
The Archaeological Border Landscape of Hedeby and the Danevirke (Germany) No 1553

Official name as proposed by the State Party

The Archaeological Border Landscape of Hedeby and the Danevirke

Location

Districts of Schleswig-Flensburg and Rendsburg-Eckernförde
State of Schleswig-Holstein
Germany

Brief description

The Danevirke is a fortification running across the Schleswig Isthmus that separates the Jutland Peninsula from the rest of mainland Europe. It is represented by a series of 22 components that extend for a total length of 33 km, marking a border across the peninsula from the 6th to 12th centuries CE. The archaeological site of Hedeby is surrounded by part of the Danevirke. It was a trading town that flourished during the 9th and 10th centuries, a time when the Danevirke was rebuilt twice, first to enclose and protect Hedeby and then once more to place it on the Danish side. Hedeby also had direct access to the Baltic Sea, contributing to the trade from east to west as well as from north to south across the border.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 22 sites.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (12 July 2017) paragraph 47, it has been nominated as a *cultural landscape*.

1 Basic data

Included in the Tentative List

28 January 2016

International Assistance from the World Heritage Fund for preparing the Nomination

None

Date received by the World Heritage Centre

12 January 2017

Background

This is a new nomination. It was previously a part of a transnational serial nomination of Viking era sites (2014, ref. 1476) which was deferred by the World Heritage Committee Decision 39 COM 8B.22.

Consultations

ICOMOS has consulted its International Scientific Committee on Archaeological Heritage Management and several independent experts.

Technical Evaluation Mission

An ICOMOS technical evaluation mission visited the property from 14 to 17 September 2017.

Additional information received by ICOMOS

On 27 July 2017, the State Party communicated to ICOMOS information on the status of proposed developments in the buffer zone and surrounding area. This has been included in the relevant sections below.

An Interim report was sent by ICOMOS to the State Party on 22 December 2017 requesting more information on the justification for the inscription. Additional information on the nature of Hedeby as a trading town and its relationship to the Danevirke was received on 26 February 2018 and has been included in the relevant sections below. At this time, the State Party also provided a short thematic analysis of similar trading towns in northern Europe.

Date of ICOMOS approval of this report

14 March 2018

2 The property

Description

Hedeby and the Danevirke are two closely related features located in northern Germany, the districts of Schleswig-Flensburg and Rendsburg-Eckernförde, in the state of Schleswig-Holstein. Hedeby is an archaeological site, the remains of an emporium or trading town, surrounded by a semi-circular earthen rampart, with traces of streets, buildings, and plots of land inside. Jetties and market areas were located along the shoreline. Cemeteries were located inside and outside the wall and a hill fort overlooked the town on the north. The Semicircular Wall surrounding the town was connected to the rest of the defensive system of the Danevirke through the Connection Wall. Hedeby is presently an archaeological park, mostly open space with a few structures built to represent the originals and an accompanying museum. Three inscribed runestones have been found in the immediate area of Hedeby.

The defensive system of the Danevirke combines natural obstacles such as open water and peaty lowlands, with structures such as earthen ramparts, palisades, ditches, stone and brick walls and an offshore work in the water. These works cross the Schleswig Isthmus at its narrowest point and portions were rebuilt at least twice to follow a different path. The Danevirke was also effectively a

portage route, allowing passage over land from the North Sea via the Treene River to Hedeby located on an inlet of the Baltic Sea, bypassing the sea route around the Jutland Peninsula.

The Crooked Wall is the westernmost portion of the Danevirke, stretching 7.5 km from near the River Treene east to the Main wall. It was built as an earthen rampart. The Main Wall runs for 5.5 km from the Crooked Wall to the shore of Lake Dannewerk, a small lake that has now been drained. This section has seen the most rebuilding and was at one time, the most robust portion of the entire system, with ditches and stone and brick facing. The North Wall is 1.5 km long, from the east side of Lake Dannewerk to the Schlei flats and was a rampart. The Connection Wall starts beside the North Wall on the shore of Lake Dannewerk but runs at a different angle further south to meet the Semicircular Wall that surrounds Hedeby. The Kovirke is another rerouting of the wall again further south, running 6.5 km in almost a straight line from the Schlei Flats in the west to meet open water at Selker Noor in the east. The Offshore work is east of Hedeby in the Schlei Fjord and consists of 670 metres of wooden cribwork and traces of posts in the shallow water. Finally, the east wall connects the Osterbek River and Windeby Noor, a bay of the Baltic Sea. It is in two sections that run for a total of 5.5 km.

The 22 individual components of the serial nomination gather the Crooked Wall, the Main Wall, the Connection Wall, the North Wall, the Arched Wall, the archaeological site of Hedeby including the market town, the harbour, the Semicircular Wall, the hill fort and the cemeteries, the Kovirke, the Offshore Work and the East Wall.

History and development

The nomination dossier considers developments at the base of the Jutland Peninsula before, during and after the Viking era, from the very late 8th century to the 11th century CE. This evaluation is careful to use this device to refer only to a time period, equivalent to the Early Middle Ages, rather than to a people or culture. In additional information received in February 2018, the State Party stresses that the term “Viking Age” as used in the nomination dossier also refers only to a chronological period from the 8th to 11th centuries CE.

The Danevirke was built, extended, and rebuilt over a period of centuries. Both documentary and archaeological sources contribute to understanding the history of the property, although the sources are not always in agreement. The earliest part of the Danevirke, the Main Wall, existed before the Viking era, well before the 8th century CE, and the archaeology suggests that it was rebuilt with a fieldstone facing around 740 CE. Historical records suggest that this occurred in 808. A great expansion of the fortification took place a short time afterward with the construction of the Crooked Wall, the North Wall, the Offshore Work and the East Wall.

Hedeby was a small settlement before the 9th century, but it soon grew into an emporium, or trading town. Specialised craftsmen produced items for the home market as well as for export. Coins were minted there between 820 and 860 and again in the 10th century and there is a report that church was built ca. 850, although this has not been found. By 900, better quality houses were being built and the harbour jetties were extended. The town was captured by the East Frankish king in 934, although it does not seem to have been held for long. At mid-century, the Semi-circular Wall was built around the town and the Connection Wall linked it to the main part of the Danevirke. The Franks took the town again in 974, and soon after the Kovirke was built, placing Hedeby clearly on the Danish side of the fortification. Its importance as an emporium declined in the 11th century and it was captured again in 1050 and in 1066, marking the end of its regional importance.

The final development of the Danevirke took place after 1162 when the Danish king had the face of the Main Wall covered in bricks. In the mid-19th century the defensive line was reactivated and a series of 27 bastions were built along its length. Portions of both Hedeby and the Danevirke were first protected in 1950 as part of a nature reserve.

3 Justification for inscription, integrity and authenticity

Comparative analysis

The comparative analysis presented by the State Party takes an approach based on four indicators or sets of values. The first one is to be situated in the borderland between two or more territories or cultural traditions within the geo-chronological region of Western and Northern Medieval Europe. The second indicator is to designate a demarcation or constitute fortified boundaries. The other indicator is to include important place(s) of trade and communication and the last one to include archaeological sources of high scientific relevance and sites of outstanding integrity and authenticity.

The properties selected for comparison include cultural landscapes and archaeological heritage in the broadest sense, and more specifically feature cultural landscapes within a borderland with a pronounced archaeological heritage containing a trading centre and/or a large linear defensive system. Comparisons are made with areas with similar regional and chronological features and also to those with a similar thematic scope.

Sites considered for regional and chronological comparison include other Viking era World Heritage sites (Birka and Hovgården, Sweden (1993, criteria (iii), (iv)); Jelling Mounds, Runic Stones and Church, Denmark (1994, criterion (iii)); L'Anse Aux Meadows National Historic Site, Canada (1978, criterion (vi)) and Þingvellir National Park, Iceland (2004, criteria (iii), (vi))) and Tentative List sites (Kujataa Greenland: Norse and Inuit

Farming at the Edge of the Ice Cap, Denmark (now inscribed, 2017, criterion (v)); Grobiņa archaeological ensemble, Latvia; Meanders of the Upper Daugva, Latvia; and the Trelleborg Fortresses, Denmark. The comparison also looked at trading settlements (Birka, Sweden; Ribe, Denmark and Kaupang, Norway) and defensive walls (Götaverket, Sweden and Kräklingbo, Sweden). Thematic comparisons were also made to inscribed cultural landscapes (Bam and its Cultural Landscape, Iran) and inscribed fortified boundaries (Citadel, Ancient City and Fortress Buildings of Derbent, Russian Federation; Frontiers of the Roman Empire, Germany and United Kingdom, and the Great Wall, China)), and unlisted fortified boundaries (Anastasian Wall, Turkey, Offa's Dyke, United Kingdom, and Hexamilion Wall, Greece).

The comparative analysis was supplemented by a short thematic study received in February 2018 that examined trading towns in northern Europe during the Early Middle Ages. This study situated Hedeby among the other Scandinavian towns discussed above, and it also examined settlements and trade routes stretching from the north Atlantic to the Volga river basin (Dublin, Ireland; Jorvik (York), Lundenwic (London) and Ipswich, all in the United Kingdom; Quentovic, France; Dorestad, Netherlands; Reric, Germany; Grobina, Latvia; and Staraja Ladoga and Gorodišče (Novgorod), both in the Russian Federation). Of these towns, Hedeby stands out for its size, preservation, lack of later urban disturbance and the range of activities and functions represented at the site.

Of these sites, the State Party considers that none are fully comparable to Hedeby and the Danevirke in all four aspects of the analysis. The Frontiers of the Roman Empire comes closest to matching the values of this property, although it dates from an earlier era. Offa's Dyke also has some similarity although it lacks the aspect of trade. Ribe, and Kaupang also have strong similarities in trade and the quality of their archaeological deposits, but all these latter sites lack aspects related to borderlands and linear defensive works.

ICOMOS considers that Hedeby can very favourably be compared to other archaeological sites that represent trading towns. For instance, Birka, Sweden, is another Viking era trading settlement. It is also enclosed by an earthen rampart, a hill fort is adjacent, and it has a waterfront component with jetties projecting over the harbour. In contrast to Birka, Hedeby features waterlogged soil conditions that promote the preservation of organic objects, has shipwrecks in its harbour, offshore fortifications nearby and is far larger than Birka. Birka is associated with an adjacent royal residence at Hovgården, which Hedeby seems to lack, although a royal shipwreck was discovered in Hedeby harbour.

ICOMOS considers that on its own, Hedeby stands out compared to Birka, as it endured as a main trading settlement for several decades longer than Birka and it is

at least double in size. Furthermore, other trading emporia in the region such as Kaupang and Ribe were both abandoned in the mid 9th century, while Hedeby was inhabited for two more centuries. Kaupang is smaller, the extent of Ribe in the early Viking era has not been determined, and both Kaupang and Ribe as archaeological sites have poorer preservation than Hedeby.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Justification of Outstanding Universal Value

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The features of the natural landscape and human made structures were combined intentionally to form a border landscape at a natural bottleneck between the 8th and 11th centuries CE. At the Schleswig Isthmus, the singular geographic situation created a strategic link between Scandinavia, the European mainland, the North Sea and the Baltic Sea.
- The remains of structures of a notably defensive character, buildings, harbour jetties, burials and settlement infrastructure of Hedeby and the Danevirke are well preserved.
- The archaeological evidence, including large amounts of organic finds, provides an outstanding insight into the significant political power exercised by Danish kings, the expansion of trading networks and cross-cultural exchange over several centuries.

Additional information received from the State Party in February 2018 shifts the emphasis of the justification away from the border landscape concept (and arguments related to evolving political power) towards viewing Hedeby as an eminent example of a trading town that is connected to the Danevirke, a fortified border. ICOMOS considers that this justification is appropriate.

The serial approach is justified by State Party since Hedeby and the Danevirke are closely interwoven and only convey their entire value as an ensemble.

ICOMOS considers the serial approach to be justified to reflect the interrelationship between the earthworks that mark the border (the Danevirke) and the trading town (Hedeby) situated at the border. A serial approach to the Danevirke is also justified in that it was not one structure across the base of the Jutland Peninsula, but several segments that were separated by natural features. The archaeological nature of the nominated property also supports the serial approach as it only includes those portions where the original monument has survived while excluding areas where losses have occurred e.g. at road crossings and in villages.

The State Party argues that this nomination is a cultural landscape, characterizing it as an archaeological border landscape. ICOMOS considers that what is proposed is not a cultural landscape, but rather the components are discrete archaeological features and monuments. The nominated property boundaries have been drawn to exclude natural features such as dry ground (the Geest), rivers, bogs, fjords and other impassable areas that surround the archaeological features and provide a context to their function. Together, all of these features would make a complete landscape, but this is not what has been nominated.

In additional information received in February 2018, the State Party accepts the consideration of ICOMOS and proposes that the nominated property be considered as an archaeological site, rather than as a cultural landscape.

Integrity and authenticity

Integrity

Hedeby and the Danevirke encompass archaeological sites and structures of the 6th to 12th centuries, which represent a trading town and an associated defensive wall complex.

ICOMOS considers that the nominated area includes all elements that represent the values of the property – the monuments and ramparts, locations of significance, and all the archaeological remains that embody the long history of the Hedeby-Danevirke complex. The components representing the Danevirke reflect the stages of construction and the evolution of the defensive works, as sections were reconstructed and new portions of walls were built. The buffer zone is a protective and managerial entity that preserves important viewsheds and ensures that the core elements of the nominated area will be maintained for the future.

ICOMOS notes that some losses have occurred in the Danevirke that have created gaps in the border structure which was originally a unified whole, for example gaps exist at road crossings or in villages. Nevertheless, what remains is extensive enough and testifies to the whole range of construction techniques and building episodes, including changes to the alignment of the wall. ICOMOS consider that these losses do not affect the integrity of what has been proposed for inscription.

ICOMOS also notes that the physical condition of the monuments varies along the length of the Danevirke, where some areas stand several metres high while others, such as parts of the Crooked Wall, have been almost removed by ploughing. ICOMOS considers that this does not affect the overall integrity of the property. The deterioration processes have been arrested, management provisions are in place to prevent future impacts from agriculture, and in portions where the line of the wall is less visible, signage and paths mark its course.

Several bastions were constructed on and near the line of the Danevirke during the 1864 war between Denmark and Germany, although only a few foundations now remain. Two bastions, numbered 14 and 16, were built directly into the wall incorporating the Viking-Age defences within the later work. ICOMOS considers that the remains of the bastions do not detract from the integrity of this component of the property as they do not dominate the earlier fortification and are clearly different in era and origin.

The only threat to the visual integrity of the property is from wind turbines, which in a few spots along the Danevirke can be seen on the horizon where the terrain is low-lying and the viewshed extends far beyond the buffer zone. They are so far away that they make only a very minimal impact. In addition, the place where they are most prominent is at Bastion 14, which is a Danish fortification from the 19th century and thus not primarily a part of the visitor experience of the Danevirke.

The existing wind turbine near Hedeby does not significantly impact the visual integrity of the site. It is to be removed within the next few years. No new turbines are allowed within the nominated property or the buffer zone.

Authenticity

ICOMOS considers that the conditions of authenticity of the nominated property regarding the form, design, materials and substance of the monuments have been met. Hedeby has not been inhabited or otherwise built upon since it was abandoned, ensuring the authenticity of its archaeological deposits. Some 95% of the town remains unexcavated and the other 5% has been studied using established archaeological methods and analyses. The Danevirke has also been thoroughly documented and has only seen rebuilding at the 19th century bastions, the remains of which are clearly distinguishable from the older sections of the wall.

ICOMOS considers that the conditions of integrity and authenticity have been met.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (iii) and (iv).

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;*

This criterion is justified in the revised version from the State Party on the grounds that Hedeby and the Danevirke are outstanding testimonies to the cultural traditions of Northern Europe in the Viking Age between the 8th and 11th centuries. They are key scientific sites for the interpretation of historic developments in Viking-Age Europe.

ICOMOS considers that Hedeby and the Danevirke are exceptional and representative of an important period of political and social change in Europe prior to and during the Viking era. The Danevirke marks the southern frontier of the early Danish realm separating the pagan agrarian societies of Jutland (also other parts of Denmark and Scandinavia) from the Christianized, post-Roman Frankish and other kingdoms of Northern Europe to the south.

The expansion of the Danevirke earthwork sequence had an intimate relationship with the development of the trading centre. Together they provide a physical manifestation of the ways that trading centres and physical frontiers operated in the border zone before, during and after the Viking era.

ICOMOS considers that this criterion has been demonstrated.

Criterion (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;*

This criterion is justified in the revised version from the State Party on the grounds that Hedeby and the Danevirke represent a significant cultural, political and economic phase in the history of Northern Europe, reflecting the development of borders in connection with the formation of states in Viking-Age Europe between the 8th and 11th centuries. Hedeby and the Danevirke illustrate the development over centuries of the architecture of fortified boundaries in conjunction with trading centres which are strategically integrated into their natural environment.

ICOMOS considers that Hedeby presents an exceptional microcosm of the Viking era, its society and economy which was the result of developing craft specialisation and trade. It displays the progression from open settlement to an ordered layout of property plots, with discrete craft and activity areas and the development of its harbour facilities. The pre-Viking era southern settlement and the settlement itself surrounded by a semi-circular rampart have yielded an extensive and varied array of evidence and finds. Parts of the Hedeby settlement are well preserved due to the waterlogged nature of its soils and its waterfront.

There is no doubt that Hedeby is the best preserved trading port-town of its type from the 8th to late 11th century in northern Europe. It is also distinctive because of its relationship to the Danevirke earthworks.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the serial approach is justified and ICOMOS considers that the selection of sites is appropriate.

ICOMOS considers that the nominated property meets criteria (iii) and (iv) and the conditions of authenticity and integrity.

Description of the attributes

Attributes of the property include the archaeological remains of Hedeby including traces of roads, structures and cemeteries. In the harbour adjacent to the town are the archaeological deposits related to jetties that extended over the water and four known shipwrecks. Hedeby is surrounded by a semi-circular rampart and overlooked by a hill fort. Three runestones have been found nearby. Attributes related to the Danevirke include sections of the Crooked Wall, the Main Wall, the North Wall, the Connection Wall, the Kovirke, the offshore works, and the East Wall with either above ground vestiges or archaeological remains below the ground or underwater.

4 Factors affecting the property

There are only a few environmental pressures that pose any serious risk to the monuments. Frost damage is a concern in the portion of the main wall covered in a brick facing. Growth of trees and vegetation can impact or cover the monuments. A study undertaken in conjunction with the preparation of the nomination dossier suggests that groundwater levels are still sufficiently high at Hedeby to preserve organic remains and that there is no significant risk of future drops in the water table. There is no appreciable threat from natural disasters.

There are some development pressures with potential to affect the property. Sources of risk include attempts to expand urban development, ongoing agricultural activities, and the creation of new infrastructure, especially wind turbines.

From the additional information submitted by the State Party on 27 July 2017, there is a proposal to build several houses in the lee of the Danevirke near the Kovirke wall in Selk municipality. Planning permission has been refused in line with the general legal protections and conservation plan for the property. An appeal has been launched, but there is confidence that it will fail. ICOMOS recommends that the State Party keep the World Heritage Centre informed of the result of the appeal.

Much effort has been directed to the mitigation of visual and other threats from the wider landscape (an area beyond the buffer zone), mostly in the form of careful selection of location for renewable energy wind turbines. Construction of new wind turbines has been banned outright within the nominated property and buffer zone, and new turbines in the wider area (i.e. within the viewshed of the property) shall be subject to a visibility study to determine whether they can be built without impacting the property. The few windmills already existing near the Danevirke are to be dismantled once

they are at the end of their useful life. This applies as well to the single turbine visible across the Noor from Hedeby. This installation is already old, and will be removed within the next few years.

Cultivation of arable land around the monuments is an issue, as ploughing can impact buried attributes. Measures are in place to gradually shift from raising ploughed crops to pastoral grazing. In the short term, an ecological buffer has been created around the length of the Danevirke wall and its ditches. ICOMOS considers that of all the factors affecting the property, this is the only one that is not entirely resolved, but at the same time the damage to the sites has clearly been arrested.

Tourist numbers to the property and in the wider region are already considerable and may be expected to increase in the future. Some wear on footpaths caused by visitors is visible, but minimal in scale.

ICOMOS considers that the main threats to the property are pressures from development, frost damage and tourism.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

The boundaries of the property are very clearly defined, and include all the elements appropriate for the expression of the proposed Outstanding Universal Value. The likelihood of finding an entirely new rampart system is very low. There is similarly very little potential for finding new traces of the Danevirke or other archaeological deposits at the terminal points of the wall, at Hollingstedt in the west and the end of the East Wall in the east. In both areas, the ramparts have either already disappeared or else run out into marshes; the structural integrity and original line of the walls is therefore preserved and essentially complete.

The buffer zones have been designed not only to provide maximum protection for the nominated area but also to respect current compatible land uses. In addition land use regulations extend in their effects beyond the actual borders of the property and the buffer zone, for example in the preservation of long-distance views that show the monuments in their context and augment their understanding for the visitor. This is the so-called 'wider setting', in effect a third level of boundary which plays a role in the management of viewsheds of the nominated property. The 'wider setting' does not have the same level of complete protection as the buffer zone does.

ICOMOS considers that the boundaries of the nominated property and of its buffer zone are adequate.

Ownership

Two thirds of the property is publicly owned. A large portion of Hedeby is owned by the Foundation of the State Museums of Schleswig-Holstein. Large parts of the Danevirke are owned by the District of Schleswig-Flensburg, while a segment of the Kovirke is on the federally owned Schleswig Air Base (Jagel airport). The remaining one third of the property is privately owned, split among 134 owners, none of whom holds more than 3% of the total property.

Protection

The nominated property is protected by laws and regulations regarding cultural heritage and archaeological remains at the three levels of government in Germany: federal, state (in this case, Schleswig-Holstein), and district. The bureaucracy is complex, but it has clear lines of communications and responsibilities, which in turn offer the positive benefit of multiple parallel strands of heritage protection.

The Monument Preservation Act for the State of Schleswig-Holstein provides the highest level of protection. All of the property is listed under this act with each individual parcel of land representing a listed monument. Other protected area legislation includes the Nature Conservation Act of Schleswig-Holstein, the Building Act, the Federal Soil Conservation Act, and the Spatial Planning Act. The majority of the nominated property and buffer zone is also classed as a nature protection area under federal regulation, and as a landscape protection area under district regulation.

The district authority is responsible for authorising building permits and imposing restrictions in areas of archaeological interest, and offers counselling on heritage protection at the most local level.

ICOMOS considers that the legal protection in place is adequate.

Conservation

Hedeby and the Danevirke have been the subject of archaeological surveys and excavations, together with historical studies, for well over a century, producing a rich trove of evidence that attests to the sites and their character. The components of the nominated property are described in the state's ancient monument database, which has now been digitised and is available online.

ICOMOS considers that in general, the state of conservation is good. The coordination of the management and maintenance plans for the Hedeby-Danevirke complex shows that assessments of threats, conservation needs and mitigation strategies are all integrated within a seamless set of planning policies.

The bricked portion of the Main Wall (sometimes known as Valdemar's Wall) presents a special challenge. The bricked face is only exposed in the Archaeological Park near the Danevirke Museum. Built c.1160-70, it is the oldest brick structure in the North. The bricks were made

of local clay (the quarry pits can be seen in the woods on the 'Danish' side), and set in front of the earlier wall facing. The bricks and mortar are vulnerable to damage from frost and plant growth. Since 2015, this wall section has been undergoing an intensive standing structure analysis, including 3D scanning, that has plotted the use of different materials and several kinds of mortar, the impact of vegetation, and differential preservation along the various sections of the wall. The resulting preservation task is the major future challenge to be faced in the context of the nominated property. Initially, conservators considered simply encasing the whole of the exposed brick wall sections in glass, but the visual impact would have been too great; an open roof overhead would have had a similar effect. The preferred option is preservation *in situ* and conservation work is now under way, with the final restoration of the wall due for completion in 2018.

ICOMOS recommends that the planned conservation work at Valdemar's Wall be completed and that follow up monitoring and mitigation be undertaken at regular intervals to limit the future effects of frost damage and vegetation growth.

The reed beds along the Hedeby waterfront have been a special cause for concern as the roots can disturb the buried archaeological layers. The reeds are gradually being eradicated and replaced with brackish saltmarsh plants. The reeds provide important habitats for birds and other wildlife, so as they are removed these environments are being recreated outside the property and buffer zone in areas to which the animals are being gradually transplanted. The habitats are thus conserved, while the archaeological site is also preserved and maintained.

The modern settlements near Hedeby have quite acute drainage needs resulting from the low-lying marshy environment, and these have been accommodated by means of underground pipes that channel water along the approximate course of the Viking-Age stream that bisected Hedeby. In places this runs above ground, thus preserving the original feel of the site while also resulting in effective water management.

ICOMOS considers that the nominated property is in a good state of conservation and that appropriate active conservation measures are being undertaken.

Management

Management structures and processes, including traditional management processes

Site management for the Hedeby-Danevirke complex and the World Heritage nomination is the responsibility of *Archäologisches Landesamt Schleswig-Holstein* (State Archaeology Department of Schleswig-Holstein), with a brief that encompasses coordination, financing, updating plans and monitoring. As a government agency, they are resourced with national and regional

funds, and staffed with people with the relevant expertise. The appropriate levels of management expertise are in place at this level with overall responsibility for the property.

Policy framework: management plans and arrangements, including visitor management and presentation

At the highest level is an overarching Management Plan, supplemented by separate plans for Maintenance, Tourism Development, Regional Development, Property Management and a range of policies relating to visitors. This plan was drafted in 2013 in preparation for the 2015 transnational serial nomination and covers the same property area as the current nomination. The plan is in effect now. It applies to all components and the buffer zones.

A significant feature of the Management Plan is the resolution of friction between the conservation needs of natural and cultural heritage. ICOMOS notes that the integrated approach to these issues in the Hedeby-Danevirke complex, and especially in the environs of Hedeby itself, is now used as the best practice example of integrated conservation for the entire state of Schleswig-Holstein.

ICOMOS considers that the planning and ongoing management of the sites is effective.

Two museums form the focal points of interpretation within the property, situated at Hedeby itself and at Dannewerk village. Tourist services, including the main museum buildings, a restaurant and car parking are outside the nominated property. ICOMOS notes that the two museums are supplemented by a handful of small local exhibits, mostly occupying single rooms in repurposed locales such as disused garages or bus shelters.

Beyond the museums, the prime interpretative interface is through signage, coordinated across the monument complex, along the whole length of the Danevirke and into the area enclosed by the semi-circular rampart at Hedeby. A coordinated set of information panels have been installed throughout, including panels designed for accessibility. Where the rampart line crosses a road, leaving a gap, or wherever its track is unclear in the landscape, signs orient the visitor and make the line of the Danevirke easy to follow with minimal visual impact. Cycle paths have been built along much of the Crooked Wall, providing views out over the plain. A design manual has been created to serve as a framework and tool kit for reshaping and creating new public spaces, paths, viewpoints and signage on-site and in the surrounding area.

ICOMOS recommends that tourism levels and potential impacts be closely monitored by the State Party.

Involvement of the local communities

A charitable society, Danewerk-Haithabu e.V. (*eingetragener Verein*) provides a platform for public land-owners (institutions, municipalities, districts) and individuals within the nominated area to discuss matters of mutual interest.

ICOMOS notes that one positive effect of local liaison is a renewed community interest and involvement in heritage protection, and the creation of a 'neighbourhood watch' to monitor any possible breaches of planning legislation, illegal activity and building on ancient monuments. This provides a powerful local tool – and local investment – to ensure the effective protection of the sites, over and above the formal legal protections in place. There is a very clear and consistent majority of support for the nomination among all levels of government, from the national government through the state level, regions, municipalities and districts.

ICOMOS considers that the legislative protection and management regime for the Hedeby and Danevirke monuments within the nominated property and the buffer zone are both comprehensive and effective.

ICOMOS recommends that current management efforts to discourage urban development in the buffer zone, to reduce the effect of agricultural practices upon the property, and to mitigate the effects of proposed wind turbines in the wider area be continued.

ICOMOS considers that the management system for the property is adequate.

6 Monitoring

Baseline conservation data was collected from 2006 to 2010 and this constitutes the reference point for monitoring. Specific factors that are monitored include erosion, effects of agriculture and weed growth at all monuments, the loss of bricks on Valdemar's Wall, groundwater levels, obstruction of views and numbers of visitors. Monitoring frequencies are annual or semi-annual. Results from the monitoring program have informed the current management plan.

ICOMOS considers that the monitoring program is satisfactory.

7 Conclusions

The Archaeological Border Landscape of Hedeby and the Danevirke have preserved archaeological remains from the periods before, during and after the Viking era. Hedeby represents an emporium, a town based on trade north and south across the Schleswig Isthmus and east and west from the Baltic Sea to the North Atlantic. The town was connected during its peak to the Danevirke, a

series of defensive walls whose development predates Hedeby and whose final elaboration occurred a century after Hedeby was abandoned.

ICOMOS considers that the comparative analysis justifies inscription of this property on the World Heritage List; that the nominated property meets criteria (iii) and (iv) and the conditions of integrity and authenticity. The serial approach is justified and the selection of sites is appropriate.

The main threats to the property are pressures from development, frost damage and tourism. The boundaries of the nominated property and of its buffer zone are adequate and the legal protection in place is adequate. The property is in a satisfactory state of conservation and appropriate active conservation measures are being undertaken. The management system for the property is adequate and the monitoring program is satisfactory.

ICOMOS considers that the property is not a cultural landscape and the State Party concurs with the view. As a result, ICOMOS recommends that the name of the property be changed to "The Archaeological Border complex of Hedeby and the Danevirke".

8 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that The Archaeological Border Landscape of Hedeby and the Danevirke, Germany, be inscribed on the World Heritage List on the basis of **criteria (iii) and (iv)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The trading centre of Hedeby and the defensive system of the Danevirke consist of a spatially linked complex of earthworks, walls and ditches, a settlement, cemeteries and a harbour located on the Schleswig Isthmus of the Jutland Peninsula during the 1st and early 2nd millennia CE. This singular geographic situation created a strategic link between Scandinavia, the European mainland, the North Sea and the Baltic Sea. A Baltic Sea inlet, rivers and extensive boggy lowlands constricted the north-south passage to the peninsula while, at the same time, providing the shortest and safest route between the seas across a narrow land bridge.

Because of its unique situation in the borderland between the Frankish Empire in the South and the Danish kingdom in the North, Hedeby became the essential trading hub between continental Europa and Scandinavia as well as between the North Sea and the Baltic Sea. For more than three centuries – throughout the entire Viking era – Hedeby was among the largest and most important among the emporia – the new trading towns that developed in Western and Northern

Europe. In the 10th century, Hedeby became embedded in the defensive earthworks of the Danevirke which controlled the borderland and the portage.

The importance of the border and portage situation is showcased by large quantities of imports from distant places among the rich assemblages in Hedeby. The archaeological evidence, including large amounts of organic finds, provides an outstanding insight into the expansion of trading networks and cross-cultural exchange as well as into the development of northern European towns and the Scandinavian elites from the 8th to 11th centuries.

Attributes of the property include the archaeological remains of Hedeby including traces of roads, structures and cemeteries. In the harbour adjacent to the town are the archaeological deposits related to jetties that extended over the water and four known shipwrecks. Hedeby is surrounded by a semi-circular rampart and overlooked by a hill fort. Three runestones have been found nearby. Attributes related to the Danevirke include sections of the Crooked Wall, the Main Wall, the North Wall, The Connection Wall, the Kovirke, the offshore works, and the East Wall with either above ground vestiges or archaeological remains below the ground or underwater.

Criterion (iii): Hedeby in conjunction with the Danevirke were at the centre of the networks of mainly maritime trade and exchange between Western and Northern Europe as well as at the core of the borderland between the Danish kingdom the Frankish empire and over several centuries. They bear outstanding witness to exchange and trade between people of various cultural traditions in Europe in the 8th to 11th centuries. Because of their rich and extremely well preserved archaeological material they have become key scientific sites for the interpretation of a broad variety of economic, social and historic developments in Viking Age Europe.

Criterion (iv): Hedeby facilitated exchange between trading networks spanning the European continent, and – in conjunction with the Danevirke – controlled trading routes, the economy and the territory at the crossroads between the emerging Danish kingdom and the kingdoms and peoples of mainland Europe. The archaeological evidence highlights the significance of Hedeby and the Danevirke as an example of an urban trading centre connected with a large-scale defensive system in a borderland at the core of major trading routes over sea and land from the 8th to 11th centuries.

Integrity

Hedeby and the Danevirke encompass archaeological sites and structures of the 6th to 12th centuries which represent a trading town and an associated defensive wall complex. The area includes all elements that represent the values of the property – the monuments and ramparts, locations of significance, and all the archaeological remains that embody the long history of

the Hedeby-Danevirke complex. The components representing the Danevirke reflect the stages of construction and the evolution of the defensive works, as sections were reconstructed and new portions of walls were built. The buffer zone is a protective and managerial entity that preserves important viewsheds and ensures that the core elements of the area will be maintained for the future.

Authenticity

The conditions of authenticity of the property regarding the form, design, materials and substance of the monuments has been met. Hedeby has not been inhabited or otherwise built upon since it was abandoned, ensuring the authenticity of its archaeological deposits. Some 95% of the town remains unexcavated and the other 5% has been studied using established archaeological methods and analyses. The Danevirke has also been thoroughly documented and has only seen rebuilding at the 19th century bastions, the remains of which are clearly distinguishable from the older sections of the wall.

Management and protection requirements

The property, its buffer zone and its wider setting are protected by the legal systems in place (e.g. listed monuments, nature protection areas, landscape protection areas). In addition, the majority of sites are owned by public bodies. The values of the sites are also considered and respected in public planning processes. The various protection and planning mechanisms and acts which apply directly to the landscape are sufficient to guarantee the protection and preservation of the Outstanding Universal Value of the property. Funding for the site management of the property is provided by the Federal State of Schleswig-Holstein and other public owners.

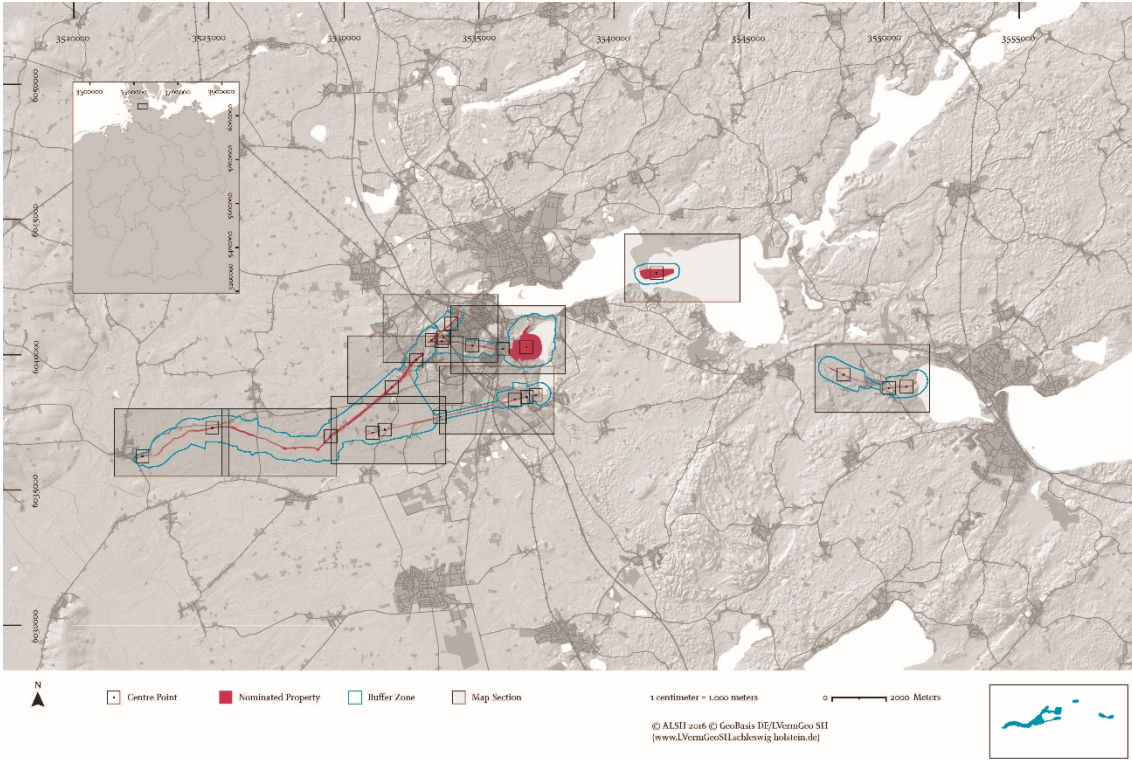
A site management plan was implemented in 2014. All the important stakeholders have committed to the aim of protecting, preserving, monitoring and promoting the Outstanding Universal Value of the property. The values, attributes, integrity and authenticity of the property are safeguarded and managed within the plan. In the long run, the core management issues are to increase awareness of the value of Hedeby and the Danevirke as an archaeological landscape and to retain that value by all important stakeholders participating in its management. The Management Plan aims at further integrating Hedeby and the Danevirke into their cultural, social, ecological and economic settings and to increase their social value to promote sustainable development in the region. Future threats to the landscape, such as wind turbines, land use, housing developments and visitor impact, as well as natural agents such as plants and animal activities, need to be tackled collaboratively. Some specific threats such as damage to Valdemar's Wall due to exposure or damage require monitoring and mitigation at regular intervals.

Additional recommendations

ICOMOS recommends that the State Party give consideration to the following:

- a) Keeping the World Heritage Centre informed of the result of the appeal of the refusal of permission to build houses near the Danevirke,
- b) Continuing current management efforts to discourage urban development in the buffer zone, reduce the effect of agricultural practices upon the property, and to mitigate the effects of proposed wind turbines in the wider area,
- c) Completing the planned conservation work at Valdemar's Wall and undertaking follow up monitoring and mitigation at regular intervals to reduce the future effects of frost damage and vegetation growth,
- d) Closely monitoring tourism levels and potential impacts;

Moreover, ICOMOS recommends that the name of the property be modified to become "The Archaeological Border complex of Hedeby and the Danevirke".



Map showing the boundaries of the nominated property



Aerial view of Hedeby and the Semicircular Wall



The Crooked Wall