are based on actual data. Other figures are based on assessments and estimates.

At the Borre mounds, experience has been gained of remedial measures for erosion damage linked to use. The Overall Plan for Borre Park states that erosion damage to the mounds as a result of use must be repaired continuously and will be an ongoing operational task.

The localisation and general assessment of vulnerability mean that there is no need for graduated access to the nominated area at each place. Policies such as open access, a general right of way and unrestricted use of the areas will be continued.

Other factors

Minor damage and vandalism have occurred but no damage has been experienced in recent years that has permanently or irreparably affected the value of the sites.

V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

See Table 4.2.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

I) DEVELOPMENT PRESSURES

The location of the nominated property in an outlying area means that it is situated outside areas of the municipality that are subject to development pressure. To a large extent this limits the potential threat scenario. Challenges in connection with development features and land-use designation in the quarry landscape are particularly linked to physical encroachments such as the building of houses, cabins/holiday homes and possibly industry in the form of the extraction of raw materials and the building of a mini hydro-electric power station. It is very likely that large numbers of quernstone quarries are covered by vegetation today, and are therefore not visible. These may come into conflict with further expansion and industrial development.

Development

The municipality of Hyllestad needs new settlement and therefore has a fairly liberal attitude to development within an agricultural, natural and recreational area (ANR area). All the nominated areas lie within an area defined by the municipality as an "ANR area with monuments and sites". Here, the occurrence of quernstone quarries is normative for land use. This reduces the likelihood that increased development will come into conflict with cultural heritage values in the nominated property.

Forestry

The nominated property is partly situated in an afforested area. Forestry is an industry with a large potential in Hyllestad and the general demand for timber is greater than can be met by the industry. Care must be exercised in any extraction of timber and forest roads must not be laid over quernstone quarries. Nevertheless, the establishment of forest roads may conflict with quernstone quarries that are covered with vegetation today, and are therefore neither visible nor known.

Mini hydro-electric power station

The present zoning plan for the municipality of Hyllestad opens up for the establishment of a mini hydro-electric

FIGURE 4.7 *Quarry with loose quernstones at Rønset.* ©*Kim Søderstrøm and Jørgen Magnus, Directorate for Cultural Heritage.*

power station in the river Myklebustelva in the vicinity of Millstone Park. The Norwegian Church Endowment/ Rectory owns the waterfall rights and is interested in development. The municipality is taking part in discussions with the Norwegian Church Endowment and Sunnfjord Energi AS.

Extraction of raw materials

Local players want to identify places where, in the future, it will be possible to extract raw materials for use in the production of souvenirs and larger products such as quernstones, millstones and stone crosses. Here, it will be crucial to find good deposits of garnet mica schist that have not been worked previously. This is absolutely feasible within the large deposits of garnet mica schist along Åfjorden.

II) ENVIRONMENTAL PRESSURES

A general problem for the property is the overgrowth of the entire area and the monuments and sites with vegetation. Today, this constitutes the greatest challenge to landscape and cultural heritage values. The keeping of livestock at Hyllestad has been substantially reduced in recent decades. A termination of agricultural operations and of grazing activities within the property will lead to an even greater extent of regrowth of the open area. Grazing land will again become covered with undergrowth and forest, which will make the cultural landscape less attractive and more difficult to move around in. Consequently, agricultural operations will be important for the preservation of World Heritage and cultural landscape values.

Climate change is not considered to have consequences for the Hyllestad quernstone quarries.

III) NATURAL DISASTERS AND RISK PREPAREDNESS

Sea-level rise

Sea-level rise and increased levels of flooding can result in negative impacts on only a few of the quarries. During the 21st century, the sea level along the coast of Western Norway is estimated to rise by approximately 70 cm (uncertainty linked to the calculations means that the sea level may be 20 cm lower or 35 cm higher than estimated). This means that a few quarries in the nominated area at Rønset that are situated closest to the sea, for example at Otringsneset, may lie under water. The sea level rise will not result in the destruction of the quarries themselves but saltwater in the spoil heaps may alter the conditions for preservation. This, in turn, may have a negative impact on any organic material present here.

Flood wave

On the basis of a report from the Norwegian Geotechnical Institute (NGI) dated 22nd October 1999, the shoreline at Rønset is defined as an area potentially exposed to the risk of local flood waves in connection with rockslides from the mountains Lifjellet and Katleneset, the latter located approximately 1 km southwest of Rønset. The shoreline at Rønset is therefore an area where a risk of natural damage may arise as set out in the act relating to protection against and compensation for natural damage (Act on Natural Damage). The municipality of Hyllestad therefore imposed a ban on building and other activities along the shoreline here on 15th February 2002. The risk limit for flood waves following rockslides from Lifjellet is estimated to be approximately 3-5 m above the average water level, while the corresponding estimate relative to a rockslide from Katleneset is 4-7.5 m.

A flood wave could lead to disturbance and movement of the quernstones in the sea in the vicinity of the shipment harbours. Loose stones on land could also be moved, but a flood wave would in all probability not have any impact on the quernstone quarries and the spoil heaps.

Rock fall

A certain risk of rock fall is documented to the northeast of the nominated area at Rønset. Rock fall refers to blocks of stones falling and should not be confused with rockslides. A larger area below the release zone may nevertheless be affected during a rock fall.

There may also be a possible risk of rock fall in the steep ground to the northeast of Myklebust, even though no such event has been documented there.

Additionally, in periods of extreme precipitation, there may be a potential risk of landslides at some spoil heaps.

Trees uprooted by the wind

The majority of the quarries are located in afforested areas and the uprooting of trees by the wind may lead to minor disturbances of the spoil heaps. However, the spoil heaps are generally deep and it is likely that only the upper parts would be disturbed if trees were uprooted by the wind or blown over in storms.

Biological decay

Regrowth of vegetation may render the quarries less visible. The increased growth of plants and trees in the production areas may also result in the roots splitting rocks. This is due to plants or trees taking root in cracks in rock and causing further fractures in the rock as they grow. Strong root growth in the spoil heaps can also lead to the disturbance of these.

iv) Responsible visitation at World Heritage Sites

The nominated property represents an outdoor cultural environment where visitors may walk without being supervised and monitored. Cultural monuments may thus be vulnerable to destruction as well as to littering of the area.

A large part of the cultural heritage in the production area consists of damaged quernstones, quernstone blocks and waste from cutting activities scattered around on the surface. This leads to the danger that these may be moved, taken away or stolen. The majority of the quarries are relatively easily accessible from the roadway and the distance from areas of settlement is such that there may be a risk of theft in some areas.

A large increase in the number of visitors may also lead to wear and tear to the quarry sites.

Millstone Park has been established within the nominated property at Myklebust to receive the public and was opened on 11th June 2002. While Millstone Park is well-suited to visits, other areas are more vulnerable to un-

regulated use. Millstone Park will therefore continue to be developed as a central element in communication with the public in order to channel visits to this area.

The number of visitors in the summer season for the five years from 2007 to 2011 is given in the table below:

TABLE 4.6 *Number of visitors to Millstone Park (Hyllestad quernstone quarries) in the summer season.*

Year	Number of visitors
2011	921
2010	676
2009	933
2008	563
2007	383

However, the park represents an open outdoor site where visitors are permitted all year round; in addition, a number of school classes, kindergartens and other groups have visited Millstone Park outside the summer season. Throughout the year, Millstone Park and the buildings there are also used as an arena for both public and private arrangements in which guided tours and the dissemination of the history of the quarries play a central role. These are not included in the above statistics.

V) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

All three nominated areas at Hyllestad are situated in outlying areas and are thereby outside the area of settlement at Hyllestad. Therefore there are no inhabitants in the nominated property.

In contrast, the buffer zone covers large parts of the municipality of Hyllestad with approximately 450-500 inhabitants. Public buildings and office buildings are located here, in addition to private houses (see Table 4.2).

PROTECTION AND MANAGEMENT OF THE PROPERTY

5

5

5

5.A
OWNERSHIP

TABLE 5.1 *Land ownership of the component parts of Viking Age Sites in Northern Europe.*

No.	COMPONENT PART	SITE	OWNER
1	**Þingvellir**		The Icelandic State.
2	**Jelling**		The monument area is mainly owned by the Jelling Parochial Church Council, the Deanery of Vejle, the Diocese of Haderslev and Vejle Municipality. Less than 10% of the course of the palisade and the palisade area is owned by private citizens in Jelling.
3	**The Trelleborg fortresses**		
3.1		Aggersborg	The site is owned by the Danish State (the Danish Nature Agency). The smaller Aggersborggård area is owned by Aggersborggård A/S.
3.2		Fyrkat	The site is owned by the Danish State (the National Museum of Denmark).
3.3		Trelleborg	The site is owned by the Danish State (the National Museum of Denmark).
4	**Hedeby and Danevirke**		Just about 66% of the component part is under public ownership, including the German Federation, the State of Schleswig-Holstein, the districts (Kreise), municipalities (Gemeinden) and state foundations as well as, but on a smaller scale, the church parishes and the Association of the Danish Minority. About 33% is in private ownership. Of the 134 private property owners, none possesses more than 3% of the area.
5	**The Grobiņa burials and settlements**		The component part is in a mixture of private and public ownership.
5.1		Porāni (Pūrāni) burial mound site	In private ownership.
5.2		Smukumi flat-grave burial site	In private ownership.
5.3		Grobiņa Medieval castle with bastions	The site is owned by Grobiņa Municipality.

TABLE 5.1

No.	COMPONENT PART	SITE	OWNER
5.4		Priediens burial mound site	The site is owned by the Evangelical Lutheran Church of Latvia.
5.5		Atkalni flat-grave burial site	In private ownership.
5.6		Grobiņa hillfort (Skabārža kalns)	The site is owned by Grobiņa Municipality.
6	**The Vestfold ship burials**		The component part has a mixture of private and public ownership. The Norwegian Church Endowment (*Opplysningsvesenets fond*) is registered as a main owner at Borre.
6.1		Borre	90% in public ownership, 10% in private.
6.2		Oseberg	11% in public ownership, 89% in private.
6.3		Gokstad	7% in public ownership, 93% in private.
7	**The Hyllestad quernstone quarries**		The bulk of the nominated property – approximately 94.5% (73 ha) – is in private ownership, divided among 14 different property owners. Only approximately 5.5% (4 ha) is in public ownership, with Hyllestad Municipality and the Norwegian Church Endowment registered as owners. Hyllestad Municipality owns most of Millstone Park, situated within the nominated area at Myklebust, while the Norwegian Church Endowment owns parts of the area furthest to the southeast and southwest, as well as a part to the extreme northwest of the nominated area at Myklebust.

5.B
PROTECTIVE DESIGNATION

Table 5.2 lists the protective designation, year of designation and the legislative acts under which the protective designation is provided. Additional information on the extent of designations and the reasons for the selection of buffer zone boundaries is dealt with in section 5.c. All the component parts of the nominated property are protected by designations as monuments, and by the spatial planning systems of their respective areas.

TABLE 5.2 *Protective designation*

No.	COMPONENT PART/SITE	PROTECTIVE DESIGNATION	YEAR OF DESIGNA-TION	LEGISLATIVE ACTS
1	**Þingvellir**			
		National Park	1930	Act on the Thingvellir National Park no. 47/2004 Regulation on Thingvellir National Park no. 848/2005
		Listed/protected historical site	1927	Heritage Act no. 80/2012 (originally under The Law on the Protection of Ancient Relics from 1907)
		Protected area under general legislation		Act on the Conservation of Lake Thingvallavatn and its Catchment Area no. 85 from 24th May 2005 The Nature Conservation Act no. 44/1999 with sub-sequent amendments The National Planning Act no. 123/2010
		World Heritage Property	2004	The World Heritage Convention
2	**Jelling**			
		Scheduled	1937	The Museum Act § 29e
		Listed in the Municipal Plan	2012	Planning Act, Local Plan 1150
		Protected (church)	1992	The Churches and Churchyards Consolidated Act
		building restriction zone		Act on Nature Conservation § 19
		Protection order on boundaries	1947	Protection order of 13th October 1947

TABLE 5.2

No.	COMPONENT PART/SITE	PROTECTIVE DESIGNATION	YEAR OF DESIGNATION	LEGISLATIVE ACTS
		World Heritage Property	1994	The World Heritage Convention
		Listed as an archaeological site of irreplaceable cultural importance	2003	No. 17.09.04-129
3	**The Trelleborg fortresses**			
3.1	**Aggersborg**	Scheduled	1966 1990	The Museum Act § 29e, Protection order of 4th September 1990
		Listed in the Municipal Plan	2009	Planning Act
		Listed as an archaeological site of irreplaceable cultural importance	2003	No. 100701-36
		Lies within the buffer zone	1937	Protection of the Nature Act's coastal protection zone in §§ 8 and 15
3.2	**Fyrkat**	Scheduled	1964	The Museum Act § 29e. Protection of Nature Act and the Environmental Objectives Act
		Listed in the Municipal Plan	2009	Planning Act
		Listed as an archaeological site of irreplaceable cultural importance	2003	No. 140707-80
		Protected by four registered protection orders	1965-2006	
3.3	**Trelleborg**	Scheduled	1873 1991	The Museum Act § 29e Protection order of 18th December 1991
		Listed in the Municipal Plan	2009	Planning Act
		Listed as an archaeological site of irreplaceable cultural importance	2003	No. 040304-14

No.	COMPONENT PART/SITE	PROTECTIVE DESIGNATION	YEAR OF DESIGNATION	LEGISLATIVE ACTS
4	**Hedeby and Danevirke**			
		Protected area under general legislation	1950-2011	The Nature Conservation Act of Schleswig-Holstein (2011) The Building Act The Federal Soil Conservation Act
		Listed Monument	1965-2011	The Monument Preservation Act for the State of Schleswig-Holstein (1996)
		Nature Protection Area "Hedeby-Danevirke"	1950	Federal Regulation
		Nature Protection Area "Reesholm/Schlei"	1976	Federal Regulation
		Landscape Protection Area "Hedeby-Danevirke"	1989	District Regulation
		Landscape Protection Area "Windeby Noor and Schnaaper Lake"	1998	District Regulation
		Landscape Protection Area "Hüttener Foothills"	2000	District Regulation
5	**The Grobiņa burials and settlements**			
		Archaeology of national significance	1998	Law on Protection of Cultural Monuments Cabinet Regulation no. 474 of 26th August 2003 "Regulations regarding the Registration, Protection, Utilisation and Restoration of Cultural Monuments and the Granting of the Status of an Environment-Degrading Object"
6	**The Vestfold ship burials**			
6.1	**Borre mounds**	Automatically protected monuments		Cultural Heritage Act §§ 4 and 6
		Protection order on the area	1990	Cultural Heritage Act § 19
		Municipal Master Plan	2011	Planning and Building Act Natural Diversity Act Land Act Forestry Act

TABLE 5.2

No.	COMPONENT PART/SITE	PROTECTIVE DESIGNATION	YEAR OF DESIGNATION	LEGISLATIVE ACTS
6.2	**Oseberg mound**	Automatically protected monument		Cultural Heritage Act §§ 4 and 6
		Municipal Master Plan	2008	Planning and Building Act Land Act
6.3	**Gokstad mounds**	Automatically protected monument		Cultural Heritage Act §§ 4 and 6
		Municipal Master Plan	2010	Planning and Building Act Land Act
7	**The Hyllestad quernstone quarries**			
		Automatically protected monuments		Cultural Heritage Act §§ 4 and 6
		Nature reserve at Rønset	2009	Nature Diversity Act
		Municipal Master Plan	2009	Planning and Building Act Land Act

5.C
MEANS OF IMPLEMENTING PROTECTIVE MEASURES

The serial nomination of Viking Age Sites in Northern Europe is subject to a number of international conventions as well as the legal protection of the national legislations of the States Parties. All the States Parties except Iceland have ratified the Valletta Convention (1992); Iceland ratified its predecessor, the European Convention on the Protection of the Archaeological Heritage (1969). All the States Parties have largely applied the recommendations of the conventions in their national legislation.

ÞINGVELLIR (1)

Under the *Act on the Þingvellir National Park* it is a criminal offence to alter, damage or destroy any properties within the National Park boundaries without the consent of the Þingvellir Commission. The commission is elected by a proportional vote at the beginning of each term of parliament immediately after a general election. The buffer zone of the nominated component part is the boundary of the national park.

Under the *Heritage Act* it is a criminal offence to alter, damage or destroy ruins and any buildings or properties that fall under the protection of the act, as all ruins do within the Þingvellir Park Area, without the written consent of the Cultural Heritage Agency.

The purpose of the *Act on the Conservation of Lake Þingvallavatn* is to promote the conservation of the biosphere of lake Þingvallavatn. The nominated area and the buffer zone are subject to the act.

No one is allowed to alter, damage or destroy landscape types that fall under the *Nature Conservation Act* without prior notification to the Environment and Food Agency of Iceland and relevant municipality. In considering development and development plans, municipalities are bound to have special regard to the desirability of preserving these landscape types in consultation with the Environment and Food Agency of Iceland.

According to the *National Planning Act,* if a development project is carried out in a manner different from that for which permission was granted, or if a building is put to a use other than that which the local authority has authorised, the planning/building officer may stop such actions immediately. If the project requires a development permit, the planning officer shall seek the confirmation of the local authority. If the project requires a building permit, the building officer shall seek the confirmation of the building committee as soon as possible. The development plan for an area in which construction work has been carried out in violation of the plan may not be amended before the illegal building, or part of a building, has been removed, broken ground smoothed over or activity discontinued. If the need arises, the police shall be obliged to assist a building officer or building committee in carrying out the above measures.

JELLING (2)

The World Heritage monuments of 1994, and the extended nomination of elements in the component part related to the World Heritage monuments of 1994, are protected through several different protective laws and legislations, e.g. Local Plan 1150 from 2012 and Municipal Plan Amendment 41 from 2012 with the buffer zone, according to Announcement no. 1027 of 20th October 2008 of the *Planning Act*.

The church is protected under the *Churches and Churchyards Consolidated Act* of 1992. This requires any alteration to the structures to be approved from the diocesan authorities after consultation with the National Museum of Denmark and the Royal Inspector of Listed State Buildings. The church is furthermore surrounded by a building prohibition buffer zone of 300 m. This prohibits the erection of buildings over 8.5 m in height (*Act on Nature*

Conservation no. 1042 of 22nd October 2008, § 19). A judicial restriction is in force for a distance of up to 1000 m into the area north of Jelling to prevent the erection of any building or afforestation, so that an uninterrupted view of the monument is to be maintained (see Figure 5.1 for the visual border extension north of the Jelling complex).

The mounds, the two rune stones and the remains of the palisade are protected under the *Museum Act*. The *Museum Act* prohibits any activities that may damage or disturb the monuments (decree no. 1505 of 14th December 2006). The *Protection of Nature Act* provides an additional buffer zone of 100 m around the mounds, as well as around the rune stones (decree no. 1042 of 22nd October 2008, § 18). The restriction is a part of the buffer zone.

The buffer zone is implemented by Municipal Plan Amendment 41 from 2012. The boundaries of the buffer zone are determined in the town area by criteria of visibility and current local plans. The boundaries in the open landscape are determined by a *Protection Order of 13th October 1947* with the aim to secure the visibility of and from the North Mound and the church.

An earthen dike runs over the area north of the North Mound and crosses the northern section of the palisade. The dike is protected according to the *Museum Act* § 29 a, but as a later addition it is not included in the nominated component part.

ANNOUNCEMENT OF THE *MUSEUM ACT*

According to the *Museum Act*, part 8a, it is prohibited to alter the state of ancient monuments. The types of ancient monument are listed in an annex to the act. Mounds, rune stones and fortifications (the palisade) are included in the types on the list. The Danish Agency for Culture may grant exemptions from the provisions, but the administrative practices are very restrictive. The state and local authorities are obliged to manage the monuments they own.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

Aggersborg is the subject of a scheduling according to the *Protection of Nature Act*, Chapter 6. The scheduling was approved by the Danish Supreme Nature Conservancy Board on 4th September 1990. The southernmost part of Aggersborg lies within the coastal protection zone according to the *Protection of Nature Act* § 15 (see Annex 5b_a3). This has the aim of conserving and protecting the area's cultural-historical and archaeological assets and, within this in particular, the remains of the Viking Age fortress of Aggersborg, as well as ensuring public access to the area to the extent that this access is consistent with the other aims of the protection.

The process of scheduling the subsoil remains on the Aggersborggård area according to the *Museum Act* § 29e is ongoing.

The southernmost part of the buffer zone lies within the *Protection of Nature Act's* coastal protection zone in §§ 8 and 15. This means that no changes may be made to the status of the area. The area also lies in conjunction with the protected habitats meadow, shore meadow and common, which are regulated by the *Protection of Nature Act* § 3.

The area lies within the International Nature Reserve no. 16 for Løgstør Bredning, Vejlerne and Bulbjerg. This means that the area is covered by the *Environmental Objectives Act*, Chapters 13 and 14, with respect to designation and altering of international nature reserves and with respect to planning for nature; the area is similarly covered by the *Protection of Nature Act*, Chapter 2a.

A condition of the preservation order according to the *Protection of Nature Act* is that the area is conserved and taken care of by the Danish Nature Agency. The Historical Museum of Northern Jutland reports any infringements relative to the Danish *Museum Act* to the Danish Agency for Culture which has authority over the area. *Protection of Nature Act* and *Planning Act* are enforced by Vesthimmerland Municipality.

In the Municipal Plan 2009 for Vesthimmerland Municipality, Aggersborg lies within: Natural amenity area according to the *Planning Act* § 11a, section 1, no. 13. Coastal protection zone according to the *Planning Act* § 11a, section 1, no. 18. Valuable historic environment in Municipal Plan 2009 for Vesthimmerland Municipality accord-

ing to the *Planning Act* § 11a, section 14. Afforestation undesirable according to the *Planning Act* § 11a, section 1, no. 11. Ecological corridor according to the *Planning Act* § 11a, section 1, no. 13.

In Municipal Plan 2009 for Vesthimmerland Municipality, Aggersborg lies in conjunction with the following designations which have an influence on the use and protection of the areas around the property: Wind-turbine area according to the *Planning Act* § 11a, section 1, no. 5. Agricultural area according to the *Planning Act* § 11a, section 1, no. 10. Geologically valuable area according to the *Planning Act* § 11a, section 1, no. 16. Area of special landscape value according to the *Planning Act* § 11a, section 1, no. 15.

The site is designated as an "archaeological site of irreplaceable cultural importance" (100701-36), which is an area of land that contains known archaeological remains of national (international) scientific, cultural or historical importance. This registration has no protective effect, but is of informative and preventive character.

FYRKAT (3.2)

A condition of the preservation order according to the *Protection of Nature Act* is that the area is conserved and maintained. The National Museum of Denmark monitors the site annually, according to an agreement with Mariagerfjord Municipality and the Historical Museum of Northern Jutland, which allocates economic resources annually for care and maintenance of the monument. Monitoring of the scheduled ancient monument is carried out by the Historical Museum of Northern Jutland which reports any infringements relative to the Danish *Museum Act* to the Danish Agency for Culture, which has authority over the area. The *Protection of Nature Act* and *Planning Act* are enforced by Mariagerfjord Municipality.

In the Municipal Plan 2009-2013 for Mariagerfjord Municipality, the area (including the buffer zone) is covered by the following guidelines:

- Wetland area
- Historic environment worthy of conservation
- Natural Amenity Area
- Low-lying area
- Landscape of special value
- Area of geological value
- Coastal zone

The property is designated as an "archaeological site of irreplaceable cultural importance" (140707-80), which is an area of land that contains known archaeological remains of national (international) scientific, cultural or historical importance. This registration has no protective effect, but is of informative character.

The property is protected by four registered protection orders:

- Document relating to the protection order of 13th April 1963 (Nature Conservancy Board decision)
- Document relating to the protection order of 17th July 1964 (Supreme Nature Conservancy Board de cision)
- Document relating to the protection order of 4th June 1981 (Nature Conservancy Board decision with regard to a supplementary protection order)
- Document relating to the protection of areas in On sild river valley of 13th November 2006,

TRELLEBORG (3.3)

A condition of the preservation order according to the *Protection of Nature Act* is that the area is conserved and taken care of and, accordingly, the National Museum of Denmark monitors the site annually. Each year, the National Museum allocates economic resources for the repair and maintenance of the site.

The external maintenance of the museum building is the responsibility of Slagelse Municipality, whereas the Trelleborg Viking Fortress/ the National Museum of Denmark is responsible for the internal maintenance of the museum building.

Monitoring of the scheduled ancient monument is carried out on a five-yearly basis by Roskilde Museum. The museum reports any infringements relative to the Danish *Museum Act* to the Danish Agency for Culture, which has authority over the area. The *Protection of Nature Act* and *Planning Act* are enforced by Slagelse Municipality.

Slagelse Municipal Plan 2009-2020, approved by Slagelse Town Council on 26th April 2010. The municipal plan's guidelines cover Trelleborg within the following areas:

- 8.1 Tourist areas – the Great Belt Coast / Trelleborg as an historical adventure centre.
- 8.8 Regional trails – Trelleborg is served by the regional trail running from Korsør, south of Slagelse to Kongskilde.
- 9.5 Coastal Zone – Trelleborg falls within Coastal Zone A, which implies the possibility of state purchase and protection.
- 10.3 Historic environments – Trelleborg is, together with the Vårby river valley, covered by historic environment resolutions.

District Plan 174, Museum at Trelleborg, approved by Slagelse Town Council on 20th June 1994.

The site is designated as an "archaeological site of irreplaceable cultural importance" (040304-14), which is an area of land that contains known archaeological remains of national (international) scientific, cultural or historical importance. This registration has no protective effect, but is of informative character. Announcement of the *Museum Act* - see 5. c Jelling (2)

HEDEBY AND DANEVIRKE (4)

The nominated property and its buffer zone are completely protected through various protective mechanisms, some of which are multiply superposed, in the form of laws and decrees from diverse domains.

The protection of Danevirke and its elements, as well as that of the archaeological surroundings of Hedeby, are regulated in the *Monument Preservation Act* for the State of Schleswig-Holstein and in the *Nature Conservation Act* of Schleswig-Holstein. Additionally, there are competences in the *Building Act* of the German Federation within the requirement to treat the ground sparingly and respectfully, while in the *Federal Soil Conservation Act* the function of the ground as an archive is emphasised. These available instruments are well suited to safeguarding the conservation of the Outstanding Universal Value (OUV) and the integrity of the important features of the Danevirke and Hedeby monuments. Monument preservation and management of the nominated property and its buffer zone are directed towards this objective.

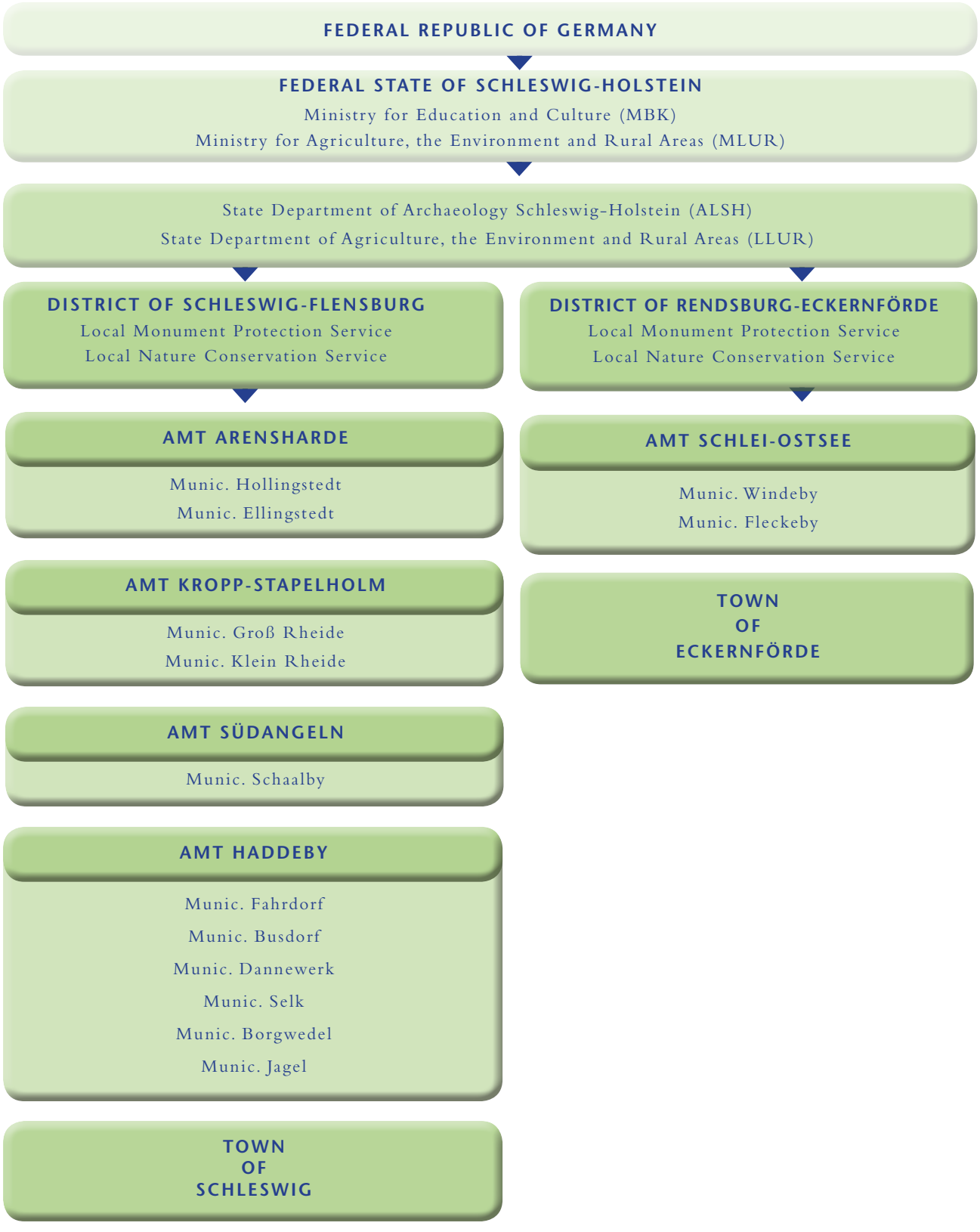
ADMINISTRATIVE STRUCTURE

Schleswig-Holstein, as a partly sovereign state of the Federal Republic of Germany with its different levels of administration, is responsible for the implementation and monitoring of most of the acts. The acts covering spatial planning, nature conservation and monument protection are especially relevant here and all lie completely within the sovereignty of the State of Schleswig-Holstein. The highest level in respect of administration and planning are the ministries. To them are attached supreme authorities charged with providing technical expertise as the upper level of administration. At this level there is the State Archaeological Department of Schleswig-Holstein and the State Department of Agriculture, the Environment and Rural Areas. The lower administrative level is that of the districts, which additionally exercise administrative tasks of the municipalities, and the urban municipalities. A municipality is the smallest administrative unit and local authority and represents the lowest political level. The municipalities are in charge of town planning, the most important instrument for controlling building development. The municipalities surrounding Hedeby and Danevirke are very small and seldom have a population in excess of 1000 inhabitants, the city of Schleswig and the town of Eckernförde being exceptions. Owing to their small size, the so-called "Amt" operates between the municipalities and the districts as a local authority, overtaking the administrative tasks of the municipalities.

COMPREHENSIVE PROTECTIVE MEASURES

The most important all-embracing instrument in Schleswig-Holstein for preserving the value and integrity of the monuments and their buffer zones is the Management Plan for Hedeby and Danevirke. It is orientated on the transnational management framework. The purpose of the Management Plan for Hedeby and Danevirke is to implement all available instruments for protecting the sites and to control them to optimum effect. On this basis, legal and spatial planning measures as well as other measures and developments to do with the maintenance and use of the monuments in the areas of tourism, museums and research, are to be coordinated and optimised. Even though the management plan in being implemented may seem to have the status of a voluntary agreement between

FIGURE 5.1 *Administrative structure with respect to Hedeby and Danevirke (Munic. = Municipality).*



the stakeholders and the parties involved, it constitutes a commitment, in regard to the answerable authorities, institutions and organisations, to act in accordance with the jointly-formulated objectives of transnational cooperation. It covers therewith all decision-making levels from the national to the local level. Since in the case of planning and development the population and relevant protagonists, who otherwise have no direct legal or planning-related tasks in the protection of monuments, can be actively involved, there is a far greater than usual number of options available for the protection and conservation of the monuments.

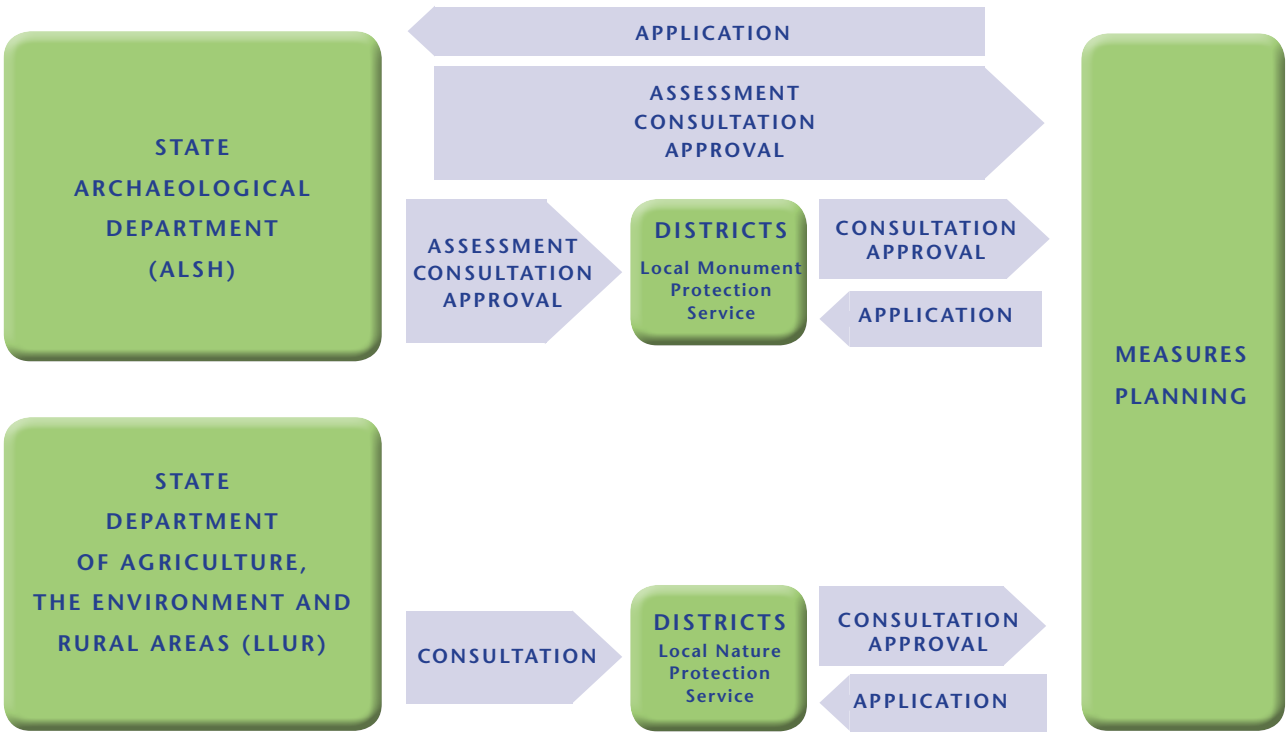
STATUTORY PROTECTION

The observance of the statutory and planning protection is monitored by the Local Monument Protection Service of the separate districts and the State Archaeological Department. The task of nature conservation is the responsibility of the Local Nature Conservation Service of the districts as well as of the State Department of Agriculture, the Environment and Rural Areas (the superior authority for nature conservation). The local services for protecting monuments and nature are thereby responsible for the actual enforcement of the protection. Where measures and strategies are an issue, the local monuments and nature conservation services have to be engaged as a matter of principle. These agencies decide, according to the envisaged impact, whether interference in the area of the protected property and its surroundings (buffer zone and further protection) is to be approved, to be approved under conditions, or to be refused approval. Interference is thus controlled insofar as it cannot threaten the value and integrity of the nominated property.

MONUMENT PRESERVATION

Within the framework of the *Monument Preservation Act*, the protection of the nominated property and its buffer zone is attained by imposing conditions for property owners. Should measures be capable of compromising the monuments and their impact, the approval can be refused or only given under certain conditions. These protective mechanisms also apply in principle for the designated buffer zone. Here, within the scope of the protection for setting of monuments, measures capable of considerably af-

FIGURE 5.2 *Implementation of the statutory protection with respect to Hedeby and Danevirke.*



fecting the impact of the monuments have to be examined case by case. Whether and to what degree such proposals can negatively affect the monuments and their surroundings is usually examined and appraised by the monument protection services. Reviews are carried out on the basis of the specifications of the management plan. The strategy of the management plan preventively banks on a stronger activation and involvement of the property owners, the residents and the users, in order to consolidate their acceptance of, and their good will to, the conservation of the monuments.

NATURE CONSERVATION

Interference in nature protection areas and landscape protections areas as well as in other areas protected by law has to be approved by the local nature conservation service of the district. Measures in the relevant nature protection areas of the nominated property are thereby appraised on the basis of the specific conservation goals. The goals for protecting the landscape and the biotopes largely coincide with those of monument preservation since they prohibit interference and modifications running counter to the protection of the value of the archaeological substance. Furthermore, the responsible nature conservation authorities are legally obligated to carry out measures in areas which are subject equally to nature protection and monument protection only in consultation with the heritage authorities. The management and maintenance of the nominated property are coordinated, within the framework of the management plan for the monuments, with the objectives of nature conservation.

PROTECTIVE EFFECTS

Monument ensembles, listed monuments and nature protection areas, as well as areas of the coherent network *Natura 2000*, are subject to the strictest of conditions. Within the nature protection areas, for instance, it is largely forbidden to build, to leave the marked paths and roads by foot or otherwise, to affix signs or to bring about change in any other way. The restrictions in landscape conservation areas and the protection afforded to setting offer opportunities for regional development but in doing so they put constraints on buildings and other measures in respect of the protection of the overall picture of the landscape, spatial references of the monuments and the aesthetic value of the whole ensemble. The accordingly graduated legal protection facilitates prohibitions, authorisations and measures, which are adapted to the requirements of the monuments and their surroundings on-site. Thus it is able to protect the value and the character of the nominated property in a suitable manner whilst allowing the necessary room for developments at the same time.

SPONSORSHIP

The measures for protecting nature and the landscape are sponsored financially by the State of Schleswig-Holstein. In addition, there are the public and private trusts which likewise support the activities concerning nature protection. Subsidies are presently being applied to the maintenance of the plant cover and in land-use management of Hedeby and Danevirke. The goal is to change land use from privately-owned land by the acquisition or exchange of land in the area of the nominated property and, as the case may be, the buffer zone.

CONSERVATION

All areas of the nominated property are being attended to by means of a detailed maintenance plan within the Management Plan for Danevirke and Hedeby. This is coordinated between the various property owners and the users and controls, through regular maintenance of the areas of the nominated property and suitable special measures, the condition of the monuments' substance and the plant cover. Thus provision is made for the optimal conservation of the monuments and their value as well as of the valuable habitats. The maintenance measures are primarily carried out by a non-profit organisation which is financed by contributions from the property owners and public monies.

SPATIAL PLANNING

In the Federal Republic of Germany, the protection of the archaeological heritage has to be taken into consideration in spatial planning in compliance with the *Spatial Planning Act* (ROG). According to this act, the interests of archaeological heritage management or monument preservation within the sphere of spatial planning have to be treated at the same level, as a matter of principle, as the interests of, for example, nature protection and landscape conservation. The nominated property and its surroundings are affected by planning at various levels. At the level of federal government, guidelines are given in the Federal Spatial Planning Programme.

PLANNING AT STATE LEVEL

The interests of the nominated property have to be respected when basic principles of spatial planning are being compiled. If the inspection of the cultural heritage does not take place, or if a deficit can be recognised in the obligation of taking these interests into consideration, then the State Archaeological Department as the superior authority for monuments has the option of correcting such an aspect. The planning of the municipalities is obligated to act in pursuance with the specifications of planning at federal state level.

PLANNING AT MUNICIPAL LEVEL

The supreme authorities for monument preservation and nature conservation as bodies representing public interests have to give approval to the planning of the municipalities in the land-use plans. Should measures be capable of compromising the monuments and their impact, the approval can be refused or only given under certain conditions.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

The status of monuments belonging to the Grobiņa burials and settlements – cultural monuments of state significance – ensures protection of the site under the laws and regulations of the Republic of Latvia, in particular the *Law on Protection of Cultural Monuments* of 11th March 1992 and the *Cabinet Regulation* no. 474 of 26th August 2003 "Regulations regarding the Registration, Protection, Utilisation and Restoration of Cultural Monuments and the Granting of the Status of an Environment-Degrading Object" (hereinafter: Regulation no. 474), and the development of the site is also influenced by international conventions on heritage protection to which Latvia has acceded, specially the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, the European Convention on the Protection of the Archaeological Heritage, the Council of Europe Framework Convention on the Value of Cultural Heritage for Society, the European Landscape Convention, as well as the recommendations of the Council of Europe.

The six sites included in the Grobiņa burials and settlements are located in Grobiņa Municipality in the territories of administrative territorial units of the parish and town of Grobiņa.

Following the administrative territorial reform, the local government of Grobiņa Municipality started its work on 1st June 2009. Currently, in Grobiņa Municipality the function of long-term spatial development planning documents is performed by territorial plans for the separate parishes and the town which were developed prior to the reform: Medze Parish Territorial Plan for 2005-2017, Grobiņa Parish Territorial Plan for 2004-2016, Grobiņa Town Territorial Plan for 2005-2017, Gavieze Parish Territorial Plan for 2007-2019, and Bārta Parish Territorial Plan for 2007-2019. All these territorial plans have been reapproved by Grobiņa Municipality Regulation no. 4: "On Approval of Territorial Plans of Former Local Governments currently Incorporated into Grobiņa Municipality" (Decision of Grobiņa Municipality council meeting of 29th September 2009, Minutes no. 9, § 25).

On the basis of the decision of the Grobiņa Municipal council meeting of 24th February 2011 (Minutes no. 2, § 21), development of a new territorial plan for Grobiņa Municipality has begun for a 12-year period (2014-2025) and it will apply to the entire territory of Grobiņa Municipality. Within the framework of development of the Grobiņa Municipality Territorial Plan, the study *Individual Protection Zones of State Protected Cultural Monuments* is being prepared. The objective of this is to establish precise territories for all state protected cultural monuments located in the municipality and to develop individual protection zones for them. Establishment of such individual protection zones on the basis of the specific situation for each particular cultural monument will significantly increase the efficiency of provision of the necessary protection for cultural monuments by assessing the specific situation and needs of the monument. The proposals developed as a result of the study are discussed and coordinated with the State Inspection for Heritage Protection of Latvia, and are incorporated in the Territory Use and Building Regulations of the Territorial Plan of the municipality, thus becoming legally binding. According to this, the boundaries of the state protected monuments, and their buffer zones, will conform to the boundaries of the nominated component part.

The draft of the Grobiņa archaeological ensemble development and management plan was produced in 2013, in cooperation with Grobina Municipality and the State Inspection for Heritage Protection of Latvia. It is planned to discuss this draft in the Preservation and Development Cooperation Council of Grobiņa Region Archaeological Heritage and in the local community, as well as among researchers in the framework of the local spatial planning process.

THE VESTFOLD SHIP BURIALS (6)

POLITICAL GOVERNING DOCUMENTS

White Paper no. 35 (2012_2013) "Future with a foothold"

The paper emphasises that Norwegian World Heritage sites shall be developed as beacons of best practice in nature- and cultural heritage management. The Ministry of Climate and Environment will organise the World Heritage work so as to ensure the coordination of all administrative levels and all relevant sectors. There are plans to set up a ministerial World Heritage Committee. Coordination between government, county authority and municipalities will be a priority. Capacity building is another priority. The education authorities shall become more involved. Supplementary training programmes and a guide for teachers will be developed. The World Heritage sites shall become a resource for the schools in their region. Training options for craftsmen shall also be provided, in order to promote skills in this area.

LEGAL INSTRUMENTS

Act of 9 June 1978 no. 50 relating to the Cultural Heritage (the *Cultural Heritage Act*) and the *Act of 27 June 2008 no. 71 relating to Planning and the Processing of Building Applications (the Planning and Building Act)* are the most important legal instruments for the protection of the nominated component part and its buffer zone. The principle of participation and early involvement in planning processes ensure transparency, predictability and public participation for all affected interest groups and authorities. Any administrative decision made pursuant to these acts can be passed on to a higher administrative level with the Ministry of Climate and Environment as the highest appeal instance.

The purpose of the *Act of 9 June 1978 no. 50 relating to the Cultural Heritage* (the *Cultural Heritage Act*) is to protect archaeological and architectural monuments and sites and cultural environments. It contains provisions on automatic protection, protection of areas and dispensations.

In Norway, monuments and sites from before 1537 are regarded as automatically protected cultural heritage and have a security zone of a minimum of 5 m. Any measure proposed in protected areas requires a dispensation from the act. The Gokstad and Oseberg ship burials are protected pursuant to this act. In May 1904, an act was passed forbidding the export of cultural heritage material from Norway. This was intended to prevent the export and sale of priceless historical material. Moreover, legislation relating to the state's ownership rights to antiquities found in the ground was enacted in the summer of 1905. As a direct result of the Oseberg finds, Norway's first Ancient Monuments Act was adopted and the system of automatic protection was introduced into Norwegian cultural heritage legislation.

The ship mound and other grave markings in Borre Park are also automatically protected pursuant to section 4 of the *Cultural Heritage Act*. Moreover, Borre Park forms part of a larger area protected in keeping with a protection order made by the Ministry of Climate and Environment on 5th November 1990 in accordance with section 19 of the act. The church and rectory, as well as Midgard Historical Centre, are also included in the protected area. In the proposed delimitation of the World Heritage area, these are to be located in the proposed buffer zone. The church is automatically protected and the rectory with the main building and leasehold farm was protected by an order of 23rd July 1991 pursuant to section 15 of the *Cultural Heritage Act*.

The *Act of 27 June 2008 no. 71 relating to Planning and the Processing of Building Applications* (the *Planning and Building Act*) provides for a system of coordinated planning in the use of land and resources for central government, regional and municipal functions. One objective is to achieve sustainable development. The *Planning and Building Act* is an increasingly important instrument for safeguarding the large number of cultural monuments and sites in an appropriate manner – also the large number of cultural monuments and sites that are not protected by the *Cultural Heritage Act*. The act contributes to coordinate governmental, regional and municipal tasks and gives a basis for decisions regarding use and protection of resources.

The act requires municipalities to draw up a municipal master plan comprising a social element and a land-use element, and thereby coordinate physical, economic, social, aesthetic and cultural development in the municipality. In the land-use element, cultural monuments and sites and cultural environments can be safeguarded by means of land-use objectives and zones requiring special consideration. The act gives the municipalities the main responsibility for detailed planning, but requires the safeguarding of regional and national considerations in matters involving cultural heritage and cultural environments. The act gives the municipalities the main responsibility for preparing zoning plans. These state the use, protection

and design of the land area and physical surroundings in delimited areas.

In areas designated for agriculture, natural and recreational purposes (ANR areas) there is in general a ban on building. However, the erection of buildings or the implementations of measures that are necessary in agriculture are permitted. There is a general ban on building inside a 100 m belt along the shoreline. The nominated area and the buffer zones are for the most part designated as ANR areas in the municipal land-use plans.

The main purpose of the *Act of 19 June 2009 no. 100 relating to the Management of Biological, Geological and Landscape Diversity* (the *Nature Diversity Act*) is to protect biological, geological and landscape diversity and ecological processes. Fjugstad Nature Reserve in the proposed buffer zone of the Borre mounds is protected pursuant to the *Nature Diversity Act*.

The purpose of the *Act of 12 May 1995 no. 23 relating to the Use of Land* (the *Land Act*) is to ensure that land is employed in a way that is beneficial to society and for those employed in agriculture. Provisions in the *Land Act* state that cultivated land must not be used for purposes that are not directed at agricultural production, and that cultivated land must not be used in such way that it becomes unsuitable for agricultural production in the future. The act contributes to the preservation of the cultural landscape in the nominated area and the proposed buffer zones.

The Act of 27 May 2005 no. 31 relating to Forestry (the *Forestry Act*) has the purpose of promoting sustainable management of forest resources in Norway with a view to promoting local and national economic development and to securing biological diversity, consideration for the landscape, outdoor recreation and the cultural values associated with the forest.

LEVELS OF MANAGEMENT

The responsibility for the use and protection of cultural heritage lies with the various bodies and is divided among three different levels of management, one national, one regional and one local (municipal).

National level

The *Ministry of Climate and Environment* has the prime responsibility for cultural heritage and nature management. The ministry develops legal and economic instruments, deals with specific protection cases, is the highest appeal instance and acts as the State Party in relation to the World Heritage Convention.

The *Directorate for Cultural Heritage* acts as the advisory and executive arm of the Ministry of Climate and Environment, with responsibility for monitoring national policies for cultural heritage and the cultural environment. The directorate is responsible for the implementation of cultural heritage policies. It has special responsibility for ensuring the provision of adequate measures for protected monuments and sites, and for paving the way for local and regional actors to carry out their tasks. The directorate is also empowered to grant dispensations pursuant to the *Cultural Heritage Act*.

The *archaeological museums* conduct archaeological excavations and manage the state's property rights to archaeological artefacts and portable cultural objects found on land. In Østlandet and Sørlandet (the southeast part of Norway), the Museum of Cultural History at the University of Oslo and the Norwegian Maritime Museum are responsible for these tasks on land and under water, respectively. The Norwegian Institute for Cultural Heritage Research carries out archaeological excavation of Medieval sites and monuments such as churches, monasteries, fortresses and urban complexes.

The Norwegian Environment Agency. On 1 July 2013, the Directorate for Nature Management and the Norwegian Climate and Pollution Agency were merged into one agency, the Norwegian Environment Agency. This is an advisory and executive government agency reporting to the Ministry of Climate and Environment. It will provide expertise for the Government's national and international environmental work and will be responsible for ensuring that the Government's policy is implemented. The agency is responsible for the protection of the natural diversity of plants, animals and the landscape and it designates nature conservation areas.

The *County Governor* is the state's representative in the region, and ensures that national interests are attended to within the municipalities' land-use management. The county governor is responsible for managing the established protected area in accordance with the *Nature Diversity Act*. The County Governor's areas of responsibility with respect to nature management, rural and land-use planning as well as forestry and agricultural issues are important in relation to the Norwegian component parts and their buffer zone.The *Norwegian Nature Inspectorate* was established by the Royal Decree of 25th October 1996.

The inspectorate also supervises and monitors compliance with decisions made in accordance with the *Cultural Heritage Act* and other legislation. Thus its main objective is to safeguard national environmental values and to prevent environmental crime.

Regional level

The *county authority* is an independent, political organisation to which powers have been delegated pursuant to the *Cultural Heritage Act*. The county authority implements government policies and has powers of decision in several areas that involve cultural heritage. The authority also clarifies whether construction developments comply with the act and may issue temporary protection orders. Examples of other kinds of tasks are the registration and maintenance of archaeological monuments and sites and cultural environments. The regions must ensure that cultural heritage and cultural environments are regarded as key resources in the local community.

Local level

The *municipality* controls land use within its own boundaries and is responsible for ensuring that building development plans have been clarified in accordance with the *Cultural Heritage Act* by submitting them to the county authority. The municipalities have no powers pursuant to the act but have every opportunity to safeguard cultural heritage through the use of the *Planning and Building Act*.

Local and regional museums have no authority pursuant to the *Cultural Heritage Act* but serve as a cooperation partner in cultural heritage management.

In connection with the nomination, a *provisional cooperation council* has been established. Provided that the nominated property is inscribed on the World Heritage List, the provisional cooperation council will be made permanent for the Vestfold ship burials and Hyllestad quernstone quarries. The council will ensure the joint management of World Heritage values and will promote the World Heritage Site status in the best interests of the local community.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

For White Paper no. 35 "Future with a foothold", please see above: Vestfold ship burials, Political governing documents.

LEGAL INSTRUMENTS

The *Act of 9 June 1978 no. 50 relating to the Cultural Heritage* (the *Cultural Heritage Act*) and the *Act of 27 June 2008 no. 71 relating to Planning and the Processing of Building Applications* (the *Planning and Building Act*) are the most important legal instruments for the protection of the nominated component part and its buffer zone. See the general description of the *Cultural Heritage Act* and the *Planning and Building Act* above under Vestfold ship burials, Legal instruments. Without exception, the quernstone quarries are automatically protected and governed by the *Cultural Heritage Act*. Any measures to be taken in the quarry area will require a dispensation from the act granted by the Directorate for Cultural Heritage.

The majority of the quernstone quarries located outside the nominated property, but within the buffer zone, are also automatically protected cultural heritage monuments, governed by the *Cultural Heritage Act*. Exceptions to this are 18 blasting quarries from more recent times.

For the general description of the *Planning and Building Act,* see above under Vestfold ship burials, Legal instruments. The main purpose of the *Act of 19 June 2009 no. 100 relating to the Management of Biological, Geological and Landscape Diversity* (the *Nature Diversity Act*) is to protect biological, geological and landscape diversity and ecological processes. Altogether, there are five protection areas in the municipality of Hyllestad as defined by the *Nature Diversity Act* – one bird protection area and four nature reserves. One is located within the nominated area at Rønset and one within the buffer zone.

For a general description of the *Land Act*, see above under Vestfold ship burials, Legal instruments.

The responsibility for use and protection of cultural heritage lies within the various bodies and is divided among three different levels of management: one national, one regional and one local (municipal).

National level

For the general description of the national level of cultural heritage management, see above under Vestfold ship burials.

The *archaeological museums* conduct archaeological excavations and manage the state's right of ownership to archaeological artefacts and portable cultural objects found on land (e.g. quernstones that have been moved from their original context). For Hyllestad, the *University Museum of Bergen* manages this right, and the museum has the responsibility for excavations and investigations of archaeological monuments and sites in Western Norway.

The *maritime museums* conduct marine archaeological surveys and manage the state's right of ownership to the marine cultural heritage. They preserve marine cultural heritage, such as shipwrecks or parts of the hull/cargo or other objects that originate from boats/ships. When plans are made that involve encroachments on the seabed, the museums evaluate, register and express their views on behalf of the cultural departments of the county authorities. In Hyllestad, *Bergen Maritime Museum* has management responsibility for the two quernstone cargoes that are displayed in Millstone Park. Moreover, the museum has a special responsibility for the shipment harbours where ballast stones and quernstones on the seabed have been thrown overboard or lost from a vessel during shipment.

The *county governor* is the state's representative in the region and ensures that national interests are attended to within the municipalities' land-use management. The county governor is responsible for managing the established protected area in accordance with legislation on nature preservation. Thus the clearing and maintenance of the nominated area at Rønset, which is also defined as a protected noble hardwood reserve, must take place in agreement with the county governor.

The *Norwegian Nature Inspectorate* was established by the Royal Decree of 25th October 1996. The Inspectorate also supervises and monitors compliance with decisions made in accordance with the *Cultural Heritage Act* and other legislation. Thus its main objective is to safeguard national environmental values and to prevent environmental crime.

Regional level

For the general description of the *county authority*, please see above: Vestfold ship burials, Levels of management, Regional Level.

Local level

The *municipality* controls land use within its own boundaries and is responsible for ensuring that building development plans have been clarified in accordance with the *Cultural Heritage Act* by submitting them to the county authority. The municipalities have no powers pursuant to the act but have every opportunity to safeguard cultural heritage through the use of the *Planning and Building Act*.

Local and regional museums have no authority pursuant to the *Cultural Heritage Act*, but are collaborators in the management of cultural monuments. The foundation *The Norwegian Millstone Centre* was established on 18th June 2009 with Hyllestad Municipality and Sogn and Fjordane County Authority as the founders. The centre is now part of the Museums of Sogn and Fjordane. The key objectives for the Millstone Centre are research, management and the presentation of the quernstone areas in Norway as historical monuments and sites, and travel destinations. The centre maintains close contact with several Norwegian research communities, including the University of Bergen and the Geological Survey of Norway in Trondheim. The centre is located at Hyllestad and will have a central executive role when it comes to the use and management of the property.

Norwegian world heritage cooperation councilIn connection with the nomination, a *provisional cooperation council* has been established. Provided that the nominated property is inscribed on the World Heritage List, the provisional cooperation council will be made permanent for Hyllestad quernstone quarries and Vestfold ship burials. The council consists of the mayors of the municipalities, representatives from the county authorities, museums and the Directorate for Cultural Heritage. The council will ensure the joint management of the outstanding universal values and will promote the World Heritage Site status in the best interests of the local community.

5.D
EXISTING PLANS RELATED TO THE MUNICIPALITY AND REGION IN WHICH THE PROPOSED COMPONENT PARTS ARE LOCATED

ÞINGVELLIR (1)

Municipal Plan for Bláskógabyggð: Þingvellir area 2004-2016

In 2005 the Municipal Master Plan of Bláskógabyggð Municipality (Þingvellir area) was approved by the Minister of Environment. This plan applies to the westernmost part of Bláskógabyggð Municipality which is the Þingvellir area. The National Park and the nominated area lie within that this. The key objectives of the master plan that were used to guide the making of the policy in different chapters are:

- to protect the natural appearance of the area
- to protect the native vegetation
- to protect the geological formations
- to protect the ecology of lake Þingvallavatn
- to maintain the clarity of the lakes
- to preserve water reserves
- to protect the other ecosystems in the area
- to protect cultural remains
- to enhance the recreational value and right of way for the public
- to enhance conditions for the increasing number of tourists
- to secure the traditional farming land use in the area
- to limit the effect of holiday houses in the area
- to secure good transportation
- that the work will be in accordance with the management plan for Þingvellir National Park and in accordance with the aims of the elected municipal board

The Regional Plan for the Central Highlands in Iceland 1995-2015

The limits of the Central Highlands, which were ratified on 10th May 1999, extend to the northern edge of Þingvellir National Park. The regional plan assumes a protected nature area north of the park boundaries. In line with the decision of the current committee addressing the Central Highlands, and in order to make the plan consistent with the current *National Planning and Building Act* no. 73/1997, the protected nature area in the municipalities' municipal plans shall be assigned local protection. Other land use according to the proposed plan addresses transportation, construction, preservation of archaeological remains and traditional farming.

JELLING (2)

MUNICIPAL PLAN AMENDMENT 41 AND LOCAL PLAN 1150

As a consequence of recent archaeological excavations and research in and around the Jelling monuments, the municipality had put forward a master plan concerning the Jelling complex and the town of Jelling. This plan had three main focus areas:

1. Traffic conditions
2. Town area
3. Monuments

The master plan for Jelling and the monuments included the Town Plan of 2010 with further implications (see Figures 5.2 and 5.3). As a consequence of these two plans, Municipal Plan Amendment 41 and Local Plan 1150 were adopted in 2012 by Vejle Municipality. This necessitates some remodelling of the town, for example the creation of roads for heavy traffic and traffic going through Jelling in a northerly direction instead of passing directly through the

town centre. Also the establishment of a new town centre is part of this plan. The new town centre will be crested around an extensive pedestrian zone. Implementation of Local Plan 1150 is being carried out in 2012-2014.

Traffic conditions

To relieve the monument area from noise, and to secure a buffer zone around the monuments, a new comprehensive traffic system north of the town of Jelling has been established. Heavy and through traffic is lead around the town. The former road, Gormsgade, which ran past the monument area, is now a recreational park. Some properties have been expropriated and demolished. Some of the newly exposed areas have been made into parking, the rest have been converted into green areas for visitors.

Town centre

With the closure and removal of Gormsgade a coherent pedestrian area, extending from *Jelling Kro* in the north to *Byens Hus* in the south, has been laid out. A new square has been established in front of *Byens Hus*, and the present square at *Gorms Torv* has been conjoined with the monument area. For the urban area of Thyrasvej, through which the palisade runs, further planning regarding preservation and conservation needs to be undertaken.

The monument area

Several initiatives to highlight the boundaries of the monument area and to illustrate the extent of the monuments are ongoing. The foot of the south mound has been exposed. Parking areas in the northern part of the monument area have been closed, together with the service building in that area. The path system around the monument area has been simplified. A path creates a new transition between the town and the monuments and new paths will lead visitors around the area. A physical demarcation of the palisade, stone setting and the remains of the Trelleborg-type houses has been established. There is a planting concept and plan for the monument area. The basic idea is that the grassy vegetation on the open land inside the palisade will be different from the vegetation outside it. The planting plan also ensures that the church and graveyard will provide an elegant setting in the open area between the park and the monuments.

In addition to Local Plan 1150 for the monument area, a further five local plans are current:

- Local Plan 1100 approved 30th June 2010 covering areas for public use by the monument area. Aims: demolishing of houses and marking of the monument area.
- Local Plan 1077 approved 25th November 2009. Aims: establishing car parking and a built environment that respects and harmonises with the monuments.
- Local Plan 153 approved 16th June 2005. Aims: establishing a square. Part of the plan area nearest the monuments is superceded by Local Plan 1100.
- Local Plan 135 approved April 1999. Aims: the establishing of "Royal Jelling".
- Local Plan 102 approved 13th December 1984. Aims: regulation of traffic etc. The plan has mostly been superceded by Local Plans 153 and 1100.

To summarise, these five current local plans are included in local plan 1150 for the monument area.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

In Municipal Plan 2009 for Vesthimmerland Municipality, the area is designated as a natural amenity area. This means that with respect to land acquisition or a change in land use, the following guidelines apply:

Agricultural areas

Immediately to the east of Aggersborg, i.e. east of the road Thorupvej, lies the boundary of a large, contiguous agricultural area. Guidelines 5.1.1-5.1.5 apply within this agricultural area:

- 5.1.1 On acquisition of agricultural areas for purposes other than agriculture, the inconvenience to the agricultural industries and businesses should be limited as far as possible.
- 5.1.2 In the agricultural areas, account should be taken of the interests of agricultural industries and businesses, balanced with that taken of the other interests in the open countryside and in towns.
- 5.1.3 The establishment of community bio-gas facilities is conditional on municipal plan amend-

ments; farm bio-gas facilities can similarly be conditional on these.

- 5.1.4 The location of livestock farms should take place in a way which avoids conflicts with residential areas, neighbours, natural and landscape amenities. Actual relocation of facilities and installations can take place in connection with the appropriate permissions and approvals.

- 5.1.5 Areas should be reserved for the expansion of a number of large livestock production facilities as laid down in previously approved regional plan supplements.

- 5.3.1 No woodland to be created within the areas that have been designated as afforestation undesirable.

In Municipal Plan 2009 for Vesthimmerland Municipality, the area has been designated accordingly because of its location within the coastal landscape. This means that the following guidelines apply:

Nature

- 7.3.1 In natural amenity areas, the acquisition of land for urban development and recreative facilities should be carried out in such a way that due account is taken of nature-related interests.

- 7.3.2 In natural amenity areas, a change in land use is permitted for the purposes of promoting opportunities to engage in open-air/out-door activities, the interests of agricultural production or aggregation extraction, on condition that the change does not remove the basis for the value of the natural amenity area.

The municipal guidelines are, however, subordinate to the guidelines for international nature reserves.

The area has been designated in Municipal Plan 2009 (in consultation until 4th November 2009) as being within the coastal protection zone (NB: this was changed after the consultation period had expired) because it lies within the *Planning Act*'s coastal zone, cf. §§ 5a and 11a. This means that on land acquisition or with a change in land use, the following guidelines apply:

- 7.4.1 According to the Municipal Plan 2009 for Vesthimmerland Municipality, part of the area lies in within an ecological corridor. This means that the following guidelines apply: In ecological corridors, planning and administration relating to land use and status should aim to improve habitats and dispersal potential for the animals and plants which the corridors are intended to protect.

- 7.4.2 In ecological corridors, barriers to the dispersal of animals and plants should as far as possible be avoided. Where a new development with a barrier effect cannot be avoided, the consequences of this should be reduced as much as possible.

Area of landscape/scenic value

The entire stretch of coast from Aggersund northwards has been designated as an area of special landscape value in Municipal Plan 2009. Aggersborggård lies on the edge of the designated area. Within areas of special landscape value, guidelines 8.1.1 apply:

- 8.1.1 Areas of special landscape value should as far as possible be exempt from the acquisition of land for purposes which may deface the landscape. Major building works, major road and technical facilities should as far as possible be avoided. Other building activities and facilities should be located and formed with particular consideration for the landscape.

Coastal landscape

- 9.1.1 The coastal protection zone should, as a primary rule, be kept free of urban development, large technical facilities, holiday and outdoor recreation facilities, aggregate extraction etc., which are not dependent on proximity to the coast.

- 9.1.2 Planning and administration within the coastal protection zone should ensure that public access to and along the coast is maintained and improved on a sustainable basis.

Geologically valuable areas

The entire stretch of coast from Aggersund northwards has been identified as a geologically valuable area in Municipal Plan 2009. The manor of Aggersborggård lies on the edge of the identified area. Within geologically valuable areas, guidelines 10.1.1 apply:

- 10.1.1 Geologically valuable areas should be kept free of building works, technical facilities, afforestation (silviculture), aggregate extraction, coastal defences or other developments which will result in the opportunity to perceive the geological formation that forms the basis for the designation being marred or negated.

Cultural environments

Aggersborg is also designated in Municipal Plan 2009 as a part of a valuable historic environment. This historic environment is located in close proximity to a similarly valuable historic environment designated at Aggersund. In connection with the designation, a description has been produced of the environment which can be seen as an annex. The designation means that guidelines 12.1.1-12.1.2 for land use apply within the area:

- 12.1.1 Within designated valuable historic environments, the cultural-historical assets must be protected. Building activity, development and other interventions, which to a significant degree will impair the experience or quality of the cultural-historical assets, must not take place within these areas.
- 12.1.2 District plans should contain a detailed description of the cultural-historical assets within the valuable historic environments, including a record of the protected assets within the area covered by the district plan.
- 12.1.3 Changes in the use of historically valuable buildings and monuments can take place if this is in the interest of their conservation and respects their specific cultural features, as well as being consistent with other plans and legislation.

Wind-turbine areas

Aggersborg lies 2.2 km from an existing wind-turbine area at Thorup, which has a total of ten wind turbines arranged in a straight line along the coast. In Municipal Plan 2009, the existing wind-turbine area has been expanded and designated as an area for seven large wind turbines, in replacement of the existing ten turbines. The designated area is not yet planned in detail, but its boundary lies 1.9 km from the centre of Aggersborg. It is a requirement with respect to the seven new turbines that they must be positioned equidistantly along a straight line, so that they disturb the experience and perception of the landscape as little as possible.

District plan

There are no district plans covering Aggersborg or the surrounding areas.

Listing of the main house at Aggersborggård

Aggersborggård is a manor dating from 1758. The three-winged main building was listed in 1939. The listing is registered with respect to the property located at Aggersborgvej 170A.

Overall conclusion relating to protection of the area

Aggersborg is covered by a series of designations with respect to nature, landscape and the historic environment which protect the property against interventions or new developments. The guidelines for land use within the designated areas all have as their main aim to protect the designated areas against interventions or new developments which can remove or disturb natural assets, such as the flora and fauna, landscape assets such as coastal landscapes and historical assets such as Aggersborg. The property itself is therefore well protected. The municipality, through its administration, ensures that the guidelines and legislation are observed. Aggersborg is conspicuous in the landscape and there are far-reaching vistas from Aggersborg and Aggersborg church. These include views of Løgstør, the lime works south of Aggersund, the harbour areas in and around Løgstør and Aggersund, the Aggersund bridge, the farms in the surrounding landscape, the wind turbines at Nørrekær Enge and the wind-turbine area at Thorup.

The above-mentioned areas, features and monuments are not covered by the guidelines which protect Aggersborg and the surrounding nature and historic environment designations. The municipality will, in its administration of the visible features, attempt as far as possible to take account of these in relation to Aggersborg.

FYRKAT (3.2)

Fyrkat is mentioned in the municipal plan under the following categories:

Historic environments

2.14.1 Designation of valuable historic environments. In the municipal plan for Mariagerfjord Municipality, Annex 2.14, valuable historic environments are specified which should be protected in urban zones, areas with holiday homes and in rural zones. The designated historic environments are to be included in future district plans. Furthermore, conservation-related district plans should be formulated in order to secure these environments for posterity.

Furthermore, afforestation is seen as being undesirable in the area.

Fyrkat and the Onsild river valley are covered by a number of designations relating to nature, landscape and historic environment, which protect the property against interventions or new developments. The guidelines for land use

within the designated areas all have as their main aim to protect these areas against interventions or new development which can remove or disturb natural assets such as the flora and fauna, landscape assets such as the river valley and historic environment assets such as Fyrkat. The property itself is, as a consequence, well protected. The municipality, through its administration, ensures that the guidelines and legislation are observed and respected. Fyrkat is conspicuous in the landscape and the property is visible from the town of Hobro.

TRELLEBORG (3.3)

Slagelse Municipal Plan 2009-2020, approved by Slagelse Town Council on 26th April 2010. The main structure of the municipal plan includes an intention to continue the expansion of Trelleborg Museum – adventure centre etc. Trelleborg is covered by municipal plan area LB3.

In the municipal plan, the provisions are as follows:

- The main structure of the municipal plan should be executed with respect to land use, provision of services, recreative opportunities etc.
- The principles for the expansion of the traffic network should be followed, also with reference to regional recreative trails, although special account should be taken within this of nature protection.
- The area is used for agriculture, horticulture and forestry, recreative and residential purposes. Non-agricultural/horticultural/forestry businesses may not be established in the area.
- The area will remain in the rural zone.
- Existing residences should continue to accommodate year-round occupancy. Replacement houses are normally not permitted to be established.
- Recreative activities should be adapted to conservation interests.
- New builds, alterations and extensions should respect the traditional local building tradition, for example with respect to building form, roof construction, dormers and choice of materials, including doors and windows.
- Technical facilities, including those relating to renewable energy, can only be established in exceptional circumstances.
- Extensive account should be taken with respect to the conservation of animal and plant life in the area as a whole, potentially via protection.
- The area should be treated on a par with ecological corridors.
- The municipal plan's guidelines for area type Special Protection Areas should in general be used as a basis for local planning and processing of individual cases within the area, including special rules for the notification of agricultural building activity, height limits etc.
- The protection plan's guidelines should similarly form a basis for considerations relating to the area.

The municipal plan's specific framework for the area L.B.3 states the following:

"The area is generally used as a rural area, protection area, the area is located in rural zone and should in the future be maintained in the rural zone."

Under other relevant provisions, the following is stated:

"Part of the area is defined as coastal, cf. the national plan directive, consequently no new holiday homes are permitted to be built. A network of recreative trails should be established in the area and provide links with the trail network in the former Korsør Municipality."

The lower reaches of the river Tude Å: The whole area is covered by a pending protection order and should, when this process has been concluded, be cared for in accordance with this, both with regard to nature conservation and the regulation of boat moorings at Næsby bridge. The Trelleborg area can only be expanded such that the actual rampart and its position in the landscape are highlighted for visitors.

Shade can be provided by tree-planting along the river, but not large-scale afforestation which would obscure the course of the river through the landscape.

District Plan 174

The area around Trelleborg is covered by District Plan no. 174, Museum at Trelleborg, approved by Slagelse Town Council on 20th June 1994.

This district plan only covers the property with title no. 17a, Hejninge Town, Hejninge. This is the area on which the museum has been built and which borders on to the actual area of the monument.

A new exhibition building project, New Trelleborg, is planned jointly by Slagelse Municipality and the National Museum of Denmark. This will be launched on 1st January 2014. A new visitor centre with a modern exhibition will replace the existing museum building. Realisation of the project is dependent on external funding.

Planning of trails
The Trelleborg area is served by National Cycle Route no. 6, which runs east-west across Zealand from the Copenhagen area via Kongskilde and Slagelse to Korsør. This cycle route has been extended by building a bridge over the river Vårby Å, meaning that cyclists and pedestrians no longer encounter a dead end at Trelleborg, but are able to continue over the bridge towards Korsør. This national trail is included within the municipality's planning as the main tourist trail from Slagelse to Trelleborg.

Road planning
Trelleborg is today linked to the road network via Trelleborg Allé, which branches off Hejningevej and ends as a dead end at Trelleborg's car park.

Trelleborg is sign-posted from Korsørvej. It should be considered whether, in connection with an expansion of the museum, to provide sign-posting to the area from the motorway junction at Vemmelev.

Protection planning
The area around Tude Å river valley from Trelleborg to the Great Belt is covered by a protection plan.

The protection plan specifies that the area must be maintained in its present natural state and may not be built upon. The western boundary of the district plan area coincides with that of the protected area.

Nature rehabilitation project
A nature rehabilitation project is planned for Tude Å river valley from Trelleborg to the Great Belt. The intention is to restore Tude Å/Næsby Å to its original course, southwards through Lille Vejlen and northwards through Sortesvælgsrenden to the Great Belt. The project is estimated to cost 40 million DKK.

HEDEBY AND DANEVIRKE (4)

MAINTENANCE PLAN

The Maintenance Plan for Hedeby and Danevirke from 2008 was amended in 2010 and is integrated in the site management plan (see Chapter 5.e.). The responsible institution is the State Archaeological Department (ALSH).

TOURISM DEVELOPMENT PLAN

A regional tourism plan was designed in 2009. A specific plan for Hedeby and Danevirke is integrated in the site management plan. The tourism development plan is further specified in Chapter 5.i. Responsible institution is the Ostseefjord Schlei GmbH.

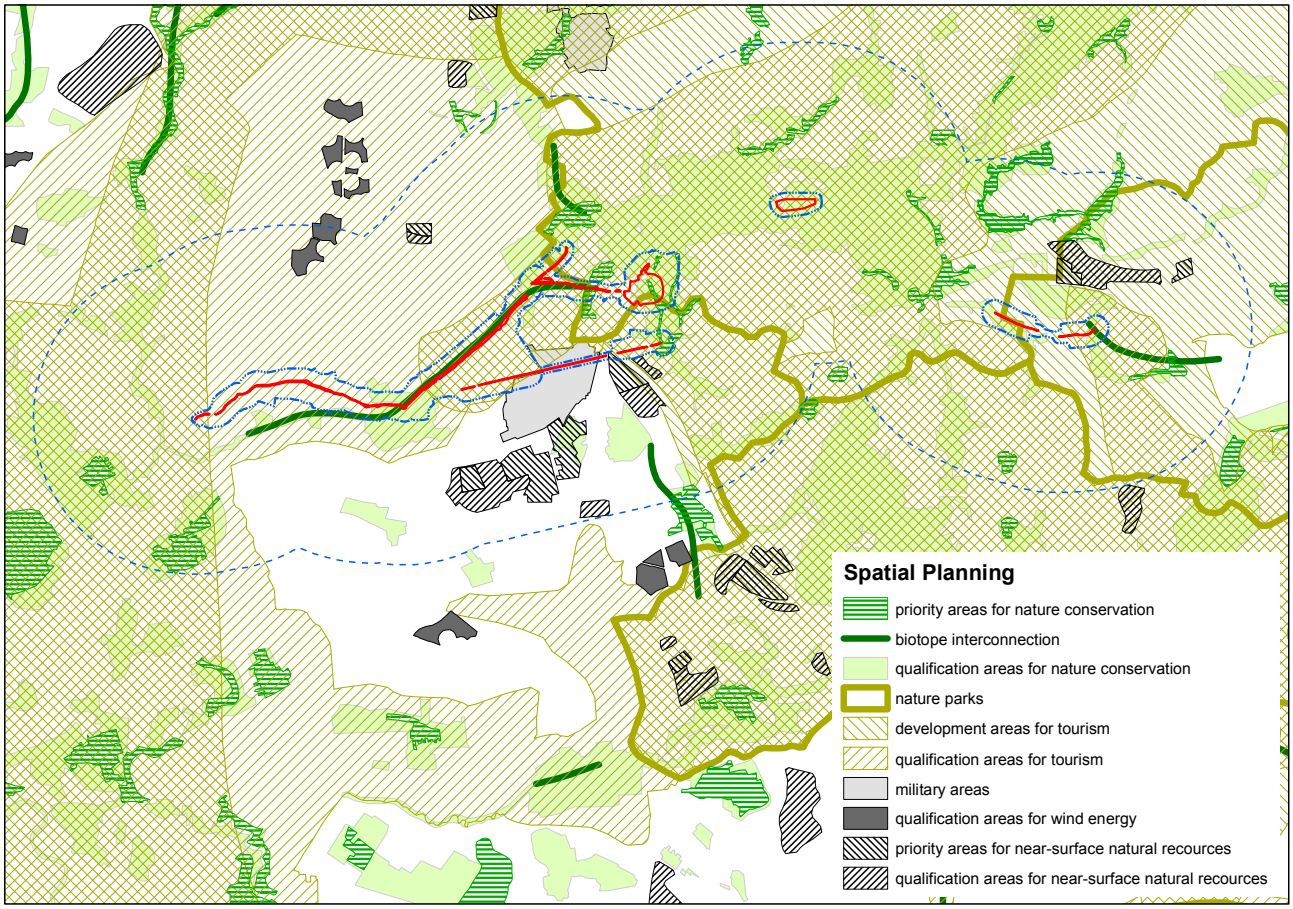
REGIONAL DEVELOPMENT PLAN FOR SCHLESWIG-HOLSTEIN

The Regional Development Plan for Schleswig-Holstein (passed 6th July 2010) formulates general outlines and objectives for spatial planning. The most important policy vis-à-vis the protection of cultural and natural assets is the preservation of the diversity, unique character and beauty of the landscapes, the perpetuation of the ecosystem, and the protection and qualitative development of open spaces. Thus, it is consistent with the protection, conservation and management of the nominated property. The responsible institution is the Ministry of the Interior of Schleswig-Holstein.

REGIONAL PLANS AREAS III AND V

The area of Hedeby and Danevirke is controlled by two regional plans (amended 2000 for area III and 2002 for area V). Regional Plan V is responsible for the District of Schleswig-Flensburg and embraces the whole of the nominated property and its buffer zone except for the East Wall sector. This lies in the District of Rendsburg-Eckernförde and for this reason is in Planning Area III. Regional Plan V designates the western part of Danevirke within the regional open space structure thereby as an element worthy of protection that shapes the historical cultural landscape. The monument additionally counts as a recreation area close to built-up areas. In both regional plans there are priority areas designated for nature and the environment within the buffer zone. Within the framework of the new designation of land

FIGURE 5.3 *Planning issues in regional plans around Hedeby and Danevirke. Red = nominated area, blue = buffer zone, broken blue = wider setting.*



for wind energy, an intervening distance of 4.5-5 km is to be kept clear in the area around Hedeby and Danevirke. Thus both plans are consistent with the protection, conservation and management of the property. The responsible institution is the Ministry of the Interior of Schleswig-Holstein.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

GROBIŅA PARISH TERRITORIAL PLAN FOR 2004-2016

In the Grobiņa Parish Territorial Plan for 2004-2016, the ancient burial sites of Atkalni, Porāni (Pūrāni) and Smukumi are included as state protected archaeological cultural monuments, for which a 500 m protection zone around the territory of the monument has been established. The territories and protection zones of the above-mentioned cultural monuments are also shown in the graphic part of the territorial plan, and in the building regulations specific requirements for their protection have been laid down.

GROBIŅA TOWN TERRITORIAL PLAN FOR 2005-2017

In the Grobiņa Town Territorial Plan for 2005-2017, Grobiņa hillfort (Skābarža kalns) and ancient settlement, Priediens burial site and Grobiņa Medieval castle with bastions are included as state protected archaeological cultural monuments, for which a 100 m protection zone around the territory of the monument has been established. The territories and protection zones of the above-mentioned cultural monuments are also shown in the graphic part of the territorial plan, and in the Building Regulations specific requirements for their protection have been laid down.

GROBIŅA MUNICIPALITY DEVELOPMENT PROGRAMME FOR 2011-2017

Grobiņa Municipality Council has drawn up the Grobiņa Municipality Development Programme for 2011-2017, according to which one of the lines of work is identification of heritage and planning of specific activities to support preservation, study, management of these territories and their integration in the life and development of the municipality.

2011 saw the start of development of a single territorial plan for the entire territory of Grobiņa Municipality (this will be concluded in 2014). Within the framework of development of the Grobiņa Municipality Territorial Plan, the study *Individual Protection Zones of State Protected Cultural Monuments* was prepared. The proposals developed as a result of the study have been discussed and coordinated with the State Inspection for Heritage Protection of Latvia, and after that they were incorporated in the Territory Use and Building Regulations of the Territorial Plan of the municipality, thus becoming legally binding. According to this, the boundaries of the state protected monuments and their buffer zones will conform to the boundaries of the nominated component part.

The local government, taking into consideration its financial and organisational capacity, will actively work towards attracting additional resources for improvement and development of heritage sites and areas surrounding them. Currently, the local government is implementing several important investment projects aimed at this particular objective.

One of these projects, *Building of a footpath and improvement of the bank of Grobiņa reservoir*, was implemented in the territory of Grobiņa town. Within the remit of the project, a technical design was developed; a gravel footpath was built along the northern and northeastern bank of the millpond connecting Pils Street with the Medieval castle ruins and a peninsula opposite them, and this continues past the burial site providing access to Saules Street, Skabārža kalns and the peninsula in the eastern end of the pond. The territory surrounding the reservoir has also been improved, and better lighting installed. The direct objective of the project was to improve the banks of a territory important for fishing – in Grobiņa reservoir – by adapting it for recreation and improving the public living space of inhabitants of Grobiņa Municipality. However, the investments made within the project are very closely connected with the development of the environment of the heritage sites. The project was completed in 2012. The total cost of the project was 40,610.16 LVL, of which 25,171.58 LVL was financed by European Fisheries Fund. The project was implemented within the local development strategy of the association the Liepāja District Partnership.

Another project important for heritage is *The Reconstruction of Tourism Sites in the Historic Centre of Grobiņa Town*. The project is co-financed by European Regional Development Fund. Within the project, part of the historic centre of Grobiņa town, in the territory of a nationally significant urban monument, will be reconstructed – the house at Lielā Street 84 (memorial rooms for writer Z. Mauriņa) and Pils Street, thus creating a new tourism product for tourists in the town of Grobiņa. Through implementation of the project, the preservation and promotion of Grobiņa town heritage will be assured. The total eligible expenditure for the project is 340,565 LVL, comprised of funding from the European Regional Development Fund (289,446 LVL) and local government (51,119 LVL). Pils Street adjoins the Medieval castle and also visually influences Skabārža kalns hillfort. Within the project a new tourism product will be created – a promenade with footpaths, bicycle trail, car parking, environmental objects, benches and lighting; an attractive environment will be created, a historic landscape will be preserved and access will also be ensured for disabled people.

In 2011, Grobiņa Municipality Council started a work on developing the Tourism Development Strategy, in which the heritage located in the territory of the municipality, including the Grobiņa archaeological complex, plays a significant role. When developing the strategy, the heritage will be viewed from the perspective of potential development of tourism by evaluating the possibilities for including it in the overall tourism flow. This involves development of concrete recommendations and project ideas to improve heritage research, management, development and visibility.

THE VESTFOLD SHIP BURIALS (6)

REGIONAL PLANS

A range of regional plans have been adopted that are important for the preservation of cultural environments. A list of current, relevant county authority plans that are of significance for the nominated area is presented below. The date of approval by the Ministry of Climate and Environment (ME), if applicable, appears in the right column. Otherwise, the date of approval in the county council appears (CC).

TABLE 5.3 – *Regional plans significant for the nominated areas of Vestfold.*

Vestfold Regional plan for sustainable area planning	Approved 25.04.2013 (CC)
County Master Plan for Vestfold 2006-2009. Development strategy – continued 2010	Approved by the Royal Decree of 12th September 2008
County Sub-Plan for the coastal zone in Vestfold (Coastal Zone Plan)	Approved 20th February 2003 (ME)
County Master Plan for coordinated land-use and transport system	Approved 23rd July 2001 (ME)
Strategy for business development 2011-2014 and Action Plan 2011-2012	Approved 14th December 2010 (CC)
Strategic Culture Plan for Vestfold 2011-2014	Approved 14th December 2010 (CC)

MUNICIPAL PLANS

The new planning part of the *Planning and Building Act*, which came into force on 1st July 2009, introduced the concept of "zones requiring special consideration" where protection of cultural heritage is one of the possible considerations.

Horten Municipality/ Borre mounds

The land-use part of the Municipal Master Plan

The land-use part of the 2011-2023 Horten Municipal Master Plan was adopted by the Municipal Council on 20th June 2011. The nominated area is designated as an agricultural, natural and recreational area (ANR area). The proposed buffer zone is mainly earmarked for the same purpose, but small areas are reserved for housing, cemeteries and cremation urn parks, public or private service provision (Midgard Historical Centre and the Gildehallen longhouse) and also green structures. Fjugstad Nature Reserve is situated within the proposed buffer zone.

Zoning plans

Six zoning plans related to limited measures in the buffer zone were adopted in the period 1988-2009.

Tønsberg Municipality/ Oseberg mound

The nominated area and the proposed buffer zone are designated as an ANR area in the land-use part of the Municipal Master Plan adopted by the Municipal Council on 16th April 2008. A thematic map of cultural heritage which defines Slagendalen as an "area that is especially rich in visible monuments and sites" was included in the discussions on the master plan by the municipal council.

There are no zoning plans for the Oseberg mound and adjoining areas.

Sandefjord Municipality/ Gokstad mound

The nominated area and the proposed buffer zone are designated as ANR areas in the Municipal Master Plan adopted on 11th February 2010. The Municipal Master Plan does not make provision for building developments in the area, nor are there any zoning plans. When the Municipal Master Plan is next reviewed, the Gokstad mound and adjoining areas will be located in a zone requiring special consideration.

Other plans/frameworks

Overall Plan for Borre Park

For the Vestfold ship burials, the Overall Plan for Borre Park 2007-2015 is the most important instrument for management. The plan gives a detailed account of the care and maintenance of the park. It divides the area into different zones requiring different methods and frequency of maintenance. (An abstract of the plan is appended to the management plan for the Vestfold ship burials.)

Regional environmental programme for agriculture in Vestfold 2013-2016

National and regional environmental programmes gives guidelines for the environmental activities of the municipalities in the form of strategic measures for the allocation of special environmental funding instruments. The county governor is responsible for the programme and the grants.

Vestfold Regional plan for sustainable area politics
Vestfold Regional plan for sustainable land use was adopted on 25th April 2013. As a step in this process Vestfold County Authority's Cultural Heritage Department singled out 37 cultural environments which are deemed particularly important and the conservation and preservation of which is thereby highly prioritised. The three nominated areas are among these cultural environments.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

THE MUNICIPAL MASTER PLAN FOR HYLLESTAD 2009-2020, HYLLESTAD MUNICIPALITY

The final planning decision was made on 1st October 2009, and the plan applies to the whole of the municipality. All three nominated areas in the municipal master plan are defined as an agricultural, natural and recreational area – an ANR area with monuments and sites. Here, regard for the cultural heritage, cultural landscape and landscape aesthetics is the main consideration and the occurrence of quernstone quarries shall be normative for land use.

ZONING PLANS

There are eight *zoning plans* within the buffer zone, passed in the period between 1991 and 2004. These mainly include areas that are regulated for the building of dwelling houses/residential estates, holiday cabins for rental and industrial enterprises:

- *Zoning Plan for Sørbø housing estate*, dated 26th October 2004.
- *Zoning Plan for Sørbøvåg*. The plan was adopted on 8th September 2004. It includes a recreational area, an industrial area and an area regulated for building (dwelling houses, cabins and boathouses).
- *Zoning Plan for Lireid housing estate*. Adopted on 16th December 1991.
- *Zoning provisions for part of Øen*, Angelvik – Hyllestad Municipality. The purpose is to facilitate the building of cabins for rental.
- *Zoning Plan for property number 36/18 at Hyllestad*, decision of 2nd February 1998. The purpose is to accommodate the building of cabins for rental, in total three units.
- *Zoning regulations for the Zoning Plan Myklebust II*, confirmed on 12th December 1988 (residential estate).
- *Zoning Plan for Hyllestad centre*, adopted on 12th December 1993. The plan includes the building of different types of houses, both private and public, and arrangement of traffic systems. The plan has partly been replaced by the *Zoning Plan for Hyllestad centre, adopted on 15th February 1999*. This plan includes the arrangement of traffic systems, the building of dwelling houses and an industrial area in the buffer zone. Millstone Park is incorporated into a special area where the natural environment must be safeguarded and access to the quernstone quarries must be improved.

The protection plan for the nature reserve at Rønset:

The regulations for a protection plan for the noble hardwood forest reserve in Sogn og Fjordane. The protection of Rønset nature reserve in the Hyllestad Municipality, Sogn og Fjordane County.

Hyllestad Municipality. Assessment of the risk of rockslides and flood waves in Åfjorden. NGI report, 22/10 1999.

A management plan for the quarry landscape was produced in 2008: Håland, Marte Tørud and Trude Knutzen Knagenhjelm 2008: *Stein på stein. Forvaltnings- og utviklingsplan for kvernsteinslandskapet i Hyllestad. Aurland Naturverkstad rapport 10/2008.*

5.E
PROPERTY MANAGEMENT PLAN OR OTHER MANAGEMENT SYSTEM

The nominated transnational serial World Heritage Property *Viking Age Sites in Northern Europe* and all of its component parts are managed within an overall framework of cooperation to achieve common standards of identification, recording, research, protection, conservation, management, monitoring, presentation and understanding of the Viking Age heritage, in an inter-disciplinary manner and within a sustainable framework. The basic responsibility for the management of individual component parts of the nominated property should rest with each State Party. The management is performed in accordance with their legislative and management systems.

The main goal of the States Parties is, through cooperation in a Steering Group, to create and develop common rules and good practice in order to protect, preserve, monitor and promote the Outstanding Universal Value of *Viking Age Sites in Northern Europe*. This goal involves active collaboration between national bodies of management, as well as effective coordination in making the property better known to the public.

Particular objectives that result from the main goal will be realised through common management practice agreed by States Parties. Through the established Steering Group, necessary coordination of the management of the individual component parts will be ensured, as well as joint responsibility for the nominated transnational serial property *Viking Age in Northern Europe.*

MANAGEMENT PRINCIPLES OF THE NOMINATED PROPERTY

The aim of the participating States Parties through cooperation in the Steering Group is to maintain the Outstanding Universal Value of the transnational serial property *Viking Age Sites in Northern Europe* by developing and implementing common rules for their management.

This will be achieved through:

- The establishment of common principles and guidelines for good management of the property
- Building capacity for common management of the property through networks and training
- Promoting *Viking Age Sites in Northern Europe* as a common heritage by improving public knowledge, education and accessibility
- Involving communities and other stakeholders and enabling their cooperation
- Monitoring the maintenance of the OUV and the implementation of the common management principles

The common principles and guidelines for the property will be agreed upon when the nomination comes into force and a permanent steering group has been established. All the nominated component parts are, however, already maintained in quite similar ways and on similar principles.

MANAGEMENT STRUCTURE

STEERING GROUP

The Steering Group makes decisions regarding the structure of the management system, its goals and procedures.

The States Parties nominate representatives to the Steering Group. The State Party nominates one person from the national cultural heritage authority and one person from each component part. The representative from the

cultural heritage authority is the National Contact Person.

Each State Party has one vote in the decisions made by the Steering Group. The decisions of the Steering Group must be unanimous. The Steering Group has one general meeting annually. An extraordinary meeting may be requested by any State Party at any time.

CHAIR

The Chair is rotated in alphabetical order, Denmark, Iceland, Latvia, Norway and Schleswig-Holstein, every second year.

The Chair heads the Steering Group and officially represents the Group. The Chair is supported by a Vice-chair. The Vice-chair is the next Chair.

ACTIVITIES

STEERING GROUP

The main activities of the Steering Group are:

- To establish common principles and guidelines for the management of the property. To follow up the state of conservation of the component parts of *Viking Age Sites in Northern Europe* by collecting and assessing annual reports from the five countries
- To coordinate periodic reporting to the World Heritage Committee for the whole series
- To coordinate and give recommendations for the management of the five component parts of the *Viking Age Sites in Northern Europe*
- To develop policies and programmes for the presentation and promotion of *Viking Age Sites in Northern Europe*
- To facilitate research to increase knowledge and improve management of V*iking Age Sites in Northern Europe*
- To promote and facilitate exchange of experience for all the parties involved in site management
- To facilitate availability of information on *Viking Age Sites in Northern Europe* for a wider community
- To encourage sustainable use of *Viking Age Sites in Northern Europe*
- To agree a work plan and budget
- To decide on the location of the Secretariat based on the advice of the Chair

The Steering Group can consult experts for advice and support, either by calling on individuals or by forming ad hoc groups.

CHAIR

The main responsibilities of the Chair are:

- To prepare the meetings and decisions of the Steering Group
- To prepare the annual work plan and budget for *Viking Age Sites in Northern Europe*
- To be the focal point for periodic reporting and submit the report for the whole series to the World Heritage Centre
- To coordinate and promote the implementation of the decisions made by the Steering Group
- To represent *Viking Age Sites in Northern Europe*
- To draw up the Annual Report of the Steering Group based on the national reports submitted by the States Parties before the annual meeting of the Steering Group
- To be in charge of the Secretariat

SECRETARIAT

The Chair is in charge of the work programme for the Secretariat.

The main task of the Secretariat is to assist the Chair in pursuing the policies and decisions of the Steering Group. The Secretariat should assist the Chair in preparing and organising the annual meetings of the Steering Group, as well as issuing the proceedings and other relevant tasks.

The Secretariat keeps all relevant records and is responsible for communicating with the World Heritage Centre.

The Secretariat administers the World Heritage Property´s website.

FUTURE EXTENSIONS TO THE SERIAL PROPERTY

The Steering Group will assess and give its recommendations to the involved States Parties for possible future extensions based on whether these extensions would contribute to the Outstanding Universal Value of the whole Property. States Parties wishing to nominate further component parts to *Viking Age Sites in Northern Europe* are required to endorse the common management system of the property.

LANGUAGE

The working language of the transnational serial nomination *Viking Age Sites in Northern Europe* is English.

SITE MANAGEMENT PLANS FOR THE COMPONENT PARTS

ÞINGVELLIR (1)

Þingvellir National Park. Management Plan 2004-2024
In June 2004, the Þingvellir Commission published its Management Plan 2004-2024. In the management plan, the factors emphasised are broadly similar to those of the previous management plan from 1988. As before, the most important objective is to safeguard the nature, historical area and heritage sites of the national park for the future, while also making preparations for visitors, whose numbers may be expected to rise steadily. The management plan is based upon a vision for the period until 2024. The situation in the main fields in the current year is summarised, and this is followed by an exposition of the principal objectives which must be achieved in order to make the vision a reality.

In the 1990s, systematic development of facilities and services commenced; it is fair to say that this was a prerequisite for the national park to be able to receive a rapidly-growing number of guests in recent years, without serious consequences.

The current management plan stresses the importance of further planning and monitoring, in order to make better use of the existing infrastructure and facilities, and to expand these factors without further encroachment on nature than has already taken place. In addition, emphasis is placed upon visitors having access to education with respect to the unique interplay between history and nature to be found at Þingvellir. The policymaking work involved extensive consultation with visitors to the national park and many stakeholders. This provided a veritable mine of information on the attitudes and ideas on which the management plan is based; the policymakers have striven to reflect the main messages of this consultation in the management plan. The management plan is accompanied by an operational plan, which will be renewed every five years. The intention is that the effectiveness of management of the national park be evaluated in tandem with the renewal of the operational plan.

Þingvellir National Park 2008 – Environmental Policy
The Environmental Policy of the Þingvellir National Park was approved by the Þingvellir Committee to ensure that the internal work of the national park is in accordance with the management plan of the park and to make sure that the actions of the park are environmentally responsible.

The development of the environmental policy took into account the nature and extent of the work that takes place within the park and its environmental effect, measured against its sustainability.

The policy was based on an extensive analysis of the work of the park authorities and its environmental consequences. It is an annex and a further extension of the Management Plan 2004-2024 for the national park. The management plan for the park highlights the conservation issues for the park as a whole, but the environmental policy is directed at the day-to-day management issues of the park.

JELLING (2)

The Management Plan for the Jelling component part is based on the current Management Plan from 2010 for the World Heritage Site, including the Jelling Mounds, Runic Stones, and Church, which has been revised to fulfil the requirements that follow from the expansion of the monument to comprehend all the structures from the Viking Age in the area of the palisade and from the inclusion of Jelling as a part of the serial nomination of *Viking Age Sites in Northern Europe*.

Collaboration and coordination among parties involved in connection with the 2010 Management Plan have been

under the management of the Jelling Parochial Church Council in cooperation with the Deanery of Vejle, Vejle Municipality, and the National Museum of Denmark/ Royal Jelling. Daily care and maintenance has been carried out problem-free throughout this period.

As a consequence of new finds in the area around the existing World Heritage Site, it was decided in 2009 to implement a project presenting and introducing the entire monument area including palisade, remains of houses, and stone setting. In this connection, a steering group was established under the management of Vejle Municipality with the participation of the Jelling Parochial Church Council, the Deanery of Vejle, the Møller Foundation, Katrine Jensens Tegnestue [Karen Jensen Architect's Studio], the Jelling Tourist Association, the Danish Agency for Culture, the National Museum of Denmark, and Vejle Museum.

At a meeting in the fall of 2013 for some of the steering group's members, it was determined to carry on the group's work formally as the Cooperation Council with the purpose of drawing up the Management Plan for the Jelling component part and implementing the plan. The members of the group are the Jelling Parochial Church Council, the Deanery of Vejle, Vejle Municipality, the National Museum of Denmark/Royal Jelling, and Vejle Museum. The Danish Agency for Culture was invited to participate in the collaboration. The chairman of the group will represent the Jelling component part in the Steering Group for *Viking Age Sites in Northern Europe*.

The purpose of the plan

The main goal of the Management Plan is to protect and preserve the Jelling complex in respect of the universal values it represents. Moreover, it defines guidelines for the overall presentation to tourists and other visitors as well as for residents of the region and local area. Furthermore, the Cooperation Council of Jelling with its representation in the Steering Group for *Viking Age Sites in Northern Europe* is to ensure widespread familiarity with the entire serial nomination and the role of the Jelling complex therein.

The Management Plan is a tool for the Cooperation Council to fulfil the goals of the plan. Daily care and maintenance will continue to be undertaken by the Jelling Parochial Church Council and Vejle Municipality.

In summary, the management of the heritage values of the component part is distributed at local, regional, and national levels with operational responsibility created through an already established practice that is fully accepted by the parties involved.

Distribution of responsibility

The church, the mounds, and the rune stones are located in the church's part of the monument area, while the rest of the monument area is in a zone primarily owned by Vejle Municipality. Vejle Municipality is also responsible for that part of the monument area within the confines of the town of Jelling. The previous collaboration on care and maintenance between these two parties will continue under the aegis of the Cooperation Council.

Dissemination strategies

The newly established presentation of the overall monument area is the primary element in the presentation of that part of the Jelling complex that is only preserved underground and, thus, is not immediately visible. As a starting point, this presentation shall take place in Royal Jelling, which will be expanded in 2014-15. Moreover, the exhibition will be renovated in accordance with the research results of "the Jelling Project – A Royal Monument in a Danish and European Perspective". In 2013, a collaborative agreement was entered into between the National Museum of Denmark and Vejle Municipality on this work in Royal Jelling. Preparations for renovations and a new exhibition are ongoing. This part of the overall presentation is also included in the Cooperation Council's responsibilities.

THE TRELLEBORG FORTRESSES (3)

A common management plan for the three trelleborg-sites has been elaborated by the coordinating group, involving the Danish Nature Agency, Vesthimmerland Municipality, Mariagerfjord Municipality, Slagelse Municipality, Trelleborg Museum/The National Museum, the Historical Museum of Northern Jutland and Vesthimmerland Museum.

Daily care and maintenance of the component part is carried out by the Danish Nature Agency for Aggersborg, by Mariagerfjord Municipality and the Historical Museum of Northern Jutland for Fyrkat, and by Slagelse Municipality and Trelleborg Museum/The National Museum of Denmark for Trelleborg.

Aim

The overall aim of the management plan is to protect the Outstanding Universal Value which represents the reason

for inclusion on the World Heritage List. In addition, the management plan also ensures that:

- All users have an understanding of the component part and its unique value and, at the same time, the local population's pride and interest in, and respect for, the site is promoted
- All users have the opportunity of enriching and informative experiences
- Tourism is developed on a sustainable basis
- A sensible and sustainable balance is created between the various applications and interests associated with the area
- Knowledge of the component part is disseminated
- Research is carried out into the property

The management plan for the Trelleborg fortresses will be re-evaluated each year. Revision of the management plan will be carried out and will be ultimately approved by owners, municipalities and museums.

Distribution of responsibility

The management of the component part takes place in cooperation between several partners. The Danish Agency for Culture has the ultimate responsibility for the component part in relation to UNESCO and is also responsible for contact with UNESCO. The national responsibility for management of the component part is held by the Danish Nature Agency for Aggersborg and the National Museum of Denmark for Fyrkat and Trelleborg. The actual practical management of the component part takes place, in the case of Aggersborg, in close cooperation and dialogue with Vesthimmerland Municipality and Museum, in the case of Fyrkat with Mariagerfjord Municipality and Museum of Northern Jutland, in the case of Trelleborg with Slagelse Municipality and Trelleborg Museum. The responsibility for monitoring according to the Museum Act has been placed with the Danish Agency for Culture which has requested that the Historical Museum of Northern Jutland performs this function for Aggersborg and Fyrkat, and Roskilde Museum correspondingly for Trelleborg.

Threats to the component part

In general terms, the component part is not threatened by development or natural conditions. The component part is located within areas which are protected by other legislative circumstances. If, even in the light of this, one factor is to be identified which, with time, could represent a threat, this must generally be seen as over-exploitation of the component part in the form of visitor erosion of the terrain. A significant aspect of the component part's authenticity lies in its appearance in the landscape, and this is already secured by the existing legislative and planning regulations. By way of reinforcement, this factor is, even so, mentioned as a potential future threat.

Activities

A large number of activities take place within the component part. These can lead to increased visitor pressure and thereby constitute a threat to the property. Accordingly, it is necessary that these activities are controlled via management initiatives. At the annual meeting between partners, the interpretation and presentation of the property are discussed. Included in these discussions are already implemented and future interpretation and presentation initiatives.

Economic resources and implementation

In connection with implementation of the management plan for the ring fortresses, a number of human and economic resources are expected to be available for the work in the future. These are individual for each of the three sites; despite this, they result in the securing of the component part. A description is given below of what is carried out at each of the three ring fortresses.

Dissemination strategy

The Danish Agency for Culture, in connection with the project *Danish Prehistory in the Landscape* in 2011-2014, has upgraded both the standard of the interpretation and presentation and of the maintenance at the three ring fortresses. A grant from A.P. Møller and Chastine Mc-Kinney Møller's Foundation for General Purposes has enabled the profile of *Danish Prehistory in the Landscape* to be raised. Through the work of this project, it will be possible to experience Denmark's earliest history *in situ* in the landscape thereby providing a supplement to a major exhibition on Danish prehistory at the National Museum of Denmark.

Aggersborg (3.1)

As owner of the property, the Danish Nature Agency is responsible for maintenance and monitoring. Protection and management of the property takes place by way of regular care in the form of grass cutting on both flat areas and the rampart itself.

The Danish Nature Agency has subsequently been re-

sponsible for the maintenance of the rampart. A farmer cuts hay annually on the flat areas. The rampart itself is cut without any heavy machinery travelling directly upon it.

Fyrkat (3.2)

The Historical Museum of Northern Jutland carries out monitoring of the site and, together with Mariagerfjord Municipality, consequent maintenance of the site and the immediately adjoining areas: Steps and trails are cleared of weeds prior to the start of the season. Mole control and the levelling out of molehills are carried out as required. In 2012, Mariagerfjord Municipality fenced in the site in order to graze the area with sheep.

Trelleborg (3.3)

Trelleborg Museum/The National Museum is responsible for the maintenance. Maintenance has mostly consisted of mowing the grass with special machines on the rampart and otherwise grazing by sheep. A fine balance has been found between the number of grazing animals and the need for grazing; this means that the fortress is not exposed to excessive erosion.

HEDEBY AND DANEVIRKE (4)

Strategy

The Site Management Plan for Hedeby and Danevirke is stipulated jointly by local, regional and federal protagonists and interest groups as a guideline for action geared to the long term. It is determined by the specifications of the transnational management framework concerning Viking Age Monuments and Sites and by all relevant international standards applying to monument conservation as well as the charters and conventions connected with the management of the archaeological heritage.

The management plan for the component parts of Hedeby and Danevirke encompasses the nominated property, the buffer zone and, in part, the statutory setting protection which extends beyond. For this area, operational objectives were agreed upon and recommendations for planning and actions given which can be specified and supplemented by means of a catalogue of measures.

Moreover, the management plan provides all necessary basic information about the history, inventory and value of the monuments for planning and other measures. Its field of action extends from the statutory tasks like monument preservation and nature conservation and planning, via development concepts for municipalities and maintenance measures, as far as important ways of utilisation such as tourism, interpretation and research.

The objectives and the principles of the management plan link the preservation of the physical and intangible values of the archaeological monuments as well as their relationship with their setting in reciprocal action with their ecological, social and economic development. The emphasis is thereby on the integration of the monuments into their modern social environment and into all spheres impacting directly or indirectly upon value retention. In terms of the strategic objectives of the UNESCO World Heritage Committee concerning the effective conservation, participation through communication and the strengthening of the role of the local communities, a very far-ranging course of action for long-term conservation is being set up. Besides passive protection through boundaries, laws and regulations, it envisages active preservation through plans and strategies, and through raising acceptance and awareness of the monuments and their value. Hedeby and Danevirke should thereby obtain a roll as a driver for development in the region, thus becoming more strongly anchored socially as an important regional resource.

Preceding the management plan is a strategy which guides, as principles of heritage management, all further strategic and functional decisions, in order to realise the ideas described in a strategy, the so-called Vision. This strategy comprises long-term objectives and operational principles.

Integrative approach: Hedeby and Danevirke are perceived and conserved as an integral historical complex and as a part of the transnational UNESCO World Heritage nomination *Viking Age Monuments and Sites*.

Value retention: All features embracing the contribution of Hedeby and Danevirke to the Outstanding Universal Value of *Viking Age Sites in Northern Europe* remain in place on the ground in their entirety. Features carrying other values of national, regional and local importance are also conserved. These include form and substance, spatial reference and spatial impact and also perceptibility.

Sustainability: Hedeby and Danevirke are integrated into their cultural, social, ecological and economic settings and are, by means of their sustainable use, a driver for development and an improved quality of life.

Participation: The population is aware of the significance of Hedeby and Danevirke and actively supports the safeguarding and further development of this world heritage.

Basic principles

- Orientation on the terms of reference of the UNESCO World Heritage Convention and the transnational cooperation *Viking Age Sites in Northern Europe*.
- Preventative protection by safeguarding the substance, preventing the monuments' values from being compromised and by long-term strategies, plans and measures which are monument-friendly.
- Weighing up of decisions on grounds of the best information available.
- Best possible use of existing laws, responsibilities and other instruments.
- Participation of the population, relevant institutions and organisations and other important interest groups.
- Sustainable use of the monuments for education, nature conservation and recreation and of the buffer zone for activities and developments which support the value retention of the monuments.
- Raising awareness and acceptance with respect to the monuments as well as cultural and natural heritage in general through information and education.

Management

The management plan creates an effective management structure in order to achieve the long-term and operational objectives. The basis is thereby good communication and the participation of all the important interest groups of the region with the help of specified structures, rules and instruments.

The objectives and measures agreed upon in the management plan are implemented by the responsible local actors. The Danevirke/Hedeby Association and its working groups serve thereby as a legally constituted participating platform for the region in the development, updating, implementation and monitoring of the management plan. In addition, it assumes operatively the trustee obligations of the property owners in matters of maintenance and areal management. The coordination of agreements with the international partners of the nominated serial property, and the administrative tasks of monument management, are carried out via the Site Management Office which is domiciled in the Schleswig-Holstein's State Archaeological Department.

Long-term and secure finance for the implementation of the management plan is guaranteed through the Government of the State of Schleswig-Holstein and its representative the Ministry of Justice, Culture Issues and European Affairs (since 2012), as well as through the local interest groups based on a stipulated distribution key.

Use

The prime use of the monuments is that as historical material sources and the subject of scientific research. Furthermore, distinct concepts are created within the scope of the management plan for conveying their significance and usage as well as the exposure of the monuments through tourism. The cultural-tourism development plays a significant role in the long-term conservation of the monuments. It is today's most important form of economic use and creates direct economic benefits for the surrounding areas while, at the same time, constituting a potential threat to the monuments. Cultural tourism and museum development of the monuments endorse the educational mandate of the UNESCO in a special way and help to sensitise visitors and residents to the cultural and natural heritage.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

In addition to the existing municipal development documents, a Site Management and Development Plan will be drawn up in accordance with Latvian and international norms for the preservation and development of World Heritage Sites.

Guidelines for developing the management plan and the basis of its contents were adopted on 13th April 2011 in a working seminar with participants from Grobiņa Municipal Council, the State Inspection for Heritage Protection of Latvia, Liepāja Museum, the Latvian National Commission for UNESCO, Kurzeme Planning Region and the National History Museum of Latvia. At this meeting, the structure of the management plan and distribution of responsibilities was agreed upon.

In October 2012, the Cooperation Council for protection and development of the Grobiņa archaeological heritage was established and now coordinates the elaboration and implementation of the management plan.

Vision of the management plan

Grobiņa becomes a recognised and well-understood site in the World Heritage network and a significant driving force for long-term development in Latvia.

Long-term objectives

1) Create preconditions and develop a sustainable management system for long-term preservation and development of the Grobiņa archaeological heritage, promotion of the special value of the World Heritage Site and its valorisation both locally and internationally.

2) Create and develop a local government development policy that assigns functions to the Grobiņa archaeological complex that are important to society, particularly emphasising active involvement of the local community, and includes initiatives important for its protection.

3) Create and strengthen institutional capacity for implementing plans intended for managing and developing the Grobiņa archaeological heritage, and developing institutional cooperation at local, national and international levels for the exchange of expertise and experience.

4) Perform significant scientific studies and other types of initiatives which facilitate study, protection, conservation, promotion and restoration of these territories.

Short-term objectives and tasks

1) Create a Cooperation Council for deciding management and development issues concerning the Grobiņa archaeological heritage territories.

2) Prepare a concept of interpretation and promotion for the Grobiņa archaeological heritage.

3) Develop the Grobiņa Municipality Territorial Plan for 2014-2025, which will also include the nominated site.

4) During 2013, develop and discuss with all stakeholders the Management and Development Plan for the Grobiņa archaeological complex (for the period until 2017).

5) Implement activities for studying, managing and promoting the Grobiņa archaeological complex.

Description of the Management and Development Plan

The management plan will consist of four sections. Section 1 will be devoted to defining the special value of the site.

Section 2 of the plan will describe the borders of the territories, including site borders, protection zones and respective coordinates.

Section 3 will contain information on the definition of the protection status and the protection system including its legal basis. This must include reference to the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, together with the guidelines for its implementation, other international conventions, in particular the European Convention on the Protection of the Archaeological Heritage, European Landscape Convention, Council of Europe Framework Convention on the Value of Cultural Heritage for Society, Law on Protection of Cultural Monuments of the Republic of Latvia and the related Cabinet Regulation no. 474, as well as the Municipality Territorial Plan and binding regulations. It is important that these local-level binding regulations define the necessary restrictions ensuring optimum protection, preservation and also development of the sites. These restrictions must therefore be reasonable, justified and aimed towards long-term development.

Section 4, which is the most important section, contains the Plan of Preservation Activities for Cultural Monuments, which includes four important subsections – Management Structure (distribution of responsibility, ownership, financing), Scientific Research and Development Planning of the Site, Potential Threats and Activities for Eliminating Them, and the Communication Plan (including educational activities, tourism activities, international cooperation etc.).

To ensure management of the sites, the local government is creating a Cooperation Council, the main task of which will be dealing with issues crucial for the development of these sites. The local government council has decided to create this cooperation council comprised of 11 members including representatives from the Grobiņa Municipality Council, the Liepāja City Council, the State Inspection for Heritage Protection, the Latvian National Commission for UNESCO, the National History Museum of Latvia and the Latvian Association of Local and Regional Governments.

It must be taken into consideration that only two of the six cultural monuments are owned by the local government, therefore it is important to provide an effective mechanism for communicating, involving and cooperating with the owners of the territories of all the other sites. Here, the main responsibility lies with the local government and involved institutions.

Scientific research and development planning of the sites

is one of the most important tasks. Research into the sites will certainly be included in the development planning activities, because the current level of investigation is insufficient for future development. Funding for research needs also to be attracted from EU funds, Baltic Sea region funds, in cooperation with the National History Museum of Latvia and Liepāja Museum. In 2011, the local government commenced development of a new territorial plan for the whole territory of the municipality and, as part of this, cultural monuments are studied, their territories are established and individual protection zones are created. Particular attention will be paid to the potential UNESCO zone. The local government also has the diploma paper of a young architect, D. Gertners, on potential development scenarios for the territory of the Grobiņa archaeological complex. These scenarios will also be evaluated and possibly implemented, because they are essentially aimed at preserving and developing these values, improving the style of presentation etc. Institutions in charge of this include the local government, the State Inspection for Heritage Protection and the administrations of both involved museums.

By identifying potential threats and solutions for reducing them, Section 4 of the Management and Development Plan must study and analyse at least five such threats – lack of funding for implementing protection and development initiatives, the complexity of the site, when it is difficult to explain its value to society, different owners, some of whom are not interested in the future development vision for the site, pollution and excessive number of visitors in the future. Activities for reducing these threats could be aimed at attracting external funding, looking for new ideas, developing a communication plan, working with owners of, and visitors to, the site, as well as development of a tourism plan. Here, the main responsibility lies with the local government.

For the purpose of creating a favourable attitude from the public, it is essential to prepare and implement an effective communications plan, including heritage interpretation and heritage education initiatives. The story of the sites must be actively communicated and the sites themselves need to be maintained so that they are accessible, well preserved and explained to facilitate the learning of their history. This could be achieved in various ways. The ideas proposed in D. Gertners's diploma paper can be applied and further developed. Diverse activities involving heritage education are to be implemented in close cooperation with the Latvian National Commission for UNESCO that has already proposed initiatives in this respect, emphasising the needs of the young generation and the institutional role of schools. An important priority should be given to organising local, national and international conferences and meetings dedicated to the Grobiņa archaeological heritage and the history of Viking Age, as well as scientific publications, information materials, books and booklets for a wider public. There is also an initiative to establish a Viking Age museum or centre in Grobiņa. At first a concept should be developed, studies performed and collections created. This could be followed later by developing the museum building itself. Possible loans of collections, including from abroad, should also be considered.

The draft of management plan was elaborated in 2013 in cooperation with Grobina Municipality and the State Inspection for Heritage Protection of Latvia. Public discussions on this draft document are planned within a local community and among researchers within the framework of the local spatial planning processes.

THE VESTFOLD SHIP BURIALS (6)

A declaration of intent has been signed by the municipalities of Hyllestad, Horten, Sandefjord and Tønsberg, the counties of Sogn og Fjordane and Vestfold, the county governors and the Directorate for Cultural Heritage in June 2011, committing them to protect, promote and transfer the Outstanding Universal Value in the Vestfold ship burials and the Hyllestad quernstone quarries. (For the whole declaration, see the appended Management Plan for the Vestfold ship burials.)

Management Plan for the Vestfold ship burials

Daily care and maintenance of the property will be carried out by Vestfold County Authority and Horten Municipality for the Borre mounds, by Tønsberg Municipality for the Oseberg mound and by Sandefjord Municipality for the Gokstad mound.

A management plan for the Vestfold ship burials was prepared in 2011 and revised in 2013. This has been submitted as a policy briefing to municipal councils and the county council. The plan clarifies the Outstanding Universal Value and other supporting values of the nominated areas. A short résumé of the plan is given below.

Vision and overarching objective

The vision for Vestfold's part of the serial nomination is *The Vestfold ship burials – common past, universal future.*

Main goal
The overarching goal of the management plan is *to ensure the production of knowledge, reflection and memorable experiences through the dissemination, protection and preservation of the ship burials' potential Outstanding Universal Values for today's residents and visitors and for future generations to come.*

Sub-goal 1 Dissemination of the Vestfold Ship Burials
The dissemination of the *Vestfold Ship Burials* shall be knowledge-based and widely accessible locally, regionally and globally.

Sub-goal 2 Preservation of the Vestfold Ship Burials
The *Vestfold Ship Burials* shall be maintained and developed in such a way that the potential Outstanding Universal Values are preserved.

Sub-goal 3 Protection of the Vestfold Ship Burials
The *Vestfold Ship Burials* shall be protected and safeguarded for future generations.

Sub-goal 4 Production of knowledge of the Vestfold Ship Burials
New expertise on the *Vestfold Ship Burials* shall be gained through scientific research and the transfer of traditional crafting skills.

The first generation management plan has the objective of laying the foundations for planned, long-term and predictable regional and local management and development of the areas nominated for World Heritage status in keeping with the intentions of UNESCO's World Heritage Convention.

Paving the way for use
No policy has been devised on graduated or limited access to the ship mounds in the nominated area. The local population's use of the areas in both summer and winter strengthens the local underpinning and historical awareness of the symbolic and cultural values of the sites. The best foundation for long-term protection of the World Heritage values is an interested and involved local community who make use of the areas in a context that is meaningful in our time.

Dissemination strategies
Presentation strategies are based on the provision of knowledge, experience, participation and reflection through visits to the nominated areas, as well as through the establishment of a range of virtual presentations.

Development of expertise and strategies
One objective of the management plan is to pave the way for a long-term expansion of expertise and skills that will be presented on a local basis to tourists and other visitors. This will provide the best platform for future protection of the World Heritage values represented by the ship burials.

HYLLESTAD QUERNSTONE QUARRIES (7)

A declaration of intent was signed by the municipalities of Hyllestad, Horten, Sandefjord and Tønsberg, the counties of Sogn og Fjordane and Vestfold, the county governors and the Directorate for Cultural Heritage in June 2011, committing them to protect, promote and transfer the Outstanding Universal Values in the Hyllestad quernstone quarries and the Vestfold ship burials. (For the whole declaration, see the appended Management Plan for the Hyllestad quernstone quarries.)

Management Plan for the Hyllestad quernstone quarries
A management plan was prepared for the Hyllestad quernstone quarries in 2011 and revised in 2013. The plan clarifies the Outstanding Universal Value and other supporting values of the nominated property. A short résumé of the plan is given below.

Visions and overarching objectives
The overarching objective of the management plan is to protect the Outstanding Universal Value of the quarries which forms the basis of the nomination for World Heritage status. The production landscape within the property will be preserved for the future while securing, at the same time, the sustainable development of the area and the surrounding local community. The objective of the management plan is to ensure that the cultural heritage constituted by the quarries in the nominated property will be safeguarded within a vibrant local community at Hyllestad. The plan will ensure that these important cultural sites and monuments are not lost and that provision is made for the improved dissemination of cultural heritage values in the area.

The management plan describes the extensive quarry landscape at Hyllestad, presenting the various types of quarry as well as the geology. Focus is put on drawing attention to the World Heritage values in the production landscape as a whole, and the nomination and delimitation of the three nominated areas and buffer zone are presented and justified – in both the maps and the text. The management plan also provides a short historical overview

of the quernstone quarries and the activities there so as to create greater understanding of the cultural heritage and the Outstanding Universal Value. This forms an important basis for exercising good management and disseminating knowledge of World Heritage to the public.

Important objectives for this first generation management plan are to lay the foundations for planned, long-term and predictable regional and local management of the areas nominated for World Heritage status in keeping with the intentions of UNESCO's World Heritage Convention.

Both long-term (20 years) and short-term (five years) visions in respect of the nomination have been prepared in conjunction with representatives from the local environment and the municipality.

Short-term visions

Hyllestad will be developed into a national and international attraction for visitors, while reinforcing its local identity and roots. Good and simple visitor amenities will be provided so that Hyllestad will become an important destination with high-quality communication. The local people will be well informed and will take their role as hosts seriously, and the quernstone quarries will play a role in the development of identity and pride with regard to the coming generation.

In cooperation with the landowners, walking trails will be established within the nominated property, and signposts, maps and GPS will be in use. The local business sector will use the World Heritage status positively in order to stimulate sustainable development and growth within the local community.

The infrastructure – road and parking facilities as well as overnight accommodation – will be improved for the benefit of both local inhabitants and visitors.

Expertise within research, management and dissemination based on cooperation with Norwegian Millstone Centre, Sogn og Fjordane County Authority, University Museum of Bergen, the University of Bergen and the Geological Survey of Norway will be established.

Long-term visions

In 20 years' time, the production landscape will remain well preserved and the nominated property will be well-adapted for visits where this is appropriate, while parts of the area will remain undisturbed. The property will be examined and documented to a greater extent and archaeological and geological expertise related to the quarries will be extended. Norwegian Millstone Centre will be a well-functioning World Heritage centre. A visitor's centre will be established in connection with Millstone Park, and conference facilities and exhibition space will be available.

The established expertise within research, management and dissemination will be further developed. The collaboration with the other component parts will lead to internationally accepted best practice of site management and high quality research. Norwegian Millstone Centre will become an arena for national and international conferences within archaeology, history, geology and crafts.

This activity will lead to an increase in visitors within a living and sustainable local community. Overnight accommodation capacity will be improved and the facilities established for visitors will be well adapted to the landscape and building traditions in the area.

Safeguarding the World Heritage

A variety of instruments can be used to safeguard the World Heritage. National statutes and regulations apply and, consequently, it is the Norwegian administrative system that controls the management of the World Heritage area. The management plan gives a brief overview of the legislation as well as the administrative responsibility at a national, regional and local level.

The management plan also provides information about potential sources of finance and project funding that can be applied for in connection with the care and management of the World Heritage. Various financial resources are available at municipal, regional and national levels, and grant schemes apply to both the nominated property and the buffer zone.

World Heritage Site status and visitor attraction value

Dealing with visitors is a key aspect of the management plan, and an active presentation to the public shall ensure that attention is drawn to the cultural heritage values of the World Heritage Property. Further development of the range of options for travel and tourism in Hyllestad is an important objective for the municipality, and World Heritage status will facilitate strong marketing both nationally and internationally. This brings both opportunities and challenges, and it is important to be well-prepared. Measures for coping with visitors and regulating access to the World Heritage areas must be in place.

The location and vulnerability of some of the quernstone sites within the nominated property make it important to grade accessibility to the nominated property. Concern

for both the cultural heritage and the local residents at Hyllestad means that some parts of the nominated property should be subject to the increased regulation of visits. Therefore, different targets must be set for the various World Heritage sites regarding activities, information and accessibility. This will make it possible to protect vulnerable areas, while other areas can be more accessible and open to the public.

So far, Millstone Park has been adapted for the public. Today this is the most important area for the dissemination of the history of quernstones, and further focus on visits and communication in this area will be necessary.

Some degree of regulation of visits to the nominated areas at Rønset and Sæsol will be essential, because of concern for the cultural heritage and the local residents, as well as the capacity of the infrastructure and parking.

The management plan presents specific measures on how this can be achieved. To be better able to regulate visits to the various areas of the World Heritage, measures such as signposting, walking trails, maps, guidebooks and organised tours will be necessary.

Factors affecting the nominated property

The management plan focuses on potential factors and challenges that may affect the nominated property.

The challenges in conjunction with development features and land use, mainly in the buffer zone, are particularly linked to physical encroachments such as the building of dwelling houses, cabins/holiday homes and perhaps industry in the form of the extraction of raw materials and a mini hydro-electric power station. It is very likely that large parts of the quernstone quarries are covered by vegetation today and are therefore not visible. These may come into conflict with new building activities and industrial enterprises.

Continual care and maintenance of the World Heritage Property will be required, and the management plan shows both the needs and the planned measures. The nominated areas at Hyllestad are situated in outlying areas where the greatest challenge will be regrowth of vegetation affecting the entire area, as well as the cultural monuments and sites. Thinning of forest and clearing of bushes and other vegetation must be carried out annually. In a number of cases, agriculture is the main contributor to the care of the cultural landscape. Through daily operations, agriculture helps to preserve the landscape and keep it alive. It will be important to encourage farmers who are still operating their farms to keep up their work through grant schemes and administrative measures.

5.F
SOURCES AND LEVELS OF FINANCE

The States Parties of *Viking Age Sites in Northern Europe* each bear the costs of their representatives and their work connected with the Steering Group.

The overall cost of the Secretariat and other common expenses are covered equally by the States Parties.

The available budget is sufficient to manage the nominated World Heritage property.

ÞINGVELLIR (1)

THE NATIONAL TREASURY BUDGET

Funding is based on an annual plan for administrative costs for the national park as a whole, divided into two parts:

- Fixed-sum funding: covers the cost of wages, daily operation of the national park and routine management. In 2013 the sum was 108 million ISK (660.000 €).
- Funding for specific projects: varies from year to year depending on what is to be undertaken, this could include restoration or new development.

SALES

The park also receives income from campsite charges and the sale of angling permits, leases of holiday-house plots, books and souvenirs.

JELLING (2)

The Master Plan of 2009 relating to Jelling has received grant funding to enable changes to conditions in the town area, as well as securing of the monuments. These developments revolve around the concepts of

1. Cooperation
2. Balance between everyday life and tourism
3. Interactive communication
4. Focus on quality and authenticity
5. Conservation and protection

A.P. Møller and wife Chastine Mc-Kinney Møller's Foundation for General Purposes has donated 70 million DKK (9.4 mill. €) to help realise the master plan for the Jelling monuments and 17 million DKK (2.3 mill. €) for demolition of the present parish community centre – a dominant building in the palisade area – and to build a new one outside the monument area. The Danish State has provided 25 million DKK (3.35 mill. €), while Vejle Municipality has contributed 28 million DKK (3.8 mill. €) to realising the master plan.

These donations and contributions are helping to create an environment in which the requirements of the monuments and the information that needs to be mediated will be met. It will also create an environment in which local, national and international interests will be combined and

where visitors are able to enjoy numerous different aspects of the site, for example the intention to create a park area around the monuments, as described in Section 5.d. On this basis, it is estimated that the available funds are adequate.

Daily management is carried out by staff members of the Jelling church authorities which receive financial aid from both the state and the municipality. The annual grant from the Deanery of Vejle includes additional funding of 100,000 DKK (13,000 €) for maintenance around the Jelling monuments and to secure their current state of preservation. Preservation and conservation are aided by the Danish Agency for Culture, the National Museum of Denmark, Vejle Museum and key actors in their field of expertise.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

The day to day running of Aggersborg is taken care of by staff of the Danish Nature Agency, see Annex 5f_a1.

FYRKAT (3.2)

The day to day running of Fyrkat is taken care of by staff of the Historical Museum of Northern Jutland, which receives financial support from both the Danish State and Mariagerfjord Municipality.

If Mariagerfjord Municipality wishes to carry out maintenance operations in the area, these take place without any expenses being incurred by the site owners. The municipality has earmarked an annual sum in its budget for nature preservation; in 2010 this was c. 800,000 DKK (107,300 €).

TRELLEBORG (3.3)

The day-to-day running of Trelleborg Viking Fortress is funded primarily by Slagelse Municipality and the National Museum of Denmark. Special initiatives encompassing research projects, major exhibitions, publications and other interpretation and presentation work have, for many years, been financed primarily by external funding, but also partly by the museum's own resources.

A new exhibition building project, New Trelleborg, is planned jointly by Slagelse Municipality and the National Museum of Denmark. Slagelse Municipality has earmarked 25 mill. DKK (3.4 mill. €) to get the project started. Realisation of the project is dependent on external funding.

Examples of research projects include *The King's Fortresses*, which is funded by grants from foundations, and the reconstruction of the smithy on the museum area at Trelleborg, which is financed by the Danish Agency for

TABLE 5.4 *Financial sources for management, protection and maintenance of Hedeby and Danevirke in 2010.*

INSTITUTION	SUM IN EURO
State Archaeological Department ALSH	85,000
Foundation of Schleswig-Holstein State Museums Schloss Gottorf (Research) Viking Museum Hedeby	120,000 592,000
Sydslesvigsk Forening SSF (Danevirke Museum)	230,000
Ministry for Energy Transition, Agriculture, Nature and the Environment MLUR	18,000
District Schleswig-Flensburg	13,000
Amt Haddeby	5000

Culture. A further example is the research, interpretation and presentation project *Belmont – Investigations of Viking Age Farms and Settlement Pattern of the Vikings in the North Atlantic*, funded by various Scottish authorities together with the Danish Agency for Culture.

HEDEBY AND DANEVIRKE (4)

Included in this overview are only those monies which can be directly assigned to the regular management of the Hedeby and Danevirke monuments. Pro rata works by the participating institutions have to remain unconsidered. Furthermore, a substantial part of the work (especially maintenance and monitoring) is carried out in an honorary capacity and through integrative measures for the unemployed. The financial sources available are adequate for the management of the nominated property.

The financing of maintenance and management of Hedeby and Danevirke is shared by the agencies responsible for public tasks within the scope of the management plan, as well by the property owners.

Special projects play an important role in the implementation of elaborate proposals concerning the monuments. Of special significance for the financing of such projects are the support programmes of the State of Schleswig-Holstein, the Federal Government of Germany and of the EU, as well as local cultural trusts.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

As far as the local government budget allows, funds for maintenance of the sites are provided within the annual local government budget. Maintenance of sites not owned by the local government presents a special problem, because the local government is not allowed to invest its resources directly in private property. Here, it is very important that the local government is able to cooperate with the owners. When drawing up binding local government regulations governing the way in which the territory should be used, a mechanism must be provided for demanding responsibility from the owner for management of the territory they own. Another solution would be to announce a project competition for a particular purpose, which could stimulate and support the owners' ability to ensure adequate management of the sites.

THE VESTFOLD SHIP BURIALS (6)

NATIONAL SCHEMES

The Directorate for Cultural Heritage has its own grant scheme for sites with World Heritage status over the central government budget.

The Directorate for Cultural Heritage also has a grant scheme for the management of automatically protected cultural heritage. The applications are sent to the county authority, which assesses and prioritises the applications before forwarding them to the directorate for further processing. Applications can also be made for grants for maintenance and dissemination activities and the like.

The Norwegian Cultural Heritage Fund comes under the Ministry of Climate and Environment. The fund has financial resources that can be devoted to measures within the entire cultural heritage field targeted towards private owners and NGOs that manage protected cultural monuments and sites and cultural environments. Sites with World Heritage status are included in this.

REGIONAL AND LOCAL SCHEMES

The county authority is responsible for preparing and implementing a regional environmental programme for agriculture. Here there are assistance schemes in which the objective is to stimulate active agricultural operations that safeguard and develop the open cultural landscape. The county governor also deals with applications for grants for selected cultural landscapes in agriculture.

In accordance with the regulations concerning Grants for Special Environmental Initiatives in Agriculture, special subsidy arrangements are available with the aim of protecting and developing an open cultural landscape. It is possible to apply for funding for the management of cultural heritage sites (Municipal SMIL Funding – special environmental measures in agriculture). Possible measures are to make the cultural heritage visible through haymaking, clearing and grazing. The municipality makes the decision on financial support.

Vestfold County Authority offers annual direct grants to the nominated sites for care and maintenance. The municipalities and Vestfold County Museums contribute with

grants for care and maintenance. Moreover, grants are offered by the county authority that can be used, for example, to prevent deep ploughing in areas where it is assumed that there are archaeological remains in the soil.

TABLE 5.5 – *Annual grants for maintenance, NOK (€) in 2011.*

BORRE MOUNDS	OSEBERG MOUND	GOKSTAD MOUND	TOTAL
472,000 (58,000)	40,000 (5000)	35,000 (4300)	547,000 (67,300)

THE HYLLESTAD QUERNSTONE QUARRIES (7)

NATIONAL SCHEMES

The same national schemes as those for Vestfold ship burials also apply to the Hyllestad quernstone quarries.

REGIONAL AND LOCAL SCHEMES

As part of the Museums in Sogn og Fjordane, Norwegian Millstone Centre receives annual grants from Hyllestad municipality, Sogn og Fjordane County Authority and the state to finance the operation and management of Millstone Park. In addition, as the owner of Millstone Park, Hyllestad Municipality grants funds directly for the management of the park when needed. The amount varies, and grants received and used in 2011 are shown in table 5.6."

TABLE 5.6 *Grants in NOK (€) received in 2011 for the Hyllestad quernstone quarries.*

Activity and investments costs 2011	Hyllestad Municipality: Plan and Development	Hyllestad Municipality: Hyllestad Primary School	Norwegian Millstone Centre	TOTAL
Activity	10,000 (1250)	15,000 (1850)	20,000 (2500)	45,000 (5550)
Investments	375,000 (46,300)			375,000 (46,300)
Total	385,000 (47,550)	15,000 (1850)	20,000 (2500)	420,000 (51,900)

5.G
SOURCES OF EXPERTISE AND TRAINING IN CONSERVATION AND MANAGEMENT TECHNIQUES

The management of *Viking Age Sites in Northern Europe* can consult experts on site management from the involved national authorities, including the National Commissions for UNESCO and ICOMOS. The Steering Group will facilitate exchanges of experience between all parties involved in site management.

ÞINGVELLIR (1)

The director of the Þingvellir National Park is a geographer and a planner with an extensive background in management. He has also received training and attended courses in the field of conservation. The interpretive manager has a BSc in Geography and MLA as a landscape architect and a solid background in running the park. He also has training in nature protection, forestry and soil conservation. The head warden has attended diverse courses in nature conservation and taught classes on the park warden course for the Nature Conservation Agency. He has also studied public administration at the University of Iceland.

The Cultural Heritage Agency of Iceland, the National Museum of Iceland, the University of Iceland, the Icelandic Institute of Natural History and the Environment Agency of Iceland have highly qualified experts, architects, historians, archaeologists, natural scientists and other specialists at hand and provide assistance and expertise for Þingvellir National Park when required. They participate when needed in setting up research and conservation plans at Þingvellir according to their specialist fields. It is the Þingvellir National Park's policy to hire local people as staff as far as possible. They play an important role in maintaining knowledge of the natural processes in the Þingvellir Park.

JELLING (2)

Sources of expertise and training in conservation and management are being implemented from many different areas. Local experts connected to the component part of Jelling are located at Vejle Museum and at Royal Jelling. Vejle Museum, the National Museum of Denmark and the Danish Agency for Culture, advise the staff members of Royal Jelling and of the Deanery of Jelling on conservation and management techniques in order to secure the component part. The rune stones are specially monitored by experts from the National Museum.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

The Danish Nature Agency ensures regular continuing training of its staff in the maintenance of natural amenity areas and ancient monuments.

FYRKAT (3.2)

The Historical Museum of Northern Jutland has academic staff appointed within the fields of archaeology, history and ethnology; further to these is a conservation team. All staff members receive supplementary training on a regular basis. The museum has an ongoing collaboration with the involved municipalities, the Danish Agency for Culture, the National Museum of Denmark and the University of Aarhus with respect to various professional, conservation and management aspects of the daily work.

TRELLEBORG (3.3)

At Trelleborg Viking Fortress, the museum curator has a degree in prehistoric archaeology from the University of Copenhagen and is also a member of the university's corps of examiners. All members of staff receive regular supplementary training. The museum has an ongoing collaboration with the involved municipalities, the Danish Agency for Culture, the National Museum of Denmark, the University of Copenhagen and Roskilde University with respect to various academic, conservation and management aspects of the daily work.

HEDEBY AND DANEVIRKE (4)

The staff members of the institutions which undertake important tasks in the protection, conservation and presentation of the Hedeby and Danevirke monuments are, in terms of technical training, all well-trained to very well-trained. The state of knowledge about the monuments and their maintenance has grown over the decades.

The maintenance of the monuments is carried out by a non-profitmaking company, by a person working on an honorary basis and with one foreman.

In the supreme authorities for monument preservation and nature conservation, Schleswig-Holstein's State Archaeological Department (ALSH) and the State Department for Agriculture, Environment and Rural Areas (LLUR) academically-trained scholars and specialists of international renown are in charge of the professional issues. Numerous academic works about the monuments have been produced by these institutions. For planning tasks, additional experts with a university education in the planning sector are available. The lower public authorities (local services) with responsibility for monuments and nature conservation are part of the district administration and their qualifications are of a broader disposition. The personnel of the municipal agencies are also qualified for administrative tasks by way of corresponding technical training or university studies or, as the case may be, have appropriated the required proficiency through advanced training. Likewise the staff of the Local Monument Protection Service has also acquired qualifications for monument preservation within the framework of advanced training and long years of experience. The experts who work in the Local Nature Conservation Service have been specifically trained for these tasks through their third level studies.

The heads of the museums are academically trained and experienced experts working in the sectors of archaeology (Danevirke Museum) and pedagogics (Viking Museum Hedeby) who have extensive knowledge about the monuments and the best way to communicate this knowledge. Viking Museum Hedeby is part of the State Museum of Archaeology, an arrangement which fosters intensive academic exchange. Additional academic staff or staff whose task it is to impart knowledge are employed in the museum as freelance visitor guides or have temporary employment within the framework of projects. All the guides are trained in the Viking Museum Hedeby and participate in an advanced training course at least once a year.

The State Museum of Archaeology at Schloss Gottorf together with its staff is the most important source of academic expertise on Hedeby and Danevirke. It is from here that for years now the most important contributions to research on Hedeby have been published within the scope of scientific journal series and other publications.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

On the basis of a local government decision, a Cooperation Council is being created for the protection and development of the Grobiņa archaeological heritage, by inviting representatives from Grobiņa Municipality Council, the State Inspection for Heritage Protection, Liepāja City Council, the Latvian National Commission for UNESCO, the Latvian Association of Local and Regional Governments and the National History Museum of Latvia. Scientific expertise for studying and conserving the Grobiņa heritage values is also provided by Liepāja City Museum.

The task of the council will be to establish an advisory and opinion-coordination platform, which will not only allow agreement in discussions upon the best heritage preservation and development scenario, but will also give practical advice and demonstrate best practice for those employees of the local government who are directly involved in ensuring the management and development of these territories. In the future development of the site it is also planned to invite international heritage experts.

THE VESTFOLD SHIP BURIALS (6)

AVAILABLE EXPERTISE

TABLE 5.7 – *Expertise by institution/organisation.*

INSTITUTION	SUBJECT-RELATED EXPERTISE	TECHNICAL EXPERTISE	MAINTE-NANCE
Directorate for Cultural Heritage	Archaeology, cultural heritage management, knowledge about the World Heritage Convention	Conservation, maintenance	
Museum of Cultural History, University of Oslo	Archaeology, research skills	Conservation	
Cultural Heritage dept., Vestfold County Authority	Archaeology, management, research skills, digital presentation, knowledge about the World Heritage Convention	Production of information, signposting, maintenance of the forest/felling, specialist technological skills	Care and maintenance
Municipalities	Planning skills, nature and environment, academic cultural competence	Agricultural and forestry management	Care and maintenance, refuse collection and disposal
Vestfold County Museums	Archaeology, communication skills – public/children and young people	Crafts	

TABLE 5.8 *Available competence at a national, regional and local level*

INSTITUTION	PROFESSIONAL COMPETENCE	TECHNICAL COMPETENCE	PRESERVATION
Directorate for Cultural Heritage	Archaeology, management of cultural monuments and cultural environments, knowledge of the World Heritage Convention	Management	
University Museum of Bergen	Archaeology, research competence	Conservation	
Bergen Maritime Museum, University of Bergen	Marine archaeology, research competence	Conservation	
Sogn og Fjordane County Authority	Archaeology, management of cultural heritage, knowledge of the World Heritage Convention and experience from other World Heritage Sites in the county (Urnes stave church, West Norwegian fjords – Geiranger fjord and Nærøy fjord)	Production of information, forest management/logging	Management and maintenance
Hyllestad Municipality	Area planning, nature and environment	Management of agriculture and forest	Management, maintenance, preservation, waste disposal
Hyllestad Quernstone Centre	Information and dissemination to public, teaching programme for schools, developing and maintaining national and international cooperation and networks, research	Handicrafts, organising seminars	Care and management, preservation

5.H
VISITOR FACILITIES AND INFRASTRUCTURE

ÞINGVELLIR (1)

Þingvellir National Park, which is open to visitors all year round, is one of the most popular tourist destinations in Iceland and has long been so. Tourism at Þingvellir is characterised by most visitors coming there for short visits.

TRAFFIC AND ROADS IN THE NOMINATED COMPONENT PART AND BUFFER ZONE.

The nominated area has two road sections maintained by the Public Roads Administration. These roads are intended for free public travel and maintained through state funds. All roads inside the national park are paved, and have a speed limit of 50 kph. Road 36 runs through the national park and is classed as a major state road. The intersection of roads 36 and 52 at Þingvellir is located by the Information and Service Centre. Road 36 connects higher-lying communities of the capital city area with the Árnessýsla district, while road 52 connects Þingvellir with Lundarreykjadalur in the region of Borgarfjörður.

HOTEL

There was a hotel within the proposed nominated area. The hotel was burned to the ground in a fire in the summer of 2009. No decision has yet been taken about the future use of the lot on which the hotel was located. The hotel was first built in 1899, it then stood on the north side of the ancient assembly grounds at Kastali (Castle), but was moved south of the river Öxará in 1929. Subsequently, the hotel was enlarged and had thirty rooms, a restaurant and facilities for meetings and other gatherings. The Icelandic State owned the hotel but hotel operations were leased out.

VISITOR CENTRE

The Visitor Centre of Þingvellir National Park was opened in 2002 and is situated right beside the viewing point on Hakið, where visitors commence their walk down into Almannagjá. The exhibit in the Visitor Centre is based almost entirely on multimedia technology, presenting the history and nature of the Þingvellir region. Visitors can select audio or screen texts in five languages (Icelandic, Danish, English, French and German). At the Visitor Centre, a film is shown which was taken under the surface of lake Þingvallavatn. Admission is free. There are plans to enlarge the Visitor Centre, and parking adjacent to it, in order to provide a better service for growing numbers of tourists.

CAMPSITES

There are two campsites in the national park/ buffer zone. The larger one is located by the Information and Service Centre and has facilities for camper vans, tent trailers and tents. The smaller campsite, situated by the lake Þingvallavatn at Vatnskot, also takes camper cars, tent trailers and tents. A stopover for those travelling on horseback is provided at Skógarhólar, on the periphery of the national park and provides both bunk accommodation and a campsite for riders.

PATHWAYS

Footpaths in the national park have been marked and improved to make it convenient for people to acquaint themselves with the history and nature of Þingvellir. Pathways through the national park can be divided into two categories, those in the assembly grounds and those in other areas. In all, some 3 km of paths have been laid through the assembly grounds and in the immediate vicinity, all paved with gravel, although wooden platforms are also used in Stekkjargjá on the way to the waterfall in the river Öxará (Map 9). Outside the assembly site, about 11 km of footpaths have been paved with gravel. Other pathways within the park – mere trodden trails – were used for centuries by people living on the small farms in the area of Bláskógahraun, now inside the park boundaries. Stakes now mark these trails so that people will stay on them and preserve them.

DIVING

Diving in the Silfra fissure has become very popular in recent years. Diving is permitted on two submerged fissures in the national park, Silfra and Davíðsgjá. Silfra is one of the best places for diving in Iceland and many people find the fissure unique on an international scale. The Silfra fissure is located just outside the proposed nominated area, to the southeast. The reason for its fame is the astounding visibility in the clear, cold groundwater and the magnificent surroundings.

Divers have to fulfil all regulations and conditions regarding qualification and equipment for diving. They must abide by all rules concerning diving and agree to respect the national park regulations. It is prohibited to dive alone, to enter caves while diving and to dive to a depth greater than 18 m. Diving is entirely at the divers' own risk. A few dive operators offer tours in the fissures.

RESTROOM FACILITIES

Toilets are provided at several points for visitors to the proposed nominated property. At the Visitor Centre there are 18 toilets, including two for the physically disabled. In the immediate vicinity, within the buffer zone, the Information and Service Centre has 14 toilets, besides two for the physically disabled. There are two campsites with a service building with toilets and showers for visitors, along with a washing machine. Each campsite has two toilets and sinks with cold water. Skógarhólar has three toilets and two showers.

PARKING

In the environs of the assembly site there are four main car parks where it is possible to leave cars and walk to the site. Alongside the circular route through the national park/ buffer zone, there are frequent places to pull over and park one or two cars.

EMERGENCY ASSISTANCE

First-aid courses are held every spring for park personnel, reviewing the basics of first aid. In the event of serious injuries or accidents, notification is sent through he 112 the National Emergency Number Which represents all the response parties to all emergencies. The response time for emergency crew is about 30-40 minutes.

JELLING (2)

In 2012, Vejle Municipality and the National Museum of Denmark received grants for the expansion of Royal Jelling and renewing the exhibitions. The expansion will include the construction of a platform on the roof of the building which allows the visitors to overlook the whole monument area. Consequently, the number of visitors is expected to increase.

The museum Royal Jelling is situated in the palisade area and contains a range of visitor facilities – restaurant, shop and toilets. Car and coach parking is outside the monument area close to the museum and Jelling train station lies c. 180 m from the monument area.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

In addition to information in three languages and pictures of the construction of the fortress, its history etc., the exhibition building also has disabled toilet facilities. The exhibition is open all year round. A counter records the number of visitors to the rampart area.

FYRKAT (3.2)

About 1 km from the fortress, a visitor centre has been established – Fyrkat Viking Centre. The latter comprises a reconstruction of a Viking farm from the time of the fortress, consisting of about a dozen buildings of various sizes. Various activities show daily life in the Viking Age. At Hobro Museum, located c. 2 km from the fortress, archaeological finds from the Fyrkat site are exhibited.

The Historical Museum of Northern Jutland is planning to establish a visitor centre/ museum in Fyrkat Møllegård, a listed building with a watermill next to the site.

TRELLEBORG (3.3)

The museum contains exhibition areas, offices, a reception with ticket sales and shop, café, public toilets etc. There is a car park for buses and cars as well as a minor area with some small, reconstructed Viking Age buildings. The exhibition, in Danish and English, deals with the Viking Age, Trelleborg's history and the fortresses

and their function. In addition to posters and models, original finds from the excavations in the 1930s and 1940s are exhibited. There is an impressive view of the ring fortress from the museum building. The museum is open to the public during the season which runs from 1st April to 30th October.

The Museum at Trelleborg (now Trelleborg Viking Fortress), in addition to the actual ring fortress with associated outer enclosure, also comprises an early reconstruction of a Trelleborg longhouse (built in 1941), outdoor public toilets, a tool store, a poster exhibition and an early model of the fortress. All the above-mentioned facilities are located directly to the east of the scheduled area with the ring fortress.

A system of paths leads the public from the museum building to the ring fortress and the reconstructed Trelleborg house.

The reconstructions form the framework for the museum's re-enactment activities which each year attract visitors from both home and abroad. Trelleborg Viking Fortress therefore offers interpretation, presentation and education "on location", i.e. in one of the places where the Vikings lived and fought more than 1000 years ago. The interpretation and presentation section at Trelleborg offers a wide range of exciting educational activities and experiences for all children and adults.

General visitor numbers for Trelleborg have for many years been around 30,000 annually.

HEDEBY AND DANEVIRKE (4)

Hedeby and Danevirke are well served by road, and multifaceted and multilingual information is available, concentrated primarily in the two communication centres, namely Viking Museum Hedeby and Danevirke Museum. Both centres have their main topics and complement each other as regards content. Alongside this, information about the monuments is provided on-site in several languages and in various ways such as through signposts, guided tours, moderated programmes and audio guides. This type of interpretation will also be developed further. Pressure on the monuments will be better controlled by means of a standardised visitor control system within the scope of the management plan. At present, the visitor focus is on Viking Museum Hedeby outside and the adjacent reconstructed Viking houses within the nominated property. The original structures themselves are only walked upon in a few places and the visitor intensity is low. Where the paths are maintained in the appropriate manner, the number of visitors on the walls themselves could be significantly increased without the substance of the monuments suffering further damage. A basic principle here is the continued encouragement of visits to the monuments so that the guests are offered an interpretation at the original cultural monuments which is as authentic as possible.

Viking Museum Hedeby was provided with an elaborate new permanent exhibition in 2010 and is the most important tourist magnet for the Hedeby and Danevirke monuments. It is planned to extend and renew Danevirke Museum and its exhibition.

Tourist services, such as accommodation, restaurants and car parking are all outside the nominated property. Toilets can be found at the reconstructed Viking houses inside the nominated property. Both museums are equipped with adequate car and bus parking facilities and toilets outside the nominated property. Viking Museum Hedeby has a restaurant. The environs of Hedeby and Danevirke feature a substantial number of overnight accommodation facilities and restaurants, especially in the city of Schleswig and town of Eckernförde just outside of the buffer zone. Most accommodation is in private rooms or apartments. A few larger hotels capable of accommodating tourist coaches can be found in the towns. Other facilities like hospitals and other medical treatment, shopping, police etc. are also located in both towns.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

At the moment the capacity of these historic sites for dealing with an increasing visitor/ tourist load is very limited, therefore the local municipality has set the goal of increasing the tourism flow gradually while, at the same time, investing in the development of tourism infrastructure. Up to now, several projects have been carried out at the hillfort and Medieval castle – a promenade for pedestrians, a cycleway, car parking, benches and lighting. Altogether, these activities have created an attractive environment with the preserved historic landscape also made accessible to disabled people.

Informative signs have been displayed at all the nomination objects. These are intended to be equipped with QR codes and a respective digital information platform. The tourism development plan also envisages different

marketing activities, for example brochures and maps, souvenirs, outdoor media booths, Internet webpage development, various events aimed at raising awareness and popularisation, as well as seminars, conferences and exhibitions. Great attention will be paid to further scientific research into these objects and developing the possibility of exhibiting the potential new historical evidence. The plans for the future also include the creation of a dedicated museum for the nomination objects using contemporary digital technologies.

THE VESTFOLD SHIP BURIALS (6)

The facilities at Midgard Historical Centre include exhibition areas, a lecture room and a cafeteria. Viking-related literature in several languages and souvenirs can be bought, and brochures and other information material are available during the centre's opening hours. Paths with a firm surface have been laid inside the nominated area as part of the work to comply with the requirement for universal access, and work in this area continues according to the goals set out in the Management Plan for the Vestfold Ship Burials. In Borre Park there are toilets that are open to the public during events. Guided tours to the area are available every Sunday in the high season, and can otherwise be arranged with Midgard Historical Centre. A virtual portrayal of the Viking Age has been developed and tested in cooperation with the Department of Media and Communication, University of Oslo, and further development of this is planned.

There are no permanent guide facilities at either the Oseberg or the Gokstad mounds. However, a downloadable dissemination app is available and new strategies for on-site dissemination through signage and sound clouds are being developed.

A car park has been established for the Midgard Historical Centre and extension and upgrading of this is planned. The parking capacity at the Oseberg mound is at present somewhat limited. No public facilities have been established in connection with the property. However, measures to ensure universal access to the mound itself, in the form of paths with a firm surface, are currently being prepared. At the Gokstad mound there are no public facilities, such as toilets or the like. At present, steps are being taken to ensure universal access to the property and the mound. The car park has a relatively small capacity (25 private cars).

FIGURE 5.4 *Reconstructed Viking Age houses in Hedeby.*

THE HYLLESTAD QUERNSTONE QUARRIES (7)

A culture trail has been established through parts of the nominated area at Myklebust – Millstone Park. Today this is the most important area for disseminating the history of quernstones. To a large extent the park appears as a miniature version of the extensive quarry landscape and gives a good, representative picture of the production. Millstone Park is situated beside the busiest main road leading to the centre of Hyllestad and is therefore the first thing encountered by visitors to Hyllestad. The area is easily accessible from the road and the car park.

Millstone Park is staffed during opening hours in the summer – from approximately 15th June to 15th August – and during this period visitors are offered guided tours around the park. An activity arena with houses and equipment is located outside the actual cultural heritage area in Millstone Park. This is used in activity-based communication, whereby visitors can first observe and then try stone cutting, working at the forge, using quernstones and the like. This is a splendid introduction to a visit in the quarries, and also to the history of quernstones and the activities that were once carried out in the area.

Two cargoes of quernstones, from two shipwrecks in Nordhordaland, are displayed in Millstone Park. This draws attention to the maritime aspect of the quarries and sets focus on shipbuilding technology, transport routes and bulk trade.

Millstone Park is also the area that is best suited to be designed for universal access. There is a short distance from the road and the car park to the quarries, and the specially-adapted walking trail is easy and suitable for visitors of all ages.

5.I
POLICIES AND PROGRAMMES RELATED TO THE PRESENTATION AND PROMOTION OF THE PROPERTY

Policies and programmes related to the presentation and promotion of the nominated property *Viking Age Sites in Northern Europe* will be developed by the Steering Group.

ÞINGVELLIR (1)

One of the characteristic features of Þingvellir is the very small impact that the modern age has had upon it. A visitor stands in the same surroundings as past generations; these are the same cliff walls, mountains, water, sky and atmosphere as in days of yore. Visitors to Þingvellir can experience the major events which once occurred and still occur there. It is the policy of the national park administration to preserve these special characteristics of Þingvellir, with an emphasis on presenting the cultural and natural values of the area, while at the same time creating a framework for ensuring their protection. The most important area with respect to culture is that of the innermost assembly site and its nearest surroundings with Almannagjá and Lögberg. As for nature and the treasures that it enshrines, there is no single location which is exceptional, because it is the variety characteristic of the entire area – its geology, landscape and biosphere – which lends it value. The general plan for presenting these characteristics is to encourage high-quality cultural and nature tourism, with low-key information at the assembly site. The emphasis is on high-quality information service at two locations: in the Visitor Centre at the top of Almannagjá and in the Information and Service Centre. Low-key hiking paths are being provided at the assembly site, with bridges where needed to protect the archaeological remains. For the enjoyment of nature there are hiking paths within the park, mostly following old footpaths from the days of the Althing, and campsites at some distance from the Almannagjá-Lögberg site. Þingvellir National Park is included in most guide books dealing with places of interest in Iceland, and is one of the key sights visited during the most popular guided tour in Iceland, the ten-hour "Golden Circle", which is offered daily by many travel agencies from the capital city of Reykjavik all year round.

INTERPRETIVE PROGRAMME

The interpretive programme for the national park sets as its goal that visitors to Þingvellir have the opportunity of becoming acquainted with its unique history and nature. The national park employs an interpretive manager who is responsible, under the management of the director, for developing and directing interpretive issues. In 2011, some 4000 visitors were guided through the park under the supervision of its own personnel.

VISITOR CENTRE

The Visitor Centre of Þingvellir National Park is situated right beside the viewing point on Hakið, where visitors begin their walk down Almannagjá. The exhibit in the Visitor Centre is based on multimedia booths, presenting the history and nature of the Þingvellir area. Exhibition visitors can select audio or screen texts in five languages (Icelandic, Danish, English, French and German) and they are also available for larger groups on a bigger screen. Admission to the exhibition is free of charge, and centre attendance has remained good since opening. Visitor numbers are about 170-200,000 annually. There are plans to enlarge the visitor centre. These have been drafted and are being evaluated. More plans will be prepared during the next few years with respect to arrangements for the reception and servicing of tourists in the national park. The emphasis will be on extending the time they stay in the area and finding means of distributing them better throughout the region, offering organised recreation at more frequent points around the national park.

WALKS

Among interpretive activities in the national park, guided walks are the most popular. They are offered every day of the week during the summer season, from May to September. Thematic walks take place on Thursday nights, in which scholars are brought in from outside the park to lead walks entitled "Thursday Evening at Þingvellir". Experts, artists and authors come to serve as guides for an evening at Þingvellir. This has succeeded in increasing interest in the national park, manifested through added participation in its other informational activities and the attraction of visitors who do not attend weekend organised events and tours.

PUBLICATION OF BROCHURES

The national park has sponsored the publication of various materials presenting the history and nature of Þingvellir. All these brochures, and a map, are available at the National Park Information and Visitor Centre.

RECEPTION OF SCHOOL GROUPS

Every year, the staff of the national park receives over 2000 students at Þingvellir. While the students are of all ages, most are in the 5th-7th grades (having started school at the age of six). Visits by school groups are organised with reference to the subject matter and the national curriculum, with the groups who arrive receiving instruction in geology, hydrology, nature conservation, the ancient assembly grounds and the history of the Althing. These visits have gone well, and teachers have expressed great satisfaction with them.

THING PROJECT 2009-2012

Þingvellir National Park is part of the THING project (Thing Sites International Networking Group), which is an international project, funded by the Northern Peripheries Programme (NPP), focusing on linking and developing old assembly sites and with partners in Shetland, Orkney, Norway, Iceland, the Faroe Islands, the Highlands of Scotland and the Isle of Man. It is a three-year project (2009-2012) which aims to exchange knowledge and specify, develop and test new and improved services for sustainable management and business development at the Northern European Thing sites.

Through the project, information has been gained on many assembly sites throughout areas of Scandinavian influence by their common *ting*, *thing*, *ding* and *fing* place names.

Some examples include Tingvalla (Sweden), Gulating (Norway), Þingvellir (Iceland), Tinganes (the Faroe Islands), Tingsted (Denmark), Tingwall (Orkney), Dingwall (Highland), Tiongal (Lewis), Dingbell Hill (Northumberland), Tynwald (Isle of Man), Thingwala and Fingay Hill (North Yorkshire), Ting Moot (Cumbria), Thingwall (Merseyside and the Wirral), Thinghou (Lincolnshire), Thingoe (Suffolk), Thynghowe (Nottinghamshire), Fingest (Buckinghamshire) and Thingmote (Dublin).

JELLING (2)

Promotion of the Jelling complex, the state of the monuments and their symbolic and historical role in Europe, Scandinavia and Denmark, is naturally of prime interest to many of the involved parties. On a transnational level, the Danish Agency for Culture and the Danish State are interested in creating an understanding of the events that changed Scandinavia during the Viking Age. Extensive research has been carried out and numerous publications have been produced in this respect because of the central role played by Jelling in terms of both national and transnational interests. However, the main sources of information regarding the Jelling complex and its monuments are administered by Vejle Museum and Royal Jelling. Both Royal Jelling and the Jelling Parochial Church Council are producing a series of informative brochures and pamphlets regarding the Jelling complex and its monuments.

With the realisation of Local Plan 1150, whereby, among other things, the palisade and the stone setting were marked out, it is expected that the number of visitors will double, while the area will be incorporated into the infrastructure of the town to the same degree as at present. However, it is expected that the monument area outside the graveyard and the town will be used for recreation to a greater degree than at present. The doubling of the visitor numbers following the marking-out of the monument area is the condition from the Master Plan of 2009 that forms the basis for Local Plan 1150.The museum Royal Jelling will be the central source of information about the Jelling complex. Through guided tours, events and lectures, Royal Jelling provides information to a wide audience, and entrance to the museum is free. Guided tours around the

Jelling complex and information about its special position in Europe and Scandinavia can be obtained at Royal Jelling. There is, however, a charge for the services of a guide.

Inside Royal Jelling, educational information can be found in the large permanent exhibition, which deals with entire monument area together with, where possible, the results of new excavations at, and research into, the Jelling complex.

In 2012-14, communication work relating to the monument complex has been established by marking out the traces on the ground: the palisade, the stone setting and the outlines of the three houses.

The course of the palisade is marked horizontally with 2.4 m wide concrete slabs with drawings of the traces as they appear in the subsoil. The slabs are laid out across the ground immediately outside the preserved traces so the integrity of the latter is not compromised. The vertical height of the palisade is shown in selected sections using up to 3.6 m high concrete posts, in order to give an impression of the size and geometry of the palisade area.

Parts of the stone setting are marked with 1.2 x 1.4 m concrete slabs illustrating the missing stones – most lie horizontally on the ground, while others have been fixed at a slight slope, in cases where toppled stones were found. The slabs are placed so as not to compromise the traces of the missing stones.

The sites of three houses of Trelleborg-type are shown using concrete slabs laid directly on the ground. These show the traces of posts and walls recorded in archaeological excavations. The concrete slabs will not compromise the traces of the house constructions preserved in the subsoil.

In alterations to the museum Royal Jelling, a platform will be established on the roof of the building which will provide visitors with a view over the entire monument complex.

THE TRELLEBORG FORTRESSES (3)

The Trelleborg fortresses constitute an important element in the Danish Agency for Culture's updating of prehistoric monuments in Denmark – expressed in a tangible form via the project *The Prehistory of Denmark in the Landscape* – which has the aim of improving the presentation of sites from the prehistoric period by way of on-site signboards as well as through text, pictures and sound using digital platforms. The stories are presented on-site by way of a completely new national signboard concept which has been developed in conjunction with the Danish Nature Agency and the Danish Agency for Palaces and Cultural Properties. The signs give an account in Danish, English and German (on the island Bornholm also in Polish) of both the prehistoric period and the actual locality. In addition, a small guide symbol has been developed. The digital part of the project is accessible as a part of the Danish Agency for Culture's other presentation and communication projects and will be coordinated with the exhibition at the National Museum of Denmark.

The three ring fortresses are included in this project. At Aggersborg, the information boards will be renewed in 2014. At Fyrkat, several initiatives were taken in 2011-2012 – the information boards were renewed, the existing concrete marking of the postholes was restored and the access to the ramparts were renewed. At Trelleborg, the existing concrete marking of the postholes has been cleared of vegetation, the entrance to the fortress will be changed into a more authentic version and the information boards will be renewed.

THE PROJECT THE *KING'S FORTRESSES*

Between 2007 and 2009, in connection with the project *The King's Fortresses*, small excavations in the form of trial trenches were conducted at all three fortresses. The aim of these was to map possible links between the Trelleborg-type fortresses and the maritime environment and military naval power of the time. The excavations resulted in many new results relevant to an understanding of the earliest royal fortresses of the Viking Age (Dobat 2009, 2010; Dobat et al. 2009).

HEDEBY AND DANEVIRKE (4)

INTERPRETATION PLAN

Between the museums assigned with the presentation of the nominated property and the State Archaeological Department, a concept was agreed upon within the Site Management Plan of Hedeby and Danevirke, which addresses relevant key principles in the interpretation of the monuments on the ground and in the museums. In this concept, guidelines for networking and communication are formulated as are presentation methods and instruments

FIGURE 5.5 *The Main Wall at Danevirke Museum.* ©*Hans Haebler.*

and also target groups. The interpretation is thereby orientated on comprehensible quality criteria, standard and content, with the responsibilities and duties being regulated. Further participating parties, such as schools and tourism-related players, are being integrated into a network. The presentation should concentrate on the Viking Age as the central theme of the monuments and their significance within the context of Viking culture. At the same time, however, other important themes relating to the monuments are integrated, such as their significance in modern times, the surrounding natural environment and notably that of "the Danish Minority". This approach to presentation envisages the concentration of the multilingual and multimedia-based visitor information in the existing museums – Viking Museum Hedeby and the Danevirke Museum – with their adjoining external sections, whereas in the case of the interpretation, the monuments themselves, and experiencing them directly on-site (in the field), are of central importance.

TOURISM DEVELOPMENT PLAN

It is envisaged that within the scope of the Site Management Plan of Hedeby and Danevirke a cultural tourism-marketing concept will contribute to developing and marketing the monuments and, at the same time, control visitor movements, thereby minimising negative interventions with respect to the monument and nature. The Tourism Development Plan aims to create a cultural tourism brand, *Hedeby and Danevirke*, which should make the monuments and the region a tourism centre of excellence in Germany, with the theme of the Vikings. The marketing of the monuments will thereby be integrated into the region's existing tourism concept with Hedeby and Danevirke being incorporated as the driver for the domain of culture and interlinked with other themes. In the design of the infrastructure for tourism and tourism products related to the monuments, particular importance will be attached to high quality and sustainability. A system of certified partnerships with municipalities, enterprises and visitor guides ought to help in controlling tourism usage

and to achieve high standards as regards the world heritage competence, sustainable economic activity and cooperation within the region. The partnerships are intended to help raise the region's identification with the monuments and the aims of UNESCO.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

The draft of management plan was elaborated in 2013 in cooperation with Grobina Municipality and the State Inspection for Heritage Protection of Latvia. Public discussions on this draft document are planned within a local community and among researchers within the framework of the local spatial planning process. The next steps in its elaboration will consider various aspects of site management, including initiatives relating to the presentation and promotion of the property. Certain initiatives have already been undertaken at this regard.

In the summer of 2011, the local government installed informative signs in Latvian and English at the six cultural monuments included in the World Heritage nomination. In cooperation with students of the History and Philosophy Faculty of the University of Latvia, work is currently being done on the concept of interpretation and promotion of the Grobiņa archaeological monuments, and it is expected that, as a result of this, the informative signs will be supplemented with educational information for all visitors to these sites. The conclusions from this concept will be used in drawing up a communication plan and also a tourism development strategy.

From the perspective of tourism development, the potential involvement of these sites in tourism flows will be evaluated. For this purpose, the Grobina Tourism Development Strategy 2012-2017 (first draft) has been elaborated and delivered for the public discussion. It will be adopted in 2013-2014. Several tourism routes will be created as well as a tourism information system – internet site, booklets, interactive maps etc.

THE VESTFOLD SHIP BURIALS (6)

Norwegian World Heritage Sites have established the forum World Heritage Norway as a network which includes the sites that are inscribed on the World Heritage List. The network meets annually. The Nordic World Heritage network is the corresponding body at the Nordic level and also meets annually.

Over a number of years, Vestfold County Authority has targeted efforts to profile Vestfold as a Viking county. In the 2007-2010 Strategic Culture Plan for Vestfold, and also in the 2011-2014 plan, the Viking Age is a prioritised area with a separate sub-objective *Build the Viking County of Vestfold*.

No estimates have been made of the expected growth in use if the Vestfold ship burials were to be given World Heritage status. However, experience elsewhere indicates that it is likely that the number of visitors will increase somewhat. The management plan indicates three areas in particular that must receive further attention:

- *Adaptation for use* through increased parking capacity, improved quality of clearance and refuse disposal as well as improved public facilities such as access to toilets and water.
- *Increased monitoring of the areas* in order to register wear and tear, decay or littering, and to initiate appropriate countermeasures.
- *Development of presentation* strategies based on the fact that two of the sites are not staffed and do not have organised guided tours.

CHILDREN AND YOUNG PEOPLE

The Cultural Rucksack was established as a programme offered to all primary and lower secondary school pupils in Vestfold. It represents a broad and systematic initiative for presenting professional art and culture to all pupils. All pupils in the 6th grade take part in a day with a thematic focus on the Viking Age. In Tønsberg Municipality, a scheme was initiated in the 2011-2012 academic year for the presentation of Viking history based on the Oseberg mound to pupils at primary and lower secondary levels. In Sandefjord Municipality, Gokstad Primary School, with approximately 300 pupils, has an activity day at the Gokstad mound for all pupils every year. In addition, all 6th grade classes in Sandefjord have an annual Viking day at the mound.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

World Heritage Norway is an organisation representing all the Norwegian sites that are inscribed on the UNESCO list. The aim of the organisation is to promote the common

FIGURE 5.6 *Every year, hundreds of school children in 6th grade visit the Borre Field as part of the national outreach program of Cultural Rucksack. The educational project has been developed by Vestfold county authority and is organised by the Vestfold county museums. The children spend a day there experiencing the tastes, smells and handicrafts from the Viking Age.* ©*Arve Kjersheim, Directorate of Cultural Heritage, 2011.*

interests of the World Heritage Sites as well as to be an arena for development and management of the World Heritage in accordance with the UNESCO-convention.

SCHOOL PROJECT

The results of archaeological and geological surveys of the quernstone quarries, as well as studies of craft techniques, have been included in recent years as an educational programme entitled *Handlingsboren kunnskap* (Knowledge through action) in the Hyllestad school system. The quarries constitute a pedagogical arena whereby pupils at Hyllestad School move their classroom to the production landscape one day a week. In this manner the preservation and presentation of the quernstone quarries are brought in as a regular feature of the school system. This has ensured that the quernstone quarries and their history have been highlighted in a unique way with the integration not only of quernstone production, but also other related aspects of Viking Age society in the school syllabus. Through this teaching programme, Hyllestad School thereby plays an important role in identity building and in disseminating the history of quernstones locally. The quarries function as a portal for further knowledge and presentation of the Viking Age.

THE HYLLESTAD SEMINAR

An annual event in Hyllestad is the Hyllestad Seminar. Here, researchers into various topics and others with an interest in archaeology, geology and history meet. The aim of the seminar is to focus on the quarrying and other related topics, both in Norway and abroad, at the same time as highlighting the resources and values the quarries and their history constitute to the local community. The seminar is arranged by Norwegian Millstone Centre with *Kvernsteinslauget* (the Quernstone Guild) and *Folkeakademiet Hyllestad* (Folk Academy of Hyllestad) as co-arrang-

FIGURE 5.7 AND 5.8 *Knowledge through action for pupils at Hyllestad school.* © *Kim Søderstrøm og Jørgen Magnus, Directorate of Cultural Heritage.*

ers. In addition, a subject committee made up of researchers in the fields of archaeology, geology and history has been set up. The seminar receives support from the Sogn og Fjordane County Authority. The Hyllestad Seminar will play an important role when it comes to the presentation and promotion of the nominated property and it will continue to function as an arena for contact between specialists, researchers and others with an interest in cultural history, quarrying and the Viking Age as a period.

VISITORS

A further development of tourism in Hyllestad is an important goal for Hyllestad Municipality. The municipality supports Norwegian Millstone Centre financially with respect to arranging visitor activities in connection with Millstone Park. The park is open during the summer season and guided tours through the quarry sites are available. Focus on promoting the nomination is considered important.

5.J
STAFFING LEVELS AND EXPERTISE (PROFESSIONAL, TECHNICAL, MAINTENANCE)

Staff will be hired for the Secretariat of the nominated property. To begin with, it is expected that one person working at least half-time will be sufficient. This will be revised by decision of the Steering Group according to needs. The overall staffing levels, as well as the skills and training of the personnel, will be adequate in order to maintain the values of the nominated property. All the components parts, with the exception of the Grobiņa burials and settlements and the Hyllestad quernstone quarries, have long-established and adequate staffing structures appropriate to the needs of the individual component and these will be adjusted according to needs if necessary. Staffing for the Grobiņa burials and settlements and the Hyllestad quernstone quarries is still being developed since they are at an earlier stage of their development as heritage sites. .

ÞINGVELLIR (1)

Four permanent members of staff work at the Þingvellir National Park on a year-round basis. The director is in charge of day-to-day operation and finances. Working under him are the interpretive manager, head warden and a practical assistant, all of them residents in the municipality. From 1st April to 1st November, 10-12 seasonal rangers work in the park. They are responsible for supervision, interpretive services and minor maintenance work, together with other permanent employees. Experts on the conservation and preservation of archaeological monuments and sites are employed at the Heritage Agency of Iceland.

JELLING (2)

Training and education of the employees assures a competent and well-trained staff able to meet the expectations associated with the daily use and communication of the property. Annual training courses are currently offered to staff at Royal Jelling, in order to secure the best possible communication of the property and its component parts to visitors. Experts on conservation and preservation are employed at Vejle Museum, the National Museum of Denmark and the Danish Agency for Culture. Daily maintenance of the area is taken care of by full- or part-time employees with the necessary skills.

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

Daily monitoring of the ancient monument is carried out by a forester employed by the Danish Nature Agency in Thy.

Overall monitoring and administration of the scheduled ancient monument is carried out by a forest ranger employed by the Danish Nature Agency in Thy.

The forest supervisor at the Danish Nature Agency in Thy has overall responsibility for the scheduled ancient monument.

FYRKAT (3.2)

Daily monitoring of the ancient monument is carried out by a property manager at the Historical Museum of Northern Jutland.

Overall monitoring and administration of the scheduled ancient monument is carried out by the National Museum of Denmark and the Historical Museum of Northern Jutland.

Overall responsibility for the scheduled ancient monument: The National Museum of Denmark, which has delegated practical responsibility to the Historical Museum of Northern Jutland.

TRELLEBORG (3.3)

Daily monitoring of the ancient monument is carried by a property manager at Trelleborg.

Overall monitoring and administration of the scheduled ancient monument and the National Museum of Denmark's artefacts is carried out by the museum curator at Trelleborg and the representative for the National Museum.

Overall responsibility for the scheduled ancient monument: The National Museum of Denmark.

Overall responsibility for the museum: Slagelse Municipality and the National Museum of Denmark.

HEDEBY AND DANEVIRKE (4)

One person in the State Department of Archaeology of Schleswig-Holstein is specifically appointed to coordinate the management tasks as well as consultation with the transnational Steering Committee (Site Management Office).

The maintenance of the monuments is conducted by a non-profit-making company with a professional supervisor and a variable number of workers who are recruited within the framework of occupational integration measures. Two honorary custodians from Schleswig-Holstein's State Department of Archaeology attend to the monitoring of the monuments on the ground.

In the Foundation of Schleswig-Holstein State Museums Schloss Gottorf, to which Viking Museum Hedeby belongs, there are two academics employed for research and interpretation. Viking Museum Hedeby employs a director, six employees and three freelance workers, in addition to further freelance visitor guides. The Danevirke Museum employs an academic director as well as a variable number of employees in the ticket office and information sections.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

With regard to the site development, the supervisory, advisory and coordinator body in the local government will be the Cooperation Council which is currently being established. Political and administrative responsibility lies with Grobiņa Municipality Council. In the local government, there is one professional member of staff in charge of coordinating cooperation with the involved institutions and development of the management plan, another is responsible for technical execution of the necessary activities. Municipal Company Ltd. is involved in site maintenance and it carries out management and improvement of the sites. The Development Division of the local government has five people involved in the coordination of activities, attracting investment and implementing investment projects.

THE VESTFOLD SHIP BURIALS (6)

The Cultural Heritage Department at Vestfold County Authority has 12 experts responsible for the management and monitoring of the nominated component part. They are also responsible for the maintenance of the Borre Park. The day-to-day care and maintenance of the Oseberg and Gokstad mounds are undertaken by the municipalities.

Midgard Historical Centre at Borre (part of Vestfold County Museums) has a total of seven employees. The centre has teaching programmes for schoolchildren about the Viking Age sites in the county. It is open to the public all the year round and has a highly qualified staff which organises exhibitions, lectures and guided tours.

The Museum of Cultural History at the University of Oslo is responsible for research and archaeological excavations. There is no permanent staff specifically for the Vestfold ship burials at the museum, but the research project *Gokstad Revitalised* (2011-2014) is at present engaging top specialists on the Viking Age.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

Sogn and Fjordane County Authority holds the management responsibility for the nominated property at the local level. Hyllestad Municipality has the main responsibility for drawing up zoning plans – and thereby prescribing the use and protection of the physical surroundings. The municipality will follow national cultural heritage policies, and thereby has the responsibility for ensuring that the nominated property is safeguarded.

Norwegian Millstone Centre will be the central executive body in the management and preservation of the nominated areas. Moreover, the centre will play a key role in research, information and the presentation of the quernstone quarries as World Heritage.

Hyllestad School plays an important role in building identity and in providing a strong local base for the history of quernstones through its teaching programme.

MONITORING

6

6.A
KEY INDICATORS FOR MEASURING STATE OF CONSERVATION

All the component parts of the nominated transnational serial property *Viking Age Sites in Northern Europe* have monitoring schedules that contain indicators for measuring their individual state of conservation. Since the component parts of the nomination are of such varying type and occur within such different biological and geological environments, indicators measuring the state of conservation for each site can be quite different.

Each State Party is therefore responsible for an annual report to the Steering Group of *Viking Age Sites in Northern Europe* on the state of conservation of their sites, based on the monitoring detailed below. These reports will be kept by the Secretariat of the proposed World Heritage Property.

TABLE 6.1 *Key indicators for measuring state of conservation*

COMPONENT PART	INDICATOR	MONITORING METHOD	PERIODICITY	LOCATION OF RECORDS
1. Þingvellir				
	State of the Öxará riverbanks	Visual inspection of monuments	As required	Þingvellir National Park
	Condition of ruins in the innermost assembly site	Visual inspection of monuments	As required	Þingvellir National Park
	Appearance of footpaths through the assembly site	Visual inspection of monuments	As required	Þingvellir National Park
2. Jelling				
	Erosion due to increased precipitation	Visual inspection of monuments	When necessary, at least twice a year	Jelling Parochial Church Council
	Water and acid rain, impact on the church	Visual inspection of monuments	When necessary, at least twice a year	Jelling Parochial Church Council
	Animals and plant cover	Visual inspection of monuments	When necessary, at least twice a year	Jelling Parochial Church Council and Vejle Municipality

TABLE 6.1

COMPONENT PART	INDICATOR	MONITORING METHOD	PERIODICITY	LOCATION OF RECORDS
	Wear and tear due to use/tourism	Inspections and photographic documentation	Annual inspection Photographic documentation when necessary, at least every five years	Jelling Parochial Church Council and Vejle Municipality
3. The Trelleborg fortresses				
3.1 Aggersborg	Erosion	Visual inspection of monuments	As required	The Danish Nature Agency
	Mole activity	Visual inspection of monuments	As required	The Danish Nature Agency
	Wear and tear due to use/tourism	Visual inspection of monuments	As required	The Danish Nature Agency
3.2 Fyrkat	Erosion	Visual inspection of monuments	As required	The Danish Nature Agency
	Mole activity	Visual inspection of monuments	As required	Historical Museum of Northern Jutland
	Wear and tear due to use/tourism	Visual inspection of monuments	As required	Historical Museum of Northern Jutland
3.3 Trelleborg	Erosion	Visual inspection of monuments	As required	Trelleborg Museum
	Mole activity	Visual inspection of monuments	As required	Trelleborg Museum
	Wear and tear due to use/tourism	Visual inspection of monuments	As required	Trelleborg Museum
4. Hedeby and Danevirke				
	Size of threatened surface due to land use	Survey of complete monuments	Annual	State Archaeological Department of Schleswig-Holstein
	Plant cover	Survey of complete monuments Photographs from given points	· as required · twice annually	State Archaeological Department of Schleswig-Holstein

COMPONENT PART	INDICATOR	MONITORING METHOD	PERIODICITY	LOCATION OF RECORDS
	Change of conditions for finds/ monuments due to salinity and water	Measurement at Offshore Work	Annual	State Archaeological Department of Schleswig-Holstein
	Teredo navalis (shipworm) attack	Measurement at Offshore Work	Annual	State Archaeological Department of Schleswig-Holstein
	Preservation conditions of ground	Measurement at given points	Continuous	State Archaeological Department of Schleswig-Holstein
	Change of topography in buffer zone	Documentation of spatial planning and measures	Continuous	State Archaeological Department of Schleswig-Holstein
	Change of open spaces, views and perceptibility	Photographs from given points	Annual	State Archaeological Department of Schleswig-Holstein
	Improvement of sustainable use of monuments and setting	Continuous count at museums	Annual	Foundation of Schleswig-Holstein State Museums and Danevirke Museum
5. The Grobiņa burials and settlements				
	Building development	Project evaluation and acceptation, development monitoring and inspection	As required	State Inspection for Heritage Protection and Grobina Municipality
	Land use	Documentation of spatial planning and measures	As required	Grobina Municipality
	Erosion	Visual inspection of monuments	Continuous	Grobina Municipality
	Flooding	Visual inspection of monuments	Continuous	Grobina Municipality

TABLE 6.1

COMPONENT PART	INDICATOR	MONITORING METHOD	PERIODICITY	LOCATION OF RECORDS
	Number of visitors	Visual inspection of monuments and statistics	Annual	Grobina Municipality
	Development of visitor facilities	Documentation of spatial planning and measures	As required	State Inspection for Heritage Protection and Grobina Municipality
6. Vestfold ship burials				
	Changes in the landscape and use of the areas	Inspections and photographic documentation	Annual inspection Photographic documentation when necessary, at least every six years	Vestfold County Authority
	Re-growth of vegetation in the cultural landscape	Inspections and photographic documentation	Annual inspection Photographic documentation when necessary, at least every six years	Vestfold County Authority
	Emergencies caused by natural disasters/ extreme weather conditions	Inspections and photographic documentation	When necessary	Vestfold County Authority
	Wear and tear as a result of increased use	Inspections and photographic documentation	Annual inspection Photographic documentation when necessary, at least every six years	Vestfold County Authority
7. The Hyllestad quernstone quarries				
	Changes in the landscape and use of the areas	Inspections and photographic documentation	Annual inspections Photographic documentation every six year	Sogn og Fjordane County Authority and Norwegian Millstone Centre
	Re-growth of vegetation in the cultural landscape and sea-level rise	Inspections and photographic documentation	Annual inspections Photographic documentation every six year	Sogn og Fjordane County Authority and Norwegian Millstone Centre

COMPO-NENT PART	INDICATOR	MONITORING METHOD	PERIODICITY	LOCATION OF RECORDS
	Emergencies caused by natural disasters/ extreme weather conditions	Inspections and photographic documentation	Annual inspections Photographic documentation every six year	Sogn og Fjordane County Authority and Norwegian Millstone Centre
	Wear and tear as a result of increased use, vandalism and theft of quernstones	Inspections and photographic documentation	Annual inspections Photographic documentation every six year	Sogn og Fjordane County Authority, Norwegian Millstone Centre

ÞINGVELLIR (1)

There are currently two main factors affecting the state of conservation of the assembly site in Þingvellir National Park:

- Flooding of the river Öxará
  - Indicators: State of the river banks and condition of ruins.
- Tourism pressures
  - Indicator: Appearance of walking paths through the assembly site.

One of the tasks in the current management plan accompanying this application is to set up a monitoring programme and revise the key indicators, based among other things on the study and further recording of archaeological remains in the innermost assembly site.

Day-to-day monitoring of the nominated component part is carried out by the staff of Þingvellir National Park.

The Archaeological Heritage Agency monitors the site of the ruins in the innermost assembly, although this is not done regularly, but as the occasion arises.

The park administration contacts the Archaeological Heritage Agency if ruins are disturbed. In addition, the Archaeological Heritage Agency watches over excavation and research at the Þingvellir ruins and a permit is required from the agency.

JELLING (2)

Key indicators regarding measurement of the state of conservation are monitored by professional staff of the Danish Agency for Culture, Vejle Museum, the Danish National Museum / Royal Jelling and staff working for the Jelling Parochial Church Council. Certain levels of monitoring are assured through the daily maintenance of the area and also through regular communication with key actors and stakeholders involved in heritage management in the Nordic Countries. With regard to the rune stones, these have been protected from further degradation by wind, water, fluctuations in temperature and vandalism through the establishment of covers and constant climate control within these. Details of the climate control are described in the management plan.

The most important factors affecting the area were described in Chapter 4, *State of Conservation*, as being:

- Erosion of the surface of the mounds due to a combination of visitors and rain.
- Larval activity potentially damaging the natural grass surface of the mounds.

Various monitoring methods will be employed. One tool will be photographic documentation, combined with regular inspection by conservation officers from the National Museum of Denmark and archaeologists from Vejle Museum, which is the archaeological museum in this region. Also daily monitoring will be carried out by parochial church council personnel as well as staff of Vejle Municipality and Royal Jelling.

Jurisdiction regarding national churches and graveyards, Decree no. 77 of 2nd February 2009, contains certain fixed regulations concerning monitoring. It states that the parochial church council is responsible for the daily supervision of church and graveyard (§ 23). Formal monitoring of the church and graveyard is carried out each year by representatives from the church authority and a buildings specialist, according to a guiding protocol. This protocol will be sent to the Deanery Committee, which then decides which actions to initiate.

It is further stated in the same decree (§ 26) that, at least every four years, an inspection must be carried out by the Dean and a buildings specialist, who will then prepare a report. This report will be sent to the Deanery Committee, who then will investigate which actions it is necessary to initiate.

The Danish Agency for Culture is responsible for Denmark's ancient monuments. The agency has delegated the statutory monitoring of ancient monuments to a number of Danish museums. The Jelling complex is inspected by the Museums of Southwest Jutland, which is the monitoring museum authority in the region.

THE TRELLEBORG FORTRESSES (3)

In practice, the Historical Museum of Northern Jutland is responsible for monitoring Aggersborg and Fyrkat and Roskilde Museum monitors Trelleborg on behalf of the Danish Agency for Culture. In general, the protection order aims to keep the rampart, ditch and fortress intact, with the least possible erosion and wear arising from maintenance and use. Furthermore, there is a wish to conserve and make visible the location of the fortress within the landscape. This secures the testimony of the fortresses as evidence of the monumental and defensive constructions of the Viking Age as well as their strategic positions in the landscape.

AGGERSBORG (3.1)

The main indicator for the state of conservation of the monument is the grass cover on the rampart, ditch and the fortress area. Undesirable species such as stinging nettles (they shade out other species and have a loose root net) are kept down by mowing. Erosion of the rampart off the trail and steps is virtually not a problem since the cessation of sheep grazing. Some mole activity has been observed.

The Danish Nature Agency's weekly monitoring is a fixed routine. Further to this, the forest ranger monitors the area, if this is requested by foresters and others, or by the Nature Agency twice a year.

The Historical Museum of Northern Jutland has overall responsibility for monitoring the scheduled ancient monuments in the region and therefore also Aggersborg.

FYRKAT (3.2)

The main indicator for the state of conservation of the monument is the grass cover on the rampart, ditch and the fortress area. Undesirable species such as stinging nettles (they shade out other species and have a loose root net) are kept down by mowing and grazing. Efforts are made to control mole activity in the area, year by year.

Formulation and execution of the maintenance plan is by Mariagerfjord Municipality, Department of Nature and Environment.

The Historical Museum for Northern Jutland is, via its department Fyrkat Viking Centre, responsible for daily monitoring of the property. In conjunction with Mariagerfjord Municipality and the National Museum of Denmark it formulates a maintenance plan for the scheduled area.

The Historical Museum for Northern Jutland has overall responsibility for monitoring the scheduled ancient monuments in the region and therefore also Fyrkat.

The Danish National Museum monitors scheduled ancient monuments on a regular basis.

TRELLEBORG (3.3)

The ring fortress has a solid grass cover which is grazed by sheep during the summer. In addition, a special machine for cutting the grass on the rampart is used twice during the course of the summer. Grazing by sheep and mowing have not caused any significant erosion of the scheduled area to date. Neither does erosion by the feet of the visitors appear to be a problem. Efforts are made to control the activity of moles year by year.

The Trelleborg Viking Fortress/ the National Museum of Denmark are responsible for daily monitoring of the property. Each year the museum curator formulates a maintenance plan for the scheduled area. Roskilde Museum has the overall responsibility for monitoring the scheduled

ancient monuments in the region and therefore also Trelleborg.

The Danish National Museum monitors the scheduled ancient monuments on a regular basis (about every two years).

HEDEBY AND DANEVIRKE (4)

The main factors affecting the component part were identified in Chapter 4a as plant cover, agriculture and frost damage.

The reference point for monitoring is the state of conservation at the time of their complete recording in the years 2006 to 2010. The data are collected by those institutions that are responsible for the spheres of activity and, consequently, for measures within the framework of the management plan. Gathering and evaluation of the data are carried out by the site management.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

There are currently three main factors affecting the state of conservation of the Grobina burials and settlements:

– Development pressures (building and agriculture)
  · Indicator: Status quo regarding building development. Construction of new buildings not connected with the World Heritage Site is not permitted on the settlement next to Skabārža kalns; the building status quo must be maintained.
  · Indicator: Status quo regarding lands not used for agriculture: agriculture must not be developed in Atkalni and Smukumi; permanent forest in Porāni should be gradually turned into a park. The status quo of the area used for agriculture must be maintained.

– Environmental pressures (erosion and floods):
  · Indicator: Erosion. The Priediens burial site was created on sandy ground. Therefore, if the turf layer is lost, as seen in previous years, the site can be eroded by wind and rain.
  · Indicator: Floods. The status quo of sites outside the urban area and in the Ālande river basin must be maintained.

– Tourism pressures
  · Indicator: Number of visitors within the sites of the Grobiņa burials and settlements.
  · Indicator: Demand for visitor facilities.

OTHER CHALLENGES

· Initiatives implemented for involving local community within the heritage preservation and heritage education activities.

All development projects in the territory or its protection zone are coordinated with the State Inspection for Heritage Protection according to the laws and regulations of the Republic of Latvia.

The regional office of the State Inspection for Heritage Protection monitors the site regularly and in particular cases. The municipality contacts the State Inspection for Heritage Protection if sites are disturbed. In addition, the inspection supervises excavation and research at the sites, and a permit for these is required from the inspection. Day-to-day monitoring is carried out by the staff of Grobiņa Municipality Council. The involvement of private owners is also attendant and their responsibility is regulated according to the laws and regulations of the Republic of Latvia.

Overall monitoring of the property and the results of its preservation and development initiatives will be implemented by the Cooperation Council created for the protection and development of the Grobiņa archaeological heritage, with representatives from Grobiņa Municipality Council, the State Inspection for Heritage Protection, Liepāja City Council, the Latvian National Commission for UNESCO, the Latvian Association of Local and Regional Governments and the National History Museum of Latvia.

The Management and Development Plan will study and analyse these potential threats identifying them and finding solutions for reducing them.

THE VESTFOLD SHIP BURIALS (6)

The most important factors affecting the nominated area were described in Chapter 4, *State of Conservation.*

The key areas for systematic and regular monitoring and follow-up of the management plan are:

- Changes in the landscape and in the use of the areas as a result of development pressures
- Re-growth of vegetation in the cultural landscape
- Wear and tear as a result of increased use
- Emergencies caused by natural disasters/extreme weather conditions

Different methods of monitoring will be employed. One tool will be photographic documentation combined with physical inspection. Moreover, emphasis will be put on using non-invasive techniques such as Lidar scanning to detect changes in the landscape over a period of time. A key objective is to construct a systematic database that can be used in management and measures that will preserve and safeguard World Heritage values at the Vestfold ship burials.

The most important tool for the preservation of World Heritage values is accordance with the legal instruments stipulated by the Cultural Heritage Act and the Planning and Building Act, and their accompanying regulations. The values of the component part are legally protected through the national regulatory framework which has been in place for a long period of time.

Annual reporting to the Directorate for Cultural Heritage.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

The key areas for systematic and regular monitoring and accordance with the management plan for the Hyllestad quernstone quarries are:

- Changes in the landscape and in the use of the areas as a result of development pressures
- Re-growth of vegetation in the cultural landscape
- Wear and tear as a result of increased use
- Emergencies caused by natural disasters/extreme weather conditions

To safeguard the universal values in the nominated property, the condition of the production landscape will be monitored. Photographic documentation of the quarries, mounds and loose quernstones has been carried out in connection with the UNESCO nomination, and constitutes important documentation with regard to the present condition of the landscape. Inspections and future photographic documentation will be key instruments in monitoring the condition of the cultural heritage.

6.B
ADMINISTRATIVE ARRANGEMENTS FOR MONITORING THE PROPERTY

Each component part of the nominated transnational serial property *Viking Age Sites in Northern Europe* will deliver a report on the state of conservation of each site in time for the annual meeting of the Steering Group. It will report any change to the property and its surroundings based on the key indicators for each site.

Each component part will also report on the state of implementation of the principals of the management system.

The Steering Group will evaluate the reports at its annual meeting and will ask the States Parties for further information or actions if necessary.

The names of and contact information for the agencies responsible for the monitoring of each component part are detailed below.

ÞINGVELLIR (1)

Þingvellir National park
Austurstræti 12
150 Reykjavik
Iceland
Tel: (+354) 552 1730
E-mail: thingvellir@thingvellir.is
www.thingvellir.is

JELLING (2)

Jelling Parochial Church Council
Thyrasvej 2a DK-7300 Vejle
Denmark
Tel: (+45) 7587 1117
E-mail: 7905@SOGN.DK
www.jellingkirke.dk

Vejle Municipality
Skolegade 1
DK-7100 Vejle
Denmark
Tel: (+45) 7681 0000
E-mail: post@vejle.dk
www.vejle.dk

THE TRELLEBORG FORTRESSES (3)

AGGERSBORG (3.1)

Danish Nature Agency, Thy
SøholtSøholtvej 6, Vester Vandet
DK-7700 Thisted
Denmark
Tel: (+45) 7254 3000
E-mail: THY@nst.dk
www.naturstyrelsen.dk/Lokalt/Thy

FYRKAT (3.2)

Historical Museum of Northern Jutland
Algade 48
DK-9000 Aalborg
Denmark
Tel: (+45) 9931 7400
E-mail: historiskmuseum@aalborg.dk
www.nordmus.dk

TRELLEBORG (3.3)

Trelleborg Viking Fortress
Trelleborg Allé 4
DK-4200 Slagelse
Denmark
Tel: (+45) 5854 9506
trelleborg@slagelse.dk
www.vikingeborgen-trelleborg.dk

HEDEBY AND DANEVIRKE (4)

State Archaeological Department of Schleswig-Holstein (ALSH)
Schloss Annettenhöh
Brockdorff-Rantzau-Str. 70
D-24837 Schleswig
Germany
Tel: (+49) 4621 3870
E-mail: info@alsh.landsh.de

Foundation of Schleswig-Holstein State Museums
Schloß Gottorf
D-24837 Schleswig
Germany

Danevirke Museum
Ochsenweg 5
D-24867 Dannewerk
Germany

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

State Inspection for Heritage Protection
M. Pils Street 17/19
Riga
LV-1050 Latvia
Tel: (+371) 6722 9272
Fax: (+ 371) 6722 8808
E-mail: vkpai@mantojums.lv
www.mantojums.lv

Grobina Municipality
Lielā Street 76
Grobiņa
Grobiņa novads
LV-3430 Latvia
Tel: (+371) 6349 0458
Fax: (+371) 6349 0171
E-mail: dome@grobinasnovads.lv
www.grobinasnovads.lv

THE VESTFOLD SHIP BURIALS (6)

Vestfold County Authority
Svend Foyns gate 9
NO-3126 Tønsberg
Norway
Tel: (+47) 3334 4000
Fax: (+47) 3331 5905
E-mail: firmapost@vfk.no
www.vfk.no

THE HYLLESTAD QUERNSTONE QUARRIES (7)

Sogn og Fjordane County Authority
Department of Culture
PO Box 173
NO-6801 Førde
Norway
Tel: (+47) 5765 6100,
Fax: (+47) 5765 6101
E-mail: postmottak.kultur@sfj.no
www.sfj.no

Norwegian Millstone Centre
NO-6957 Hyllestad
Norway
Tel: +47 4587 1940
E-mail: post@kvernstein.no
www.kvernstein.no

6.C
RESULTS OF PREVIOUS REPORTING EXERCISES

No reports have yet been compiled for the serial nomination *Viking Age Sites in Northern Europe*. Listed below are reports on the individual component parts.

ÞINGVELLIR (1)

Two main reporting exercises have been carried out involving various partners in two periods. The first reporting exercise took place in the 1990s, when work was done on the first management plan for the park.

The paths and bridges currently in the innermost assembly site were constructed in connection with recording of remains in the area from 1986 to 1992, and with a report on the status of the ruins.

Recording of remains demonstrated that considerably more extensive objects of interest were present than had been expected. Moreover, the poor condition of booth ruins was very clearly illustrated. Where trails had been trodden over the booths, these were actually flattening out into shapeless hummocks and piles of soil. Some of the ruins had deteriorated a great deal through heavy pressure from large numbers of tourists, so that they were under serious threat. It had become imperative to improve the pathways through the assembly site.

It was also suggested in these reports that one or more sites with ruins be specifically investigated through archaeological excavation in order to obtain more information on the assembly site. Subsequent to the recording of remains, measures were taken to protect features of interest. A footbridge was constructed skirting the Snorrabúð ruins as well as other sensitive places, such as Lögberg between Hamraskarð and Krossskarð, and paths were repaired and improved. An archaeologist supervised the installation of the footbridge, which was formally opened on 24th June 1990 and rests on narrow iron rods drilled into the rock, but is removable, if desired, without leaving visible traces.

The experience resulting from constructing this bridge is excellent, since it provides substantially better access to the features of interest. In addition, it is apparent that the bridge is used by over 90% of tourists, besides protecting features of interest from being trodden down, and it creates easier access for the disabled to the Icelandic nation's most sacred site.

The ICOMOS advisory body evaluation of 2004 made six recommendations with respect for Þingvellir´s inscription on the World Heritage List.

- A comprehensive programme of archaeological research, with emphasis on non-destructive recording, to be included in the management plan.
- Plans should be developed for the progressive acquisition of holiday houses within the park as and when their leases come to an end. Stricter controls should be put in place with respect to effluent from holiday houses bordering lake Þingvallavatn.
- A programme to remove non-indigenous conifers from the entire park and replace them, where appropriate, by native species should be part of the management plan.
- The revised road scheme should be accepted subject to the conditions outlined above.
- It is recommended that the central car park at Flosagjá, on the eastern side of the Öxará, be closed.
- The steel and concrete bridge over the Öxará river should be replaced by a lighter construction more in harmony with the landscape.

These recommendations have been met with ad hoc projects, and have also been addressed in the Management Plan 2004-2024, see Annex.

Þingvellir National Park submitted a new periodic report in July 2013.

JELLING (2)

Previous reporting exercises have been carried out involving different partners. Reports were mainly produced in order to describe different ad hoc projects. ICOMOS produced an overall and complete monitoring report on the present state of conservation in 2004; this is appended to this nomination. A state of conservation report was produced in 2006, which necessitated a further investigation of the conservation of the rune stones. In 2008, a complete report on the state of the rune stones was produced and this report recommended that action be taken regarding their conservation. This is currently being addressed. A new management plan was produced in 2010. These plans, documents, and reports are appended in the annex to this nomination.

The report from the monitoring museum in 2008 had no comments on the state of conservation.

Periodic Report 2006 for Jelling mounds, rune stones and church mentions the risk of deep ploughing and notes weakness in the presentation to the ordinary visitors. Actions have been taken and now the monument area in open land is protected against ploughing and cultivation. The historic importance is now explained and communicated to ordinary visitors by the marking of the monument area as described in Chapter 5d (2). Furthermore, the visitor centre, Royal Jelling as a part of the Danish National Museum, will be improved as described in Chapter 5h (2).

Jelling mounds, runic stones and church submitted a new periodic report at the end of July 2013.

THE TRELLEBORG FORTRESSES (3)

Reports from the monitoring museums in 2009 (Aggersborg), 2011 (Trelleborg) and 2012 (Fyrkat) had no comments on the state of conservation.

HEDEBY AND DANEVIRKE (4)

A register of damage to the monuments was compiled within the framework of the GIS-Danevirke and is available in electronic form. The analysis of the data constitutes the foundations for the current management plan for Danevirke and Hedeby.

THE GROBIŅA BURIALS AND SETTLEMENTS (5)

No previous reporting exercises implemented.

THE VESTFOLD SHIP BURIALS (6)

No systematic monitoring and reporting on the state of the property has been carried out based on the indicators set out in section 6.a above. The Overall Plan for Borre Park 2007-2015 contains a systematic review of the state of conservation in 2005 that particularly stresses the need to open up the landscape and to cut back the vegetation.

There are no general reviews of the Oseberg and Gokstad areas.

THE HYLLESTAD QUERNSTONE QUARRIES (7)

No reports have yet been compiled for the Hyllestad quernstone quarries.

DOCUMENTATION

7

7

7.A
PHOTOGRAPHS, SLIDES, IMAGE INVENTORY AND AUTHORISATION TABLE AND OTHER AUDIOVISUAL MATERIALS

ÞINGVELLIR (1)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Thing1	Digital photo	Aerial view from across assembly site	2011	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing2	Digital photo	In the Almannagja fissure	2010	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing3	Digital photo	View across the river Öxará towards Lög-berg	2010	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing4 (Figure 4.1 in the dos-sier)	Digital photo	Overview of the Þingvellir assembly site	2011	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing5	Digital photo	View along the Al-mannagjá fissure	2009	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing6	Digital photo	View towards Lögberg	2011	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing7 (Figure 2.6 in the dossier)	Digital photo	Ruins of Snorrabúð next to Lögberg; the Þingvellir farm and church in the back-ground	2011	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes
Thing8	Digital photo	Þingvellir	2012	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes

ÞINGVELLIR (1)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Thing9	Digital photo	The Öxarárfoss waterfall	2012	Einar Á.E. Sæmundsen	Einar Á.E. Sæmundsen	einar@thingvellir.is Þingvellir National Park, Austurstraeti 12, 101 RVK, Iceland	Yes

BOOKS AND/OR OTHER AUDIOVISUAL MATERIAL:

Björn Þorsteinsson. 1987. *Thingvellir. Iceland's National Shrine. A visitor's Companion*. Örn og Örlygur, Reykjavík.

Owen, Olwyn (ed). 2012. *Things in the Viking world*. Shetland Amenity Trust.

Pétur M. Jónasson and Páll Hersteinsson. 2011. *A unique world evolving – Thingvallavatn. A World Heritage Site*. Forlagið, Reykjavík.

Thing Sites. Discover the Viking Cradle of Democracy. (Pamphlet)

JELLING (2)

ID No	Format	Caption	Date of photo-graph	Photogra-pher	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Jelling 1 (Figure 2.10 in the dossier)	Digital photo	Mounds and Church	2011	M. Dengsø Jessen	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes
Jelling 2 (Figure 2.11 in the dossier)	Digital photo	Remains of palisade	2010	M. Dengsø Jessen	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes
Jelling 3 (Figure 2.12 in the dossier)	Digital photo	Depiction of Christ on the larga rune stone	2010	P. Weissel	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes
Jelling 4	Digital photo	Close up of the depiction of Christ on the large rune stone	2011	T.Dehn	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes
Jelling 5	Digital photo	The rune stones in the coverings	2011	J. Lindhe	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes
Jelling 6	Digital photo	The Southern Mound and the marking of the palisade	2011	T.Dehn	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Andersens Boulevard 2, DK-1553 København V	Yes

ID No	Format	Caption	Date of photo-graph	Photogra-pher	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Jelling 7	Digital photo	The marking of the palisade at the pond where timber is pre-served	2012	T.Dehn	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Yes
Jelling 8	Digital photo	The marking of the palisade, a house and the stone setting seen from the Southern Mound		T.Dehn	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Yes
Jelling 9	Digital photo	Aerial photograph of the mounds, the church, the rune stones and Royal Jelling	2011	J.N. Sørensen	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Heritage Agency of Denmark, H.C. Ander-sens Boulevard 2, DK-1553 København V	Yes

THE TRELLEBORG FORTRESSES (3)

ID No	Format	Caption	Date of photo-graph	Photogra-pher	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Ringfor-tress1 (Fig-ure 2.17 in the dossier)	Digital photo	Aerial photograph of Aggersborg	2011	Torben Dehn	Heritage Agency of Denmark, H.C. Andersens Boule-vard 2, DK-1553 København V	Heritage Agency of Den-mark, H.C. Andersens Boulevard 2, DK-1553 København V	yes
Ringfor-tress2	Digital photo	Aerial photograph of Aggersborg	2011	Torben Dehn	Heritage Agency of Denmark, H.C. Andersens Boule-vard 2, DK-1553 København V	Heritage Agency of Den-mark, H.C. Andersens Boulevard 2, DK-1553 København V	yes
Ringfor-tress3	Digital photo	Aerial photograph of Aggersborg	2011	Torben Dehn	Heritage Agency of Denmark, H.C. Andersens Boule-vard 2, DK-1553 København V	Heritage Agency of Den-mark, H.C. Andersens Boulevard 2, DK-1553 København V	yes
Ringfor-tress4 (Fig-ure 4.3 in the dossier)	Digital photo	The circular rampart at Trelleborg	2011	Anne-Christine Larsen	Anne-Christine Larsen	Trelleborg Viking For-tress, Museum of South-west Zealand, Trelleborg Allé 4, DK-4200 Slagelse	Yes
Ringfor-tress5	Digital photo	The circular rampart at Fyrkat	2011	Jan Slot-Carlsen	Jan Slot-Carlsen	Nordjyllands Historiske Museum, Algade 48, DK-9000 Aalborg	Yes

THE TRELLEBORGE FORTRESSES (3)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Ringfor-tress6	pdf	One of the marked Trelleborg-type long-houses at Trelleborg	2011	Anne-Christine Larsen	Anne-Christine Larsen	Trelleborg Viking For-tress, Museum of South-west Zealand, Trelleborg Allé 4, DK-4200 Slagelse	Yes
Ringfor-tress7	Digital photo	One of the marked Trelleborg-type long-houses at Fyrkat	2011	Jan Slot-Carlsen	Jan Slot-Carlsen	Nordjyllands Historiske Museum, Algade 48, DK-9000 Aalborg	Yes
Ringfor-tress8	Digital photo	The circular rampart at Aggerborg	2011	Jan Slot-Carlsen	Jan Slot-Carlsen	Nordjyllands Historiske Museum, Algade 48, DK-9000 Aalborg	Yes
Ringfor-tress9	Digital photo	The enclosure at Trel-leborg, with the cem-etery and the eastern gate of the ring fortress in the background	2011	Anne-Christine Larsen	Anne-Christine Larsen	Trelleborg Viking For-tress, Museum of South-west Zealand, Trelleborg Allé 4, DK-4200 Slagelse	Yes

HEDEBY AND DANEVIRKE (4)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
D_HD_1 (Figure 2.22 in the dos-sier)	digital photo	Hedeby	2010	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesa-mt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_2 (Figure 2.24 in the dos-sier)	digital photo	Crooked Wall of the Danevirke	2010	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesa-mt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_3	digital photo	Brick front of the Main Wall of the Danevirke (Walde-mar's Wall)	2010	Michael Lang	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesa-mt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_4 (Figure 2.23 in the dos-sier)	digital photo	The Crooked Wall of the Danevirke	2010	Rainer Heiden-reich	Archäologisches Landesamt Schleswig-Hol-stein	Archäologisches Landesa-mt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
D_HD_5	digital photo	Copy of rune stone for Skarthi near Hedeby	2010	Hans Haebler	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_6	digital photo	Main Wall near Danevirke Museum	2010	Ingo Lau	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_7	digital photo	Semi-circular Wall at Hedeby	2010	Mathias Bannick	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_8	Digital photo	Main Wall of the Danevirke	2010	Wolfgang Hartmann	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_9	Digital photo	Excavation near Thyraburg 1972	1972	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_10	digital photo	East Wall	2008	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_11	digital photo	North Wall	2008	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_12	digital photo	Kovirke	2008	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes
D_HD_13 (Figure 4.8 in the dossier)	digital photo	Connection Wall	2010	Evi Krebs-Hoffmann	Archäologisches Landesamt Schleswig-Holstein	Archäologisches Landesamt Schleswig-Holstein Schloss Annettenhöh Brockdorff-Rantzau-Str. 70 D-24837 Schleswig	Yes

DANEVIRKE AND HEDEBY (4)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
D_HD_14 (Figure 2.26 in the dos-sier)	digital photo	Dies found in the harbour at Hedeby, 10th century AD	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_15	digital photo	Female ornaments of precious metal from chamber grave 5, c. AD 900	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_16	digital photo	Hoard of brass bars from the harbour at Hedeby, originally from the Rhineland, late 8th/early 9th century AD	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_17	digital photo	Glass tesserae from Hedeby, used in glass production, Viking Age	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_18	digital photo	Coin hoard from Steinfeld near Hedeby, Dorestad imitations, probably minted in Hedeby, early 10th century AD	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_19	digital photo	From a smithy: casting mould of soapstone, iron pan, melting pot, iron pliers, Viking Age	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_20	digital photo	Rune stone for Skarthi, Busdorf, second half of 10th/first half of 11th century AD; runes highlighted in recent years	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_21	digital photo	Quernstone, probably from Hyllestad, first half of 11th century AD	2009	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Hol-steinische Landesmu-seen, Schloss Gottorf 1, D-24837 Schleswig	Yes

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
D_HD_22	digital photo	Reconstruction of wreck 1 from Hedeby, the "royal" longship	2009	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_23	digital photo	Ware cube in the current exhibition at the Viking Museum Hedeby	2010	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_24	Print	Excavation at the Semi-circular Wall, Hedeby	1934	Herbert Jankuhn	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_25	digital photo	Excavation in the central settlement area of Hedeby	1969	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_26	digital photo	Excavation in the central settlement area of Hedeby	1969	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_27	digital photo	Excavation in the harbour area of Hedeby: Post rows belonging to harbour facilities	1980	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes
D_HD_28	digital map	State of research: excavations and wrecks in Hedeby	2010	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf	Stiftung Schleswig-Holsteinische Landesmuseen, Schloss Gottorf 1, D-24837 Schleswig	Yes

BOOKS AND/OR OTHER AUDIOVISUAL MATERIAL:

Die welt der wikinger / Vikingarnes verden / The World of the Vikings / Le Monde des Vikings. DVD. Kiel 1986.

GROBIŅA BURIALS AND SETTLEMENTS (5)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Grobina 1	digital photo	Atkalni flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 2	digital photo	Grobiņa hillfort	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 3	digital photo	Grobina medivial castle	2010	Dāvis Gertners	State Inspection for Heritage Protection; Grobiņa municipality	M. Pils Street 17/19, Riga LV-1050; Lielā iela 76, Grobiņa, Grobiņas novads, LV-3430	Yes
Grobina 4	digital photo	Porāni burial mound site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 5 (Figure 2.29 in the dossier)	digital photo	Priediens burial mounds	2005	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 6	digital photo	Smukumi flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 7	digital photo	Atkalni flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 8 (Figure 2.30 in the dossier)	digital photo	Grobiņa hillfort by the Ālande river	2010	Dāvis Gertners	State Inspection for Heritage Protection; Grobiņa municipality	M. Pils Street 17/19, Riga LV-1050; Lielā iela 76, Grobiņa, Grobiņas novads, LV-3430	Yes
Grobina 9 (Figure 2.31 in the dossier)	digital photo	Grobiņa hillfort with the settlement and ruins of Grobiņa medieval castle	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 10 (Figure 2.28 in the dossier)	digital photo	Porāni burial mound site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 11	digital photo	Priediens burial mounds site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Grobina 12	digital photo	Smukumi flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 13	digital photo	Atkalni flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 14	digital photo	Grobiņa hillfort	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 15	digital photo	Grobina medieval castle	2010	Dāvis Gertners	State Inspection for Heritage Protection; Grobiņa municipality	M. Pils Street 17/19, Riga LV-1050; Lielā iela 76, Grobiņa, Grobiņas novads, LV-3430	Yes
Grobina 16	digital photo	Porāni burial mound site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 17	digital photo	Priediens burial mounds site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 18	digital photo	Smukumi flat burial site	2011	Juris Urtāns	State Inspection for Heritage Protection	M. Pils Street 17/19, Riga LV-1050	Yes
Grobina 19	digital photo	Priediens burial mounds	2010	Dāvis Gertners	State Inspection for Heritage Protection; Grobiņa municipality	M. Pils Street 17/19, Riga LV-1050 Lielā iela 76, Grobiņa, Grobiņas novads, LV-3430	Yes

BOOKS AND/OR OTHER AUDIOVISUAL MATERIAL:

V. Petrenko, J. Urtāns. *The Archaeological Monuments of Grobiņa*. Stockholm – Riga: Museum of National Antiquities & Latvian Cultural Foundation, 1995.

V. Petrenko, J. Urtāns. Grobiņas arheoloģijas pieminekļi. Riga, 2012.

VESTFOLD SHIP BURIALS (6)

More photos and maps can be found in the Management plan for the Vestfold ship burials.

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Vestfold 1 (Figure 2.34 in dossier)	digital photo	Gokstad, nominated area and buffer zone	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 2 (Figure 2.35 in the dossier)	digital photo	Oseberg, nominated area and buffer zone	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 3 (Figure 2.36 in the dossier)	digital photo	Borre, nominated area and buffer zone	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 4 (Figure 2.37 in the dossier)	digital photo	The Oseberg mound.	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 5 (Figure 2.38 in the dossier)	digital photo	The Gokstad mound.	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 6 (Figure 2.40 in the dossier)	digital photo	Borre.	2011	Arve Kjersheim	Directorate for Cultural Heritage	PO Box 8196 Dep. NO-0034 Oslo Norway	Yes
Vestfold 7 (Figure 2.65 in the dossier)	digital photo	Johannes Flintoe's Borre.	1832	Johannes Flintoe.	-	-	Yes
Vestfold 8 (Figure 2.66 in the dossier)	digital photo	Gokstad, excavation	1880	Unknown	-	-	Yes
Vestfold 9 (Figure 2.66 in the dossier)	digital photo	Oseberg excavation	1904	Olaf Væring	-	-	Yes

HYLLESTAD QUERNSTONE QUARRIES (7)

More photos and maps can be found in the Management plan for the Hyllestad quernstone quarries.

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Hyllest1 (Figure 2.51 in the dossier)	digital photo	Shallow quarry by the sea at Rønset	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest2 (Figure 2.52 in the dossier)	digital photo	Deep quarry in Mill-stone Park	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest3 (Figure 2.53 in the dossier)	digital photo	Quernstones on the seabed in the harbour at Aurgota	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest4 (Figure 2.54 in the dossier)	digital photo	Unfinished millstone still attached to the rock	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400 Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest5 (Figure 2.68 in the dossier)	digital photo	Extraction of quernstones	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest6 (Figure 2.69 in the dossier)	digital photo	Millstone Park	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest7 (Figure 4.6 in the dossier)	digital photo	The nominated property at Rønset seen from the air	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes

HYLLESTAD QUERNSTONE QUARRIES (7)

ID No	Format	Caption	Date of photo-graph	Photographer	Copyright owner	Contact details of copyright owner	Non-exclusive cession of rights
Hyllest8 (Figure 4.9 in the dossier)	digital photo	Quarry with loose quernstones at Rønset	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest9 (Figure 5.10 in the dossier)	digital photo	Knowledge through action for pupils at Hyllestad school	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes
Hyllest10 (Figure 5.11 in the dossier)	digital photo	Knowledge through action for pupils at Hyllestad school	2011	Kim Søderstrøm and Jørgen Magnus	Directorate for Cultural Heritage	Directorate for Cultural Heritage, PO Box 8196 Dep. NO-0034 Oslo. Tel: (+47) 2294 0400; Fax: (+47) 2294 0404; E-mail: postmottak@ra.no	yes

7.B
TEXTS RELATING TO PROTECTIVE DESIGNATION, COPIES OF PROPERTY MANAGEMENT PLANS OR DOCUMENTED MANAGEMENT SYSTEMS AND EXTRACTS OF OTHER PLANS RELEVANT TO THE PROPERTY

Texts provided on DVD annexed to the dossier.

ÞINGVELLIR (1)

- Þingvellir National Park. Management Plan 2004-2024
- Act on the Thingvellir National Park no. 47/2004
- Regulation on Thingvellir National Park Nr. 848/2005
- Heritage Act no. 80/2012 (summary)
- Act on the Conservation of Lake Thingvallavatn and its Catchment Area no. 85/2005

JELLING (2)

- Management plan for Jelling
- The Museum Act
- Planning Act
- The Churches and Churchyards Consolidated Act
- Act on Nature Conservation
- Protection order of 13th October 1941
- Municipal plan addendum no. 41 to Municipal Plan 2009-2021
- Local plans 102, 135, 153, 1077, 1100 and 1150

THE TRELLEBORG FORTRESSES (3)

- Management plan for the Trelleborg fortresses
- The Museum Act § 29e
- Planning Act
- Protection of Nature Act and the Environmental Objectives Act
- Summary of documents of protective designation.

HEDEBY AND DANEVIRKE (4)

Summary of documents of protective designation:

- Executive summary, Management Plan Hedeby and Danevirke (2011)
- Executive summary, Maintenance Plan (2010)
- Executive summary, The Monument Preservation Act of Schleswig-Holstein (2012)
- Executive summary, The Nature Conservation Act of the Federal Republic of Germany (2010) and The Nature Conservation Act of the State of Schleswig-Holstein (2011)
- Executive summary, Regional Development Plan
- Executive summary, Regional Plans Area III and V
- Executive summary, Regulation concerning the Nature Protection Area “Hedeby-Danevirke”
- Executive summary, Regulation concerning the Nature Protection Area “Reesholm/Schlei”

- Executive summary, District Regulation concerning the Landscape Protection Area "Hedeby-Danevirke"
- Executive summary, District Regulations concerning further Landscape Protection Areas
- Examples of the Detailed Description of Hedeby and Danevirke

Summary_Mainwall

Form_Mainwall

GROBIŅA BURIALS AND SETTLEMENTS (5)

- Law on Protection of Cultural Monuments, in English
- Grobiņa Municipality Development Plan 2005-2017 and Grobiņa District Development Plan 2004-2016 (extracts in Latvian), 1 CD
- Cabinet Regulation no. 474 of 26 August 2003, Regulations regarding the Registration, Protection, Utilisation and Restoration of Cultural Monuments and the Granting of the Status of an Environment-Degrading Object, in English
- Grobiņa Archaeological Ensemble Development and Management Plan, Draft 2013

VESTFOLD SHIP BURIALS (6)

- Property Management Plan – Vestfold ship burials (see enclosed Management Plan for Vestfold Ship Burials)
- Cultural Heritage Act: http://www.regjeringen.no/en/doc/Laws/Acts/Cultural-Heritage-Act.html?id=173106
- Planning and Building Act: http://www.regjeringen.no/en/doc/laws/Acts/planning-building-act.html?id=570450

HYLLESTAD QUERNSTONE QUARRIES (7)

- Property Management Plan – Hyllestad quernstone quarries (see enclosed Management plan for Hyllestad quernstone quarries)
- Cultural Heritage Act: http://www.regjeringen.no/en/doc/Laws/Acts/Cultural-Heritage-Act.html?id=173106
- Planning and Building Act: http://www.regjeringen.no/en/doc/laws/Acts/planning-building-act.html?id=570450

7.C
FORM AND DATE OF MOST RECENT RECORDS OR INVENTORY OF PROPERTY

No records or inventory for the nominated property *Viking Age Sites in Northern Europe* exist as yet. However, the most recent records and inventories for the component parts of the serial nomination are listed below.

ÞINGVELLIR (1)

There are numerous records of the archaeological content of Þingvellir, extending from early times until today.

Þingvellir National park has been working on a full archaeological survey of the assembly site and adjacent areas since 2010 and this work is ongoing. The survey work and the findings are stored in the GIS system of Þingvellir National Park and shared with the Cultural Heritage Agency of Iceland. Photos and maps of the archaeological site are also available.

Þingvellir National Park has the digitised inventory of the 1986-88 survey work conducted by Guðmundur Olafsson, archaeologist at the National Museum. The complete survey archive is held at the Icelandic National Museum.

Þingvellir National Park has aerial photographs of the assembly site taken at about ten year intervals from 1937 until 2011. The most recent low-level aerial photographs, from 2006 and 2011, also have infrared imagery.

All previous survey and excavation reports from the earliest work at Þingvellir are available at Þingvellir National Park and the Cultural Heritage Agency of Iceland and many are also available online.

JELLING (2)

Records of the investigations in *The Jelling Project – a royal monument in a Danish and European perspective* are in digital form and are coordinated by Moesgård Museum, in collaboration with the University of Aarhus. All older records from Vejle Museum and the National Museum of Denmark were digitised under the project. Therefore, all records from Jelling are now organised in one digital system. The project is still in progress and a decision about the final storage of records will be taken at the end of the project period. Storage is presently at Moesgård Museum. The artefact material from Jelling is limited and is mainly stored and exhibited at the National Museum of Denmark in Copenhagen, but some objects are exhibited at Royal Jelling in Jelling.

THE TRELLEBORG FORTRESSES (3)

Both records and objects from Fyrkat and Trelleborg are mainly stored at the National Museum of Denmark, but half of the objects from Trelleborg are exhibited at the museum Trelleborg Viking Fortress. The records and objects from Aggersborg belong to the National Museum of Denmark, but until publication of the site is completed, the material is stored at Moesgård Museum. The publication is presently in press. The oldest finds from Fyrkat, excavated in 1943, are stored at Hobro Museum, part of the Museum of Northern Jutland.

The records from the excavations of the three fortresses in 1934-1990 are not digitised.

The records and objects from the project *The King's Fortresses* 2007-09 are stored at the local museums: Aggersborg: Vesthimmerland Museum; Fyrkat: Museum of Northern Jutland; Trelleborg: the final storage of the objects has not yet been decided upon due to organisational changes.

DANEVIRKE AND HEDEBY (4)

DATA BANKS AND INVENTORIES

Structural elements

All structural elements and known archaeological sites that can be counted as part of the Danevirke and Hedeby monuments are completely recorded in a formalised description, giving their location, visibility, state of preservation and use, together with the research history of the respective elements. The description is augmented by sketch maps, topographical maps and airborne LiDAR imagery of the constituent parts, as well as by cross-sections and profiles of the wall and the terrain compiled on the basis of these. There is also the Danevirke Atlas from 2001, a cartographic record of the surface of the monument at a scale of 1:2000. Airborne LiDAR imagery enables recording of the surface relief to the nearest decimetre and in this way the surface of the monuments can be recorded. Together with cross-references to archaeological investigations, statements regarding the ascertained state of conservation also form part of the description. The monuments within the nominated area have been described. These descriptions were conducted by the State Archaeological Department of Schleswig-Holstein and are housed there. They are also to be found in the management plan and in the extracts included in the appendix of this application.

DATA BANKS / MOVABLE INVENTORY / FINDS

All the fundamental cartographic material and information on the inventory, protection, maintenance, use and research that is available is held in a geographical information system (GIS) at the State Archaeological Department of Schleswig-Holstein (ALSH). This serves as the central data pool for the Danevirke and Hedeby and from this maps interlinked with various types of information can be generated at all times – or sorted dynamically.

Reports dealing with archaeological enquiries are archived at the State Archaeological Department (ALSH). Part of the documentation on the Hedeby investigations is housed at the Archaeological State Museum Schloss Gottorf (ALM). The comprehensive documentation includes photographs, a digital model of the terrain based on LiDAR imagery, orthogonal aerial photographs of the entire Danevirke and of Hedeby, as well as geomagnetic surveys and sidescan-sonar images of underwater segments of the Danevirke. The results of the georadar surveys within the Semi-circular Wall are kept at the State Museum (ALM). The finds from all the excavations are also kept at the ALM and are fully archived. At present, work is progressing on setting up a common data bank which will allow the recording of find spots/archaeological sites in the ALSH to be synchronised with the recording of finds/artefacts at the ALM.

GROBIŅA BURIALS AND SETTLEMENTS (5)

All the fundamental records, material and information on the inventory, protection, maintenance, use and research that are available on the Grobiņa burials and settlements are kept at several institutions in Latvia.

All the Grobiņa sites have been recorded and inventoried since 1920 and this material is stored in the archives of the National Museum of History (reports, photographs, measurements) – they are mainly the records and inventories from the Board of Antiquities of Latvia in 1920-30. The National Museum of History also collected results of geomagnetic surveys. Some records are kept at the Institute of Latvian History, under the University of Latvia (mainly the material from 1950).

The records and inventories describing the actual state of conservation are kept at the State Inspection for Heritage Protection, Monument Documentation Centre. In addition, there is a comprehensive range of archives related to the records of local amateur historians, scientific publications, newspaper articles, statements on finds and photos, including aerial photos. Maps of Grobiņa from different periods, geodetic measurements and territorial planning documents, together with the respective correspondence, are also archived.

Various records are also kept at Liepaja Museum, including finds from excavations (for example the Grobiņa picture stone from Priediens burial field).

VESTFOLD SHIP BURIALS (6)

All the fundamental records, extending from the first excavations in the 19th century to ongoing research relating to the three sites, are kept at the Museum of Cultural Heritage at the University of Oslo. The finds from the excavations are also kept at the museum and the most important objects are displayed at the Viking Ship Museum, a separate department of the Cultural Heritage Museum. The *Gokstad revitalised* project began in 2009 and several publications of the results are planned by the museum.

The Directorate for Cultural Heritage keeps a digital register of protected cultural heritage in Norway, *Askeladden*. This register is still being developed and it will ultimately also include all recent decisions according to the Cultural Heritage Act in relation to the sites. Older photographs and aerial photographs of the sites (2011) have been digitised and are kept in the photo database of the directorate.

Vestfold County Authority holds reports on the archaeological research at Borre carried out in connection with the extension of the churchyard in 1999, and with the building of Midgard Historic Centre. The county also holds map data from LiDAR scanning and geophysical survey of the area around the Borre mounds (2004-13).

HYLLESTAD QUERNSTONE QUARRIES (7)

All the records of scientific archaeological research are kept at the Topographical Archive, Cultural History Collection, at the University of Bergen. The quernstone quarries have a very short history as Viking Age cultural heritage. Archaeological investigations were undertaken between 2001 and 2008. Bergen Maritime Museum holds records of underwater investigations and finds. The Geological Survey of Norway has made a complete survey of the entire quarry landscape at Hyllestad (2007). Both the archaeological and geological investigations have resulted in a number of publications.

The Directorate for Cultural Heritage holds a digital register of protected cultural heritage in Norway, *Askeladden*. This register is still being developed and it will ultimately also include all recent decisions according to the Cultural Heritage Act in relation to the sites. Aerial photographs of the sites (2011) have been digitised and are kept in the photo database of the directorate.

The County Authority of Sogn og Fjordane holds records connected with the maintenance and management of the quernstone landscape.

7.D
ADDRESS WHERE INVENTORY, RECORDS AND ARCHIVES ARE HELD

ÞINGVELLIR (1)

Þingvellir National Park
Austurstraeti 12
101 Reykjavik
Iceland

The Cultural Heritage
Agency of Iceland
Suðurgata 39
101 Reykjavík
Iceland

The National Museum of Iceland
Suðurgata 41
101 Reykjavík
Iceland

JELLING (2)

Moesgård Museum
Moesgård Allé 20
DK-8270 Højbjerg
Denmark

National Museum of Denmark
Frederiksholms Kanal 12
DK-1220 Copenhagen K
Denmark

Royal Jelling
Gormsgade 23
DK-7300 Jelling
Denmark

THE TRELLEBORG FORTRESSES (3)

Hobro Museum/ Museum of
Northern Jutland
Vestergade 21
DK-9500 Hobro
Denmark

Moesgård Museum
Moesgård Allé 20
DK-8270 Højbjerg
Denmark

National Museum of Denmark
Frederiksholms Kanal 12
DK-1220 Copenhagen K
Denmark

Vikingeborgen Trelleborg
Trelleborg Allè 4
Hejninge
DK-4200 Slagelse
Denmark

DANEVIRKE AND HEDEBY (4)

Archäologisches Landesamt
Schleswig-Holstein
Schloss Annettenhöh
Brockdorff-Rantzau-Str. 70
D-24837 Schleswig
Germany

Stiftung Schleswig-Holsteinische
Landesmuseen
Schloß Gottorf
D-24837 Schleswig
Germany

GROBIŅA BURIALS AND SETTLEMENTS (5)

National History Museum
of Latvia
Pils laukums 3
Rīga LV-1050
Latvia

Institute of Latvian History
Akadēmijas laukums 1
Rīga, LV-1050
Latvia

Liepāja Museum
Kūrmājas prospekts 16
Liepāja, LV-3401
Latvia

State Inspection for Heritage
protection of Latvia
M. Pils Street 17/19
Rīga, LV-1050
Latvia

VESTFOLD SHIP BURIALS (6)

Riksantikvaren
(Directorate for Cultural Heritage)
PO Box 8196 Dep.
NO-0034 Oslo
Norway

Riksarkivet
(National Archives of Norway)
PO Box 4013 Ullevål Stadion
NO-0806 Oslo
Norway

Statsarkivet i Kongsberg
(Regional State Archives)
Frogs vei 44
NO-3611 Kongsberg
Norway

Kulturhistorisk museum,
Universitetet i Oslo
(Museum of Cultural History,
University of Oslo)
PO Box 6762. St. Olavs plass
NO-0130 Oslo
Norway

Vestfold fylkeskommune
(Vestfold County Authority)
Svend Foyns gate 9
NO-3126 Tønsberg
Norway

Vestfoldarkivet
(Vestfold County Archive)
Svend Foyns gate 9
NO-3126 Tønsberg
Norway

Borre Mounds
Horten kommune
(Horten Municipality)
PO Box 10
NO-3191 Horten
Norway

Oseberg Mound
Tønsberg kommune
(Tønsberg Municipality)
PO Box 2410
NO-3104 Tønsberg
Norway

Gokstad Mound
Sandefjord kommune
(Sandefjord Municipality)
PO Box 2025
NO-3202 Sandefjord
Norway

HYLLESTAD QUERNSTONE QUARRIES (7)

Riksantikvaren, Directorate
for Cultural Heritage
Dronningensgate 13
PO Box 8196 Dep.
NO-0034 Oslo
Norway

Tel: (+47) 2294 9499,
(47) 9820 2810
Fax: (+47) 2294 0404
E-mail:
lr@ra.no, postmottak@ra.no

Topographical Archive
University Museum of Bergen
The Cultural History Collections
Harald Hårfagresgt. 1
NO-5800 Bergen
Norway

Tel: (+47) 5558 0000
Fax: (+47) 5558 9364
E-mail: post@bm.uib.no

Sogn og fjordane fylkeskommune
(Sogn og Fjordane County
Authority)
Kulturavdelinga,
Department of Culture
PO Box 173
NO-6801 Førde
Norway

Tel: (+47) 5765 6100
Fax: (+47) 5765 6101
E-mail: postmottak.kultur@sfj.no

Hyllestad kommune
(Hyllestad Municipality)
NO-6957 Hyllestad
Norway

E-mail: postmottak@hyllestad.
kommune.no
Norsk Kvernsteinssenter
(Norwegian Millstone Centre)
NO-6957 Hyllestad
Norway

E-mail: post@kvernstein.no

7.E
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9 SIGNATURES ON BEHALF OF THE STATES PARTIES

LIST OF FIGURES

STYRELSEN
DANISH AGENCY FOR CULTURE

STATE INSPECTION
FOR HERITAGE PROTECTION
REPUBLIC OF LATVIA

Archäologisches
Landesamt
Schleswig-Holstein

MENNTA- OG
MENNINGARMÁLARÁÐUNEYTIÐ
Ministry of Education, Science and Culture

RIKSANTIKVAREN
Riksantikvaren - Directorate for Cultural Heritage