Røros Mining Town and the Circumference

Norwegian Nomination 2009 for extension of WHS Røros Mining Town

Nomination dossier

Executive Summary

Røros Mining Town was inscribed on the World Heritage List in 1980 on the basis of criteria (iii) (iv) (v). Norway hereby submits a proposal for an extension of the world heritage area and the determination of a buffer zone. This also entails a change of the name of the Property to "Røros Mining Town and the Circumference". The proposed extension was inscribed on the Tentative List in 2008.

State Party:
Miljøverndepartementet, Norwegian Ministry of the Environment

State:
Norway

Region, municipalities:

The proposed extension to the Property	The proposed buffer zone
County of Sør-Trøndelag • Røros municipality • Holtålen municipality	County of Sør-Trøndelag • Røros municipality • Holtålen municipality • Midtre Gauldal municipality
County of Hedmark • Engerdal municipality • Os municipality	County of Hedmark • Engerdal municipality • Os municipality • Tolga municipality • Tynset municipality

Name of the Property:
Røros Mining Town and the Circumference

Geographical coordinates:
The proposed extension makes the Property a serial nomination that consists of two areas and a transport route:

Town and Cultural Landscapes . North: 6943400. East: 314500
Femundshytta. North: 6913400. East: 336900
Winter Transport Route. North: 6917700. East: 322900
Coordinate System: WGS_1984_UTM_Zone_33N

Description of the boundaries

The three nominated world heritage sites are located in the Circumference, i.e. the area of privileges awarded by the Danish-Norwegian King to Røros Copper Works in 1646. The circular area of privileges has a radius of 45.2 kilometres, with its centre at the first workable mine, "Old Storwartz".

Town and Cultural Landscapes

These cover a large continuous area that includes the entire sweep of landscape surrounding the previously inscribed mining town as well as the urban agriculture and the most important mining landscapes, Storwartz and the Nordgruvefeltet field.

Femundshytta

This includes the industrial cultural landscape with traces of a smelter, water management systems and the community that grew up around them. After about 50 years of smelting at Røros most of the timber around the town had been consumed. The copper works then found it profitable to establish new smelters in forested areas and to transport the copper ore to these. The remoteness and the long distance between the mines and the smelters constitute one of the characteristics of mining operations at Røros. Femundshytta, operative 1743-1822, represents these smelters.

Winter Transport Route

The nominated part of the winter transport route starts at the outer limit of the Circumference in Tufsingdal and continues over Lake Korssjøen to Røros. Mining operations and the mining communities created an enormous need for transport. Up to the 1880 most of this took place during wintertime using horses or bullocks and sledges on frozen rivers and lakes. The nominated winter transport route represents this form of transport.

Buffer Zone

The outer limit of the Buffer Zone follows the rim of the Circumference, with the exception of the areas that are located in Tydal municipality and on the other side of the border with Sweden. The Property comprises historic sites and cultural landscapes that explain why Røros Mining Town came into existence and how it developed and functioned. However, the mining town cannot be fully portrayed without the Circumference. Norway therefore proposes that most of the Circumference should be awarded status as a buffer zone. The proposed buffer zone has high values in terms of the natural environment while at the same time there are traces of activities linked to Røros Copper Works in almost the entire area. Together the Property and the Buffer Zone constitute a totality in which Røros Mining Town has been the driving force that has stamped its mark on the entire area while being completely dependent on the resources provided by the Circumference (and by areas far beyond). The buffer zone places the Property in a broader historic and functional context, and in this way it contributes to safeguard the outstanding universal value of the Property.

Maps

Five A4 size maps:

- Røros Mining Town and the Circumference – Situation
- Administrative borders
- The World Heritage Sites and the Buffer Zone
- Town and Cultural Landscapes
- Winter Transport Route, Femundshytta

Justification

Statement of Outstanding Universal Value

The World Heritage Site Røros Mining Town and the Circumference comprises a unique mining town, established in 1646, built entirely of wood, and surrounded by a cultural landscape that shows in an outstanding and almost complete manner how the mining operations, transport and way of life had to be adapted to the requirements of the natural environment – the mountain plains, the cold climate, the remote location without roads and with marginal growth conditions for forests and agriculture. On this basis a unique culture developed that has disappeared in part, but outstanding testimony of its existence has been preserved.

Criteria under which the Property is nominated

Criterion (iii)

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

From the time copper ore was found in the mountains at Røros in 1644 and over the ensuing 333 years until the copper works went bankrupt in 1977 a unique culture developed in the remote and sparsely inhabited area. The uniqueness rests in particular on the testimony preserved that shows how technology and people could adapt to the remoteness of the location and climatic extremes in order to extract the valuable copper.

With German mining technology as a starting point, German, Danish, Swedish and Norwegian immigrants created a mining community under extreme conditions. The community developed in collaboration with the few farmers and the Sámi who already lived and worked in the area. Today there is no mining in the area, but Røros Mining Town and the traces of mining, smelters, transport systems and systems for water management, bear a unique testimony to the adaptation of technology to the requirements of the natural environment and the remoteness of the situation. Testimonies of the dual occupation of the inhabitants, mining and farming, is clearly seen in the preserved structure of the town and in the surrounding cultural landscape. The urban agriculture with its specialized system for use of resources show in an outstanding and coherent manner how people were forced to exploit to the full all available natural resources in order to survive and establish a community in an area that could not provide enough food for its own population. Transport was mainly done on frozen lakes and rivers during the winter. Testimonies of this activity are revealed by the stables and buildings, built on the farms and in the town, for overnight accommodation for those involved in transport.

A distinct and proud culture emerged in this setting. Inside the ‘free mining town’, the miners owned their own farms and had a relatively high degree of freedom vis-à-vis their employment at the copper works. Towards the end of the 1800s major changes took place in the field of mining and transport. The cultural heritage of this period such as flotation plants, cableways, a power station, railway tracks, etc are also preserved. As the importance of the copper works gradually diminished, the community successfully readjusted to new activities. Therefore when the copper works finally went bankrupt, the consequences for Røros Mining Town were undramatic.

The mining operations and the urban agriculture that involved keeping livestock have ended and the cultural heritage sites where these activities took place have fallen into disuse. Today Røros Mining Town is a living urban community based on industry, trade and tourism. However, the traces of the old mining culture remain in the cultural heritage sites as well as in the German-influenced place names and family names, in the dialect which contains many special words, the Røros pols dance, the Røros breed of cow, and in traditions such as the Røros Fair.

Criterion (iv)
(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.

Nordic towns of wooden construction are a significant expression of building traditions in northern Europe. Røros is an outstanding example of a Nordic town of wooden construction. The original town structure is completely retained with well-preserved buildings bearing the stamp of the 1700s and 1800s. The town plan is an example of how European concepts of town planning were adopted and adjusted to local conditions and building traditions in this remote mountain town.

Røros is also a well-preserved and exceptional example of the town communities that arose in conjunction with the high activity in ore mining in the 1600s to 1700s in Europe and the new world" of South America. On account of the climate and the location, Røros represents the outer limits of what was possible at that time, and this is reflected in the building tradition.

Røros Mining Town is situated on a south-aligned slope surrounded by hills ascending to treeless mountain plains. The town is framed against this spectacular backdrop with the panorama of the mountains on all sides. After 1679 there have been no more fires, which is unusual for a town of wooden construction such as Røros. It is a completely preserved wooden town, and only the church is a masonry building. The original town structure is preserved with the residential houses with their interior courtyards clustered together along the streets. The building tradition is based on traditional wooden architecture with or without exterior panelling, and the form and details are typical of the region. The large number of well-preserved outbuildings with stables and cowsheds are a rarity and constitute a clear reminder of the miner's dual occupations – mining and farming.

Criterion (v)
(v) be an outstanding example of traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.

Røros Mining Town and the Circumference constitute a totality that is an outstanding example of traditional settlement and land-use. The various activities that have been carried out in the area constitute a cohesive and interdependent unit. These activities have shaped a cultural landscape that provides a unique picture of how the mines and the mining town functioned as a complex and at times vulnerable system that verged on the limits of what was possible in an inhospitable landscape with a harsh climate.

Today these cultural landscapes have been altered to some extent by the closure of mines and by changes to agriculture activities.

The outstanding universal value of Røros Mining Town and the Circumference is closely linked to the natural environment: the mountain plains, the cold climate, the copper ore, a network of lakes and rivers as well as long distances to harbours and large towns. This gave Røros its uniqueness, and formed the background for the development of the cultural landscapes that were linked to Røros Mining Town and the copper works in different ways.

The industrial cultural landscapes are relict landscapes with traces of mining, smelters and other mining operations. They show traces of mining operations on the mountain plains throughout a period of 333 years in an outstanding manner. Since the end of mining operations, there has been no development pressure because the mining areas and the smelter at Femunden are located in mountain areas.

The urban agricultural landscape developed at the same time. The only form of agriculture possible in the cold climate was growing hay as fodder for livestock. The miner's family lived in town and kept their livestock there. Urban agriculture was composed of an intricate system of small plots on the outskirts of Røros Mining Town where grass was grown. The uncultivated land in the vicinity of the town and one or more summer grazing farms were also part of the resource base. In addition, haymaking and gathering reindeer lichen etc. were part of a totality that shows how the inhabitants used all the resources nature had to offer. Since the men worked at the copper works and were often away from home, the women, and sometimes the children, played an important role in these agricultural activities. At Røros the traces of this complex system are preserved almost in their entirety in the cultural landscape. Together they form a well-functioning system which is an outstanding example of a cultural landscape created by the arduous toil of the mining families.

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Other Local Institutions

Rørosmuseet (Røros Museum) Box 224 7374 Røros NORWAY e-mail: museumspost@rorosmuseet.no
Nordøsterdalsmuseet (Nordøsterdal Museum) Museumssenteret Ramsmoen Kongsveien 6 2500 Tynset NORWAY e-mail: mus-rams@online.no

Official Web address

Røros Museum	The website has a comprehensive history of the world heritage site Røros Mining Town and the proposed extension in Norwegian and in English www.verdensarvenroros.no www.worldheritageroros.no
Riksantikvaren Directorate for Cultural Heritage	The website of the Directorate has a description of the present world heritage site in Norwegian and English, and an up to date report on the progress of work with the extension in Norwegian. www.riksantikvaren.no

Contents

Introduction

This dossier contains a proposal for an extension of the Norwegian World Heritage Site Røros Mining Town, entailing a change of the name of the Property to Røros Mining Town and the Circumference.

Røros Mining Town was inscribed on the World Heritage list in 1980. Since then conservation ideology has changed, and this is also reflected in changes in the Operational Guidelines to the World Heritage Convention. Today we want to protect not only monuments and historic towns but also the surrounding landscape in order to place cultural heritage in a broader functional, historic and environmental context. For this reason work on a proposal for a major extension of Røros Mining Town was initiated several years ago. The purpose of the extension is to include cultural landscapes that show why the town was established and how it functioned under the particular geographic and climatic conditions prevailing in the region.

At the time of the inscription the requirements for the nomination document were unclear. The original document, therefore, was very basic and had some shortcomings in relation to today's requirements. It did not contain any specific delimitation of the world heritage area, but in practise, the group of old wooden houses in the town centre has been regarded as the World Heritage Site. This was not formally confirmed until 2006 in connection with the Periodic Reporting. At the same time the name was changed from «Røros» to «Røros Mining Town». Besides lacking a specific delimitation of the Property, the original nomination document did no provide any specification of the criteria. To amend the shortcomings of the original document, this dossier contains documentation and a justification for the inscription of the existing World Heritage Site together with the proposed extension as a whole.

The World Heritage Convention was ratified by Norway in 1977. The very first World Heritage Sites were inscribed on the World Heritage List in 1978, and in the following year the first two Norwegian sites, Bryggen in Bergen and Urnes Stave Church, were inscribed on the List. Then Røros followed as the third Norwegian Site. At present Norway possesses seven World Heritage Sites –five cultural sites, one natural site and one trans-national cultural site.

For the last 30 years or so, conservation work has continued steadily in Røros. The state of conservation of the Mining Town is much improved since the time of the inscription on the World Heritage List. Norway is now prepared to take on new responsibilities for the proposed extended World Heritage Site Røros Mining Town and the Circumference.

MILJØVERNDEPARTEMENTET

Oslo, January 2009
Miljøverndepartementet
Norwegian Ministry of the Environment

1 Identification of the Property

Røros Mining Town was inscribed on the World Heritage List in 1980. Norway hereby submits a proposal for an extension of the world heritage area and the determination of a buffer zone.

With a letter of 12th March 2008 the World Heritage Centre informed the Norwegian Ministry of the Environment that the proposal for the extension had been added to the Tentative List.

1a Country

Norway

1b Region

The nominated extension to the World Heritage Site	The nominated buffer zone
County of Sør-Trøndelag – Røros municipality – Holtålen municipality	County of Sør-Trøndelag – Røros municipality – Holtålen municipality – Midtre Gauldal municipality
County of Hedmark – Engerdal municipality – Os municipality	– County of Hedmark – Engerdal municipality – Os municipality – Tolga municipality – Tynset municipality

1c Name of the Property

Røros Mining Town and the Circumference

1d Geographical coordinates

The Property is a serial nomination and consists of two areas and a transport route:
Town and Cultural Landscapes. North: 6943400. East: 314500
Femundshytta. North: 6913400. East: 336900
Winter Transport Route. North: 6917700. East: 322900
Coordinate System: WGS_1984_UTM_Zone_33N

1e Maps

Cf. Annex 1: 11 maps

- The Property in Europe
- Administrative borders

- The World Heritage Sites and the Buffer Zone
- The Town and Cultural Landscapes – Proposed extension
- The Winter Transport Route and the Femundshytta Smelter – Proposed extension
- The present World Heritage Site
- Bedrock map
- Mines and smelters
- Protected Sites according to the Cultural Heritage Act
- Protected areas according to the Nature Conservation Act
- Areas in the Buffer Zone particularly influenced by Røros Copper Works

1f Area of the Property and proposed buffer zone

The present World Heritage Site, Røros Mining Town: 51,4 ha

The proposed extension:

Town and Cultural Landscapes including the present World Heritage Site	14 000 ha
Femundshytta	950 ha
Winter Transport Route	1 560 ha
Buffer Zone	481 240 ha
Total	497 750 ha

Description of the boundaries

The three above-mentioned areas are located in the Circumference, i.e. the area of privileges awarded by the Danish-Norwegian King to Røros Copper Works in 1646. The circular area of privileges has a radius of 45.2 kilometres, with its centre at the first workable mine, «Old Storwartz».

Town and Cultural Landscapes

These cover a large continuous area that includes the entire sweep of landscape surrounding the previously inscribed mining town as well as the urban agriculture and the most important mining landscapes, Storwartz and the Nordgruvefeltet field.

Femundshytta

This includes the industrial cultural landscape with traces of a smelter and the community that grew up around it.

Winter Transport Route

The nominated part of the winter transport route starts at the outer limit of the Circumference in Tufsingdal and continues over Lake Korssjøen to Røros.

Buffer Zone

The outer limit of the Buffer Zone follows the rim of the Circumference, with the exception of the areas that are located in Tydal municipality and on the other side of the border with Sweden.

2 Description

In the preparations for the extension, the boundary of the investigated area has been determined as the Circumference of Røros Copper Works, i.e. the area of privileges granted to Røros Copper Works by the Danish-Norwegian King Christian IV at its start-up in 1646. The area forms a circle with a 45.2 km radius with the first workable mine, Old Storwartz, at its centre. At the time, it was common that the King granted areas of privilege in the form of a circumference for all types of mining enterprises. Traces left by the mining activities and by other industries required to sustain the mining communities are found throughout the Circumference. The activities of the copper works gradually extended to areas far beyond the Circumference, but the cultural heritage sites and cultural landscapes found inside this boundary provide a sufficiently representative impression of these.

The Property «Røros Mining Town and the Circumference» comprises three areas: The Town and Cultural Landscapes, the Femundshytta smelter and the Winter Transport Route. The two last-mentioned areas represent particular characteristics of the mining activities at Røros, and contribute to the Outstanding Universal Value of the Property. However, we cannot fully understand how the mining town functioned without considering the area of privileges, the Circumference. The Circumference is proposed as a buffer zone. The buffer zone thereby has a value in addition to protecting the Property visually. It is a key instrument for understanding the Property, and places it in a wider historical and functional context. This is in accordance with the role of a buffer zone as described in the Operational Guidelines: *«areas or attributes that are functionally important as a support to the property and its protection»* (Operational Guidelines for the Implementation of the World Heritage Convention, Section 104). The proposal for an extension of the world heritage site Røros Mining Town and the delimitation of a buffer zone shows the value of the Property in an overall context.

2a Description of the Property

Natural resources, climate and landscape in the Circumference

The establishment of Røros Mining Town was based on the discovery of copper ore in 1644. The specific operating practices and the culture that developed were closely associated with the existing natural features – the mountain plains, the cold climate and the remote location with no passable roads for most of the year. These factors came to characterize all activities in the region.

The primary resources of the copper works were ore, forests, water power and human labour and skills. The population's need for food could not be covered locally, but had to be met through a combination of local agriculture, mainly hay production for animal husbandry, and import of grain and other required products. All available resources in the area were put to use, and the total pressure on the natural resources inside the Circumference was consequently high. The landscape was altered completely over a short period of time due to exploitation for pasture and haymaking, felling of timber and wood for the mining activities, production of charcoal in the forests, regulation of the waterways for transport and power supply, rock piles outside the mines and sulphuric fumes from the smelters.

Parts of the natural environment in the area are still characterized by this intense exploitation of resources. «The polluted landscape» close to the abandoned mines and smelters is currently part of the proposal for an extension of the World Heritage Site.

Climate

The Røros region has a typical inland climate with little precipitation and cold winters. With its location far north and more than 600 metres above sea level, the summers are generally short and cool.

Average annual temperature (1961-1990) is just above 0 degrees C.

January is the coldest month, with an average temperature of –11.4 degrees C. The warmest month is July, with an average temperature of +11.5 degrees C. However, there are large variations within these averages. During the period from 1959 to 1989, the lowest temperature recorded in January was –45.8 degrees C and the highest was +10.4 degrees C. In the same period, the highest temperature recorded in July was +28.6 degrees C, while the lowest was -2 degrees C. It is not uncommon to have night frost during summer. The lowest temperature ever recorded dates from 13 January 1914, with –50 degrees C. All measurements were taken in Røros Mining Town.

We know that temperatures were lower from the 1300s until the end of the 19th century than what could be observed during the 20th century and up to the present time, and the period is referred to as «the little ice age». During this period all transport of importance took place in winter, on sledges pulled by horses and bullocks across frozen rivers and lakes, and over the mountains. This activity was not without its hazards, and transport in frosty and cold weather is a key element in the literature, narratives and myths about life at Røros.

Temperature is decisive for the growing of crops. In the Røros district, summer was too short and the temperature too low to allow crops to ripen. The only crop that could be cultivated in some volume was hay, and agriculture therefore mainly comprised animal husbandry and the production of hay to be used as fodder. This is still the main form of agriculture in the region.

Rock geology

In terms of rock geology, the Circumference is divided into two main parts. The northern and western parts belong to the Trondheim Cover, which forms part of the Caledonian Range. In general, this part consists of calcite-rich phyllite, mica schist, slate and gneiss. The mining activities in the Circumference were mainly associated with this area. The Trondheim Cover has played a key role with regard to mining in Norway also beyond the Circumference, with copper mines established at Kvikne in 1632, Løkken in 1654, Selbu in 1717 and Folldal in 1748 as well as at other places. This type of rock gives rise to fertile soils and a varied and rich flora.

Close to the border with Sweden lie a number of mountains composed of granite. To the south and east, the rock is mostly composed of arkose and feldspar-rich quartzite, giving rise to poor soils and vegetation with few species. The large stretches of low-growing pine around Lake Femunden grow on this type of rock.

Quarternary geology

Some 9000 years ago, most of the inland ice from the last ice age, the Weichsel, had melted. Moraine material deposited by the glaciers forms the main type of deposit inside the entire Circumference, and is found as high up as the highest peaks. The Røros district contains many traces from the melting of the last ice-age ice cover. This has resulted in distinctive landscape forms, such as long ridges, eskers, formed by the sediments left by glacial rivers, and dead-ice hollows formed by ice trapped under a cover of deposits after the disappearance of the glaciers themselves. Today, these appear as lakes or hollows in the landscape. Kvitsanden («white sands»), one of the characteristic features of the landscape in Røros Mining Town, has been formed by well-sorted material from glacial rivers subsequently exposed to wind erosion. Today this has the appearance of white «sand dunes».

In the eastern parts of the Circumference, in the forests around Lake Femunden and in the Rogen district on the Swedish side of the border, we find a special type of variable moraine ridges that are transverse to the flow of the ice, known as the Rogen moraines.

In terms of quarternary geology, the areas inside the Circumference are of major importance for our understanding of the development of the ice age in Europe and in Scandinavia.

Watercourses
Inside the Circumference we can find the sources of two of Scandinavia's largest watercourses: Lake Aursunden with the Glomma river and Lake Femunden with the Trysil/Klara and Gøta rivers. Lake Femunden is Norway's third largest lake, and the largest unregulated one. Lake Femunden is considered to be unregulated in spite of the regulation undertaken by the copper works in the 18th century. In addition, the entire Circumference is criss-crossed by large and small rivers and lakes.

Forests
At the time when the copper works was established, fairly sparse pine forests grew over large parts of the Circumference. After a short period (approximately 50 years) the forests around Røros had been depleted. Pollution from the mines and smelters in combination with grazing by domestic animals and the cold climate prevented the forests from growing back, and Røros Mining Town was left in a deforested landscape.

Today, the landscape is undergoing another process of change. A milder climate, no more pollution from mines and smelters and fewer grazing animals have provided favourable conditions for a re-establishment of the forests. The regeneration of birch is evident around Røros and in large parts of the Circumference. To the north there are also some spruce forests, while sparse pine forests have been established east of the Glomma river and around Lake Femunden.

Fauna
In the north-western part of the Circumference lies Forollhogna National Park, which was established with a view to preserving the habitat of the large population of wild reindeer living in the area. Norway is home to the only remaining wild reindeer populations in Europe. In the south-eastern part of the Circumference lies Femundsmarka National Park, where we can find threatened species like bears, wolverines and lynxes, as well as golden eagles, ospreys and great horned owls.

The Property

This section describes the Property as it appears today. The existing urban environment and cultural landscapes represent physical traces of a long history. This description should therefore be seen in conjunction with the next chapter, *2b History*, which provides a chronological description of the development and a closer explanation of the features that are visible in the landscape at the present time.

The Property comprises three areas. An extension of the existing world heritage site Røros Mining Town is proposed to include agrarian and industrial cultural landscapes in one large combined area (the Town and Cultural Landscapes). The two areas added – the Femundshytta smelter and the Winter Transport Route – represent functions that were particularly characteristic of the mining activities at Røros.

As the forest resources around the mining town were gradually exhausted, new smelters were established in areas where the availability of timber was better. When these resources were also depleted, the smelter was moved again. The smelters therefore came to be located further and further from Røros town and the mines. The Femundshytta smelting house as an industrial cultural landscape typifies these remote smelters. The mining activities and the mining communities generated an enormous need for transport. Until construction of the railway, most of the transport was undertaken during the winter season, and many winter transport routes can therefore be found within the Circumference. The Winter Transport Route from Tufsingdal valley to Røros has been selected to exemplify these.

The Femundshytta smelter and the Winter Transport Route have been selected to represent activities of which other examples can be found within the Circumference. These have been selected because they are found in settings that are relatively untouched by recent technical encroachments, and thereby have preserved a large degree of integrity.

The Town and Cultural Landscapes

The world heritage site comprises the entire sweep of landscape in which Røros Mining Town is situated, in addition to a continuous area comprising the main mining fields, the Storwartz and Nordgruvefeltet fields. Inside this area we find the old mining town, the industrial cultural landscape of the mines, the cultural landscape of the urban agriculture with small land plots, the outlying fields in the vicinity of the town with the summer grazing farms, as well as a number of farms, roads, the railway and a power station.

The landscape

The landscape is dominated by traces from the ice age. Røros Mining Town is located on deposits from glacial rivers. The hillsides consist of moraine material, and the lakes and tarns have been formed by the movement of the glacier. The area is crossed by a system of ridges. The upper part of Norway's longest river, the Glomma, runs through the area. In addition, the regulated watercourses, including the Hitterelva and Håelva rivers, constitute important tributaries to the Glomma river.

Røros Mining Town

Røros Mining Town is located at approximately 600 to 700 metres above sea level, surrounded by deforested mountain plains that form the visible periphery of the town's landscape. The landscape is formed as a bowl-shaped oval with a flat bottom. The old mining town is located on a slope facing south along the Hitterelva river. The town was established in the mid-17th century in association with the oldest smelting house, which was erected on the western side of the waterfall in the Hitterelva river. In 1678 and again in 1679, the town was torched by Swedish troops. It was soon rebuilt, and there have been no fires in the town since.

The houses in the old mining town are situated east of the Åsengården farm, which is one of the few farms that were found in the area prior to the establishment of the copper works. The farm is still located as an independent unit with plots of land inside the area of the current Røros town centre.

Røros Mining Town is a planned town. It was established around the smelter, with two parallel main street that follow the course of the river. Small alleys connect the main streets. The Bergmannsgata street widens in its lower part and narrows further up the slope to create a «false» perspective. The oldest director's residence acted as a focal point at the lower end of the street. At the top of Kjerkgata street, the church originally served as a focal point, but the new church which was constructed in 1784 was moved further west, and the street was continued directly through the former cemetery. The town plan is shown on a planning draft from 1658, and in more detail on a map of the town from 1711, in which the «false» perspective clearly emerges to indicate a connection with Central European town planning of the Baroque period.

Some years later, the town also developed on the other side of the river, at Flanderborg, with a less restricted and more organic structure. With the exception of the location of the church, the original town plan as pictured on a map of the town from 1711 has been preserved.

The Malmplassen square with the smelting house formed the core of the town, and it still functions as a centre of activity and as a meeting-place. The town has no other market square or central square apart from this. On one side of the Malmplassen square we find the large white church, called «Bergstadens Ziir» («Pride of the Mining Town») and on the other the stark, black slagheaps. Together they dominate the townscape.

The Smelting House and the Malmplassen square

Even though Røros Mining Town has escaped conflagrations since 1679, the smelting house has burned on several occasions. The last smelting house from 1888 burned down in 1953, and this fire caused Røros Copper Works to stop smelting ore after more than 300 years of continuous operation. The remains of the smelting house burned again in 1975. Today, the smelting house has been reconstructed as a museum. In the foundations of the museum we can find the walls of several generations of smelting houses, with cultural layers several metres deep. In association with the smelting house we find the machinery shed, with an intact cylinder air compressor from 1887.

The Slagheaps

Slag from the smelting house was transported on horse-drawn carts across the Sleggbrua bridge and deposited on the other side of the river. Gradually, the slagheaps grew into major features of the landscape. Towards the end of the 19th century a separate train line for slag transport was constructed, and the slagheaps acquired their present shape. The slag was waste, and was used as filling material when the need arose. Large amounts were removed from the eastern part of the slagheaps for use in the construction of roads, railways and the airport. From the town side, the slagheaps appear almost as they did during the time when the copper works were in operation.

The Church

The first church at Røros was consecrated in the 1650s. Following a long period of prosperity in the second part of the 18th century, the director of the copper works, Peder Hiort, decided to build a new church. The church became an impressive edifice, with lime-washed masonry walls in late-Baroque style. The church has approximately 1600 seats. Its location at the top of the street, its high bell tower and its white colour make it visible from the entire town area, contrasting sharply with the black slag heaps and the low wooden houses. At the end of the 18th century the contrast was even more marked, as most of the timbered houses had dark, unpainted walls.

The church has an octangular floor plan. The pulpit is suspended over the altar, and the organ from the original church has been placed above it, which is a rarity in the Norwegian context. The church has two storeys of galleries. Over the entrance we find the royal gallery, flanked by the curtained galleries of the management of the copper works. The church is well preserved, including the interior paintwork. The architecture of the church influenced the construction of churches in the nearby regions.

The Town Houses

The built-up area of the mining town has changed gradually over time, but the structure of the properties has changed only little. Some buildings have received extensions and an added floor. At the outset, the houses were timbered and without any panelling, but during the 19th and 20th centuries most residential houses received an exterior cladding. In reality, the town houses are closely clustered farming properties, where the main building faces the street. A gate leads into the courtyard where we find all the outbuildings required for animal husbandry. It was common for all social classes, from the miners to the managers of the copper works, to undertake agriculture in addition to the work for the company. Their farming properties are found side by side along the streets. The largest buildings are found in the Bergmannsgata street, but even here we can find properties belonging to ordinary miners' families. At Røros we can find no workers' quarters or clearly delineated workers' districts, as is common in other large mining environments.

«Catharina Borchgrevink's house» – mansion of the bourgeoisie.

This site is found in the wider of the two main streets, the Bergmannsgata street. The house was built by Miss Catharina Borchgrevink in the 1790s. Like all the other buildings, the longest façade of the two-storey residential house faces the street, with a gate leading into the southern part of the courtyard. The building is a cog-jointed log construction with a vertical exterior panelling, and is adorned with Louis XVI-type architectural details that clearly demonstrate its connection with the buildings of the upper bourgeoisie in

Trondheim. The courtyard has a cowshed, stables and all other types of essential outbuildings. When Miss Catharina Borchgrevink died, unmarried, in 1804, she was one of the richest inhabitants of Røros. She left several properties and three horses, seventeen cows, two draught bullocks and two sheep. In addition, she owned reindeer that were included in the herds of two Sámi. After her death, the house was used as the director's residence until 1939, when it was purchased by Røros municipality and taken into use as the town hall.

«Rasmusgården» – a miner's house

This site is located far down in Bergmannsgata street, at its widest point. The buildings on this property have many features that are characteristic of Røros. The residential house is a cog-jointed log construction with vertical exterior panelling towards the street, and bare timber walls facing the courtyard. The house has one room, an outer passage with stairs leading up to the first floor, and a gateway leading to the courtyard. At an angle to the courtyard a kitchen with an open hearth has been added. The courtyard has a cowshed and a stable for the miner's own use, as well as a livery stable with places for ten horses. Many of the properties in the mining town accepted lodgers and had separate stables for travellers. The Rasmusgården house is currently owned by the nationwide Society for the Preservation of Norwegian Ancient Monuments, which rents it to its members as overnight accommodation.

The Flanderborg District

The Flanderborg district, located across the Hitterelva river, was part of the first extension of the town. This district has a more unplanned character than the old town centre. A characteristic feature is that the houses turn their «backs» to the river, because of the cold and the pollution. The same feature is observed on the other side of the river. The façades facing the river thereby clearly stand out in the town environment as the rear of the buildings.

Above Flanderborg we find Sleggveien road, leading directly to the slagheaps. To some extent slag from the slagheaps slides down towards the rear of the houses. Here, we find no cowsheds or stables for animals. The small cottages were occupied by those who were badly off, such as day labourers, craftsmen, widows or unmarried women.

The «Tyristuggu» house – living quarters for the landless.

This house is the second house from the top of Sleggveien road. The slagheaps tower up behind the house, and slag keeps sliding down towards its rear wall. The house was first inhabited by a cobbler's family and later by a spinster, Miss Tyri Jensdatter Myren, until her death in 1937. The house originally dates from the end of the 18th century, and was moved to its present location in Sleggveien road before the mid-19th century. It has a tiny dwelling room in joined timber, with an outer passage and a small kitchen with an open hearth. A small woodshed has been added on the northern gable wall. The building is currently owned by Røros Historical Society and is run by the Røros Museum.

At the bottom of the bowl-shaped landscape of Røros Mining Town, the districts of Stormoen and Øra grew up as suburbs of the town. The Stormoen district has kept its own identity until our times, but gradually became a suburb of Røros Mining Town. The Øra district was the least attractive and the last to be developed. Here, new farms were established as late as 1935.

Urban development in the 20th century

The town developed slowly until World War II. In 1944, a new national road was built and a new railway line was added in a loop towards the town. New buildings grew up on the small plots and along the access roads. During the 1960s, people started to move out of the town centre and into newly established residential areas on the outskirts of the town. These areas continue the tradition of wood construction, and have been placed in the terrain in a manner which does not detract from the impact of the old town in the landscape but acts as a natural continuation of the old town.

The extension of the railway to Røros in 1877 spurred the establishment of industries that were unrelated to the copper works, and this trend continued as the activities of the copper works diminished. Røros is still a living town, with manufacturing as a main industry. Inside the proposed World Heritage Site, at the bottom of the bowl-shaped landscape, we find commercial and industrial areas, as well as an airport that was opened in 1957.

The cultural landscape of urban agriculture

The urban agriculture is described in section *2b History*. It comprises the production of hay for animal fodder, grazing on summer pastures and the gathering of wild grass and moss. Almost all employees of Røros Copper Works kept domestic animals in the courtyards inside the town, and the town centre was surrounded on all sides by a green belt of small plots of land. Much of this has been preserved. In 1836, these plots were entered into the land register and divided into six main areas. East of the town centre are the districts Småsetran, Østerhaga and Djupdalshaga, while the Stormohaga and Kvitsandshaga districts are located west of the town, with Kjerkgårdshaga to the north. At the end of the 19th century a total of 700 such plots had been cleared, surrounding the town on all sides. Parts of these have in recent years been used for the purpose of town development, and some of the hay sheds have been demolished. The outer edges of the areas are partly overgrown, but on the east and west sides of the town we find areas where the plots of land have been preserved and the hay sheds dominate the open landscape.

The Småsetran district, northeast of the town centre, was initially an area with small plots of land linked to the urban agriculture, and summer grazing farms were gradually established. The plots are separated by stone walls and ditches marking their boundaries. Both old summer grazing farms and plots with hay sheds have been preserved in this area. Several buildings bear traces of extensive reuse of materials, and thereby serve to show how all resources were exploited to the maximum extent. The area is maintained through annual mowing to prevent overgrowth.

The Østerhaga and Djupdalshaga districts, east of the town centre, border on the Småsetran district in the north. In combination, these constitute an unbroken belt of cultivated land on the east side of the town. The clear subdivision into plots has mostly disappeared, but many hay sheds remain. The area is still used for the production of hay, and is cultivated using modern methods. This serves to maintain this area as open land and prevent overgrowth. In recent years some of the plots have been built on, with a modern healthcare institution as one example. Although the impression of green fields leading into the dense town and the slagheaps is therefore somewhat weakened at this spot, the main features have been preserved.

The Stormohaga and Kvitsandshaga districts on the west side of town have retained large areas of plots and hay sheds. The delimitation of the small plots with ditches as boundary markings has been somewhat weakened, and the unity of the landscape has been broken by a road, the railway and some development. However, the area still demonstrates how the urban agriculture functioned.

The Kjerkgårdshaga district to the north of the town stretches along the Hittersjøen lake. The area is largely overgrown with birch shrub and thickets. A number of summer grazing farms were established in this area, and in the 20th century a few holiday cabins were built. Because of overgrowth and some recently added houses this district does not form a very distinct element in the townscape.

The summer grazing farms of miners and town citizens

As part of the urban agriculture, the people of Røros had often cleared summer pastures further afield. Several of these areas are found inside the World Heritage Site. Stikkjilen to the northeast of Røros is a group of summer grazing farms used by ordinary miners' families for animal husbandry in the summer season. The Rasmusgården house in the mining town, with the Rasmusvollen grazing farm in Stikkjildalen, exemplify this.

The upper bourgeoisie and the «participants» of the copper works kept summer grazing farms in the same manner as the miners' families. These were often built in the form of summer residences, with gardens, pavilions and even skittle alleys and tennis courts. Several of these summer residences are found inside the nominated world heritage area.

Other agricultural landscapes

Besides the miner/farmers in the town there were many «full- time» farmers in the Røros area. Today there are 21 active farms within the Property and a number of redundant farms. However, the fields of the redundant farms are cultivated by the active farmers within the Property as well as by 15-20 farmers from the Buffer Zone. The mowing of these fields within the Property contribute to the preservation of the cultural landscape. This is a «continuous landscape» that will follow the general development within agriculture in Norway. The Outstanding Universal Value of the world heritage site will not be affected by such general development, and the State Party does not find it necessary to give further legal protection to these cultural landscapes. (Cf. 5b Protective designation, ANR-areas).

The mines

The Storwartz Field

The Storwartz area is located approximately ten kilometres northeast of Røros town centre. The area lies 800 metres above sea level in a deforested mountain landscape. The entire area appears as an industrial cultural landscape with many layers of historic remains from more than 300 years of mining activities. The area shows good examples of mining activities from all stages of the history of Røros Copper Works. An almost unbroken 2.6 kilometre long belt of mines stretches from the Upper Storwartz mine in the west to the Olavsgruva mine in the east. Scattered around in the area we find mine shafts, rock piles, remains of aqueducts, dams, footpaths and cart tracks between the mines and Røros, power transmission lines, cableways and mine openings, and some walled enclosures for the horses. There are also a number of preserved buildings and technical installations to be found in the area, as well as the Olavsgruva mine, which is open to visitors.

Old Storwartz

Immediately south of the buildings at Upper Storwartz we find the oldest mine, which was also the site of the first claim established in 1645. This mine is at the centre of the Circumference, the area of privileges granted by the King in 1646. The area contains many old mine shafts, most of which have been filled in.

Upper Storwartz

Clearly visible on high ground we find the housing complex at Upper Storwartz. The deposit was discovered in 1708, and was considered to be promising. The houses there comprise six buildings and several remains of buildings, most of which are considered to date from the early part of the 19th century. A number of them, like the main stables, the cowshed and parts of a wheelmaker's cottage, are constructed in stone with clay mortar. Next to these buildings we find the extensive ruins of the «Great Barracks» that measured 14 x 52 metres and was built in 1803, also in stone. The barracks could provide shelter for up to 300 men. The building burned down in 1939.

In the terrain between Upper and Lower Storwartz there are numerous remains of mining shafts from the 18th century, as well as traces of aqueducts and dams. All available water had to be used to supply power for hoists and pumps, and even the marshes were drained to provide more water. The water was led onto waterwheels near the mining shafts, and the power was transmitted with the aid of power transmission rods. No waterwheels have been preserved in this area, but some traces remain in the form of troughs dug out in the riverbeds. Wherever waterwheels could not be used, horses provided the driving power for pumps and hoists, and several traces of horse-driven mechanisms can be found.

Walled enclosures

At Storwartz, there are also traces of walled enclosures. In areas with tillable soil, plots of land were cleared for the horses that were used in the mines. These plots were enclosed with stone walls, and were used as pasture as well as for hay production. Several of these enclosures have been preserved, some of which also comprise stables and houses.

Lower Storwartz

Lower Storwartz was in operation from the early 18th century onwards. For a long period it was the copper works' main mine. Today, nine buildings are left at Lower Storwartz, of which five date from the 19th century. In 1926 a flotation plant was established there. This plant burned down in 1946, but a new, modern flotation plant was built within a year, and it remained in use until 1972. The complex comprises several buildings which have been preserved complete with an entire cableway station and a silo, a grinding house, a sifting house, a bridge, a further silo, a flotation plant, a storehouse and a building for shipment of ore concentrate. The ore from the Olavsgruva mine in the eastern part of the Storwartz area was transported by cableway to the flotation plant at Lower Storwartz. The machinery was originally located at the Muggruva mine, where it was erected in 1899 as part of the country's first electric cableway. The machinery was moved to Storwartz in 1941. The cableway has been restored, and is currently operable in its entire length of 1400 metres.

From Lower Storwartz a further cableway, built in 1903, led to the smelter in Røros town. Today, this cableway has been dismantled, but the scorch marks in the terrain and some pylons clearly indicate its path.

The introduction of the flotation technique allowed for exploitation of the copper left in the old rock piles in the area. During the final years of mining operations, the rock masses were therefore considerably disturbed and large sections of the old cultural landscape changed.

The Olavsgruva mine

The Olavsgruva mine is located at the eastern end of the Storwartz area. The mine, which was in operation from 1937 to 1972, was opened as a demonstration mine for visitors in 1976, and in 1981 a museum building erected over the mine entrance was opened. In the present demonstration mine, visitors first enter through the Nyberget – or Neu-Berg – mine, which was opened in 1650 and remained in operation until 1713. This part shows the fire-setting techniques of the 17th century. Visitors then continue for another 500 metres into the Olavsgruva mine. Here, ore was broken with the aid of pneumatic drills and blasting with dynamite. Some technical equipment, such as electrically driven scrapers and a locomotive with a set of carriages, as well as a mine lift up to the surface have been preserved. Thus on the same tour visitors can be shown the old techniques as well as the mechanical mining operations of the 20th century. Outside the mine is a cableway station with a silo, and nearby there are a number of other buildings that stem from the final phase of operations.

The Nordgruvefeltet field

In this area we find several mines, the most important of which is the Arvedalsbruddet mine, which later was joined to the King's Mine, as well as the Christianus Sextus mine and the Muggruva mine in the northern part of the area. In addition to these, we find a number of other mines, including the last mine to be operated by Røros Copper Works, the Lergruvbakken mine. Today, this area bears traces of the 300 years of mining operations. However, the oldest traces have been disturbed, because during the final years of the copper works' operations, methods were developed to enable profitable exploitation of ores that previously were considered to be too low-grade. Following the bankruptcy of the copper works in 1977, some clean-up measures and other efforts were undertaken to limit/prevent polluted run-off from the area.

The Arvedalsbruddet mine and the King's Mine

The first mine at Arvedal was established in 1657. Operations at the King's Mine started in 1736, and in 1886 a breakthrough between the two mines was opened. The King's Mine was the first among the copper works' mines to be equipped with a waterwheel and power transmission rods to drive the drainage pumps and hoist ore out of the mine (1769). The other mines at Røros were so shallow that mechanical devices previously had been considered unnecessary. Following more than 70 years of operations based on water power, a steam engine was purchased in 1841.

The high content of sulphur in the ore from the Arvedalbruddet mine and the King's Mine caused problems for smelting. However, towards the end of the 19th century a market developed for iron pyrite (FeS_2). At the same time transport was made easier following the construction of a sidetrack to the main railroad (the Arvedalslina railroad) in 1886, and this facilitated the delivery of iron pyrite. A telephone line was installed along the railroad barely ten years after the invention of the telephone. The introduction of electric power (1897) allowed for the construction of a cableway from the King's Mine through the Christianus Sextus mine to Harborg railway station, and the Arvedalslina sidetrack was subsequently dismantled in 1910.

The activities related to the exploitation of iron pyrite were sufficiently large to establish a family community at the King's Mine, including a school, a shop and a post office.

Today, few traces are left from the golden age at the end of the 19th century. All buildings have been demolished or have burned, with the exception of the flotation plant. The tailing ponds and the entire old production site, including the loading ramps, railroad and cableway station have been covered by new masses. However, some traces of the activities still remain in the landscape in the form of dams, foundations, shafts, ore transport roads etc.

The Christianus Sextus mine

The Christianus Sextus mine was established in 1723 and remained in operation for forty years until 1763. When the mining of iron pyrite at the King's Mine commenced in the 1880s a survey was also conducted at the Sextus mine, and new operations were started. The mine was supplied with electricity and connected in 1909 to the King's Mine with a cableway which was extended down to the Røros railroad the next year. At the peak of operations sixty men were working in the mine, which remained in operation until spring 1940.

Today, the cableway station is left as a fragile, but remarkably enduring ruin. The building stands on highly polluted ground. The stable, with stalls for eleven horses, has been preserved and has recently been restored. In addition we find the foundations of other buildings from the first period of operations as well as from the most recent, traces of the trolley line used to transport the ore to the silos next to the cableway and rock piles left from 200 years of mining operations.

The Muggruva mine

Operations in the Muggruva mine started in 1770. The ore was low in iron pyrite, and the copper pyrite was very pure. The ore lode was relatively large, and ran almost horizontally. At first, water could therefore be left to run out by itself, or be transported out through the main gallery. As the length of the gallery increased, the lode sloped downwards, and water became a problem. Horse-driven pumps were constructed, followed by a waterwheel in 1823. The wheel had a diameter of ten metres, and power was transmitted with the aid of a simple set of rods. Several dams were dug out to provide sufficient water for the waterwheel and for washing out the ore.

In 1899 the mine was supplied with electricity, and Norway's first electric cableway was constructed down to Tyvoll station on the Røros railroad. At that time, the innermost part of the mine was located 1200

metres from the gallery opening. The horses that had been used in the mine were replaced by an electric locomotive to transport the ore. In 1904, the train was in turn replaced by a cable-driven conveyor.

The mine was closed in 1919. After the closure, the buildings were demolished or moved. The cableway machinery was moved to Storwartz in 1941. Today, the only building left on the site is the forge. The axle and parts of the waterwheel are left inside the mineshaft, and these are the only preserved remains of waterwheels used by the copper works. In addition, we can find a number of ruins and foundations of houses. The rock piles have remained untouched since the closure of the mine. Even though most buildings and constructions have disappeared, the traces of the activities in the area are more prominent and readable than in similar sites near the other mines.

Kuråsfossen power station
Together with the railroad, the introduction of electricity represented a major turning point in the modernization of Røros Copper Works. In the 1890s copper prices were low, and the company searched for methods for more economical operations. It was estimated that the construction of one power station could save the work of 191 men and 58 horses.

The power station was built at Kuråsfossen at the outlet of Lake Aursunden and was completed in 1896, with power transmission lines to the King's Mine, the Muggruva mine and the Storwartz mines. A dam was built in the Glomma river directly below the outlet of Lake Aursunden. From the dam, water was diverted in a 190-metre long wooden aqueduct to the distribution pool, and further through 30-metre long iron pipelines to the power station. The station was equipped with two Swedish-made turbines and two German-made generators. Power was transferred by high-voltage lines with a total length of 24 kilometres. In 1931 the power station was expanded, and in 1952 a new station was constructed inside the mountain itself. The old power station fell into disuse as late as 1965.

Today, the power station looks small and inconspicuous, but during a short period following its construction it was a major and technically advanced installation, not only in the Norwegian context, but also in Scandinavia and Europe. The power station «Kuråsfossen 1» was the first in Norway to have high-voltage transmission lines.

The original power station, including most of its technical equipment, has been preserved. The building, the turbines and the generators were restored in 1982, and a small exhibition has been established in the newest part.

Femundshytta

Industrial cultural landscape
After 50 years of smelting activities at Røros most of the timber around the town had been consumed. The continuous emission of sulphur dioxide from the smelter combined with heavy grazing prevented regeneration, and the area thus remained treeless. The smelter was still in operation, and firewood and charcoal were transported to Røros, but gradually it became clear that it was also profitable to establish new smelters in densely forested areas. The ore was then transported to the new smelters and small communities grew up around these. Altogether twelve smelters associated with Røros copper works have been registered, although they were not all in use at the same time. They were in operation as long as resources were available, but as these resources were depleted, the distance between the mines and the smelters steadily increased. Finally several of the smelters were located outside the Circumference. The remoteness of the smelters and the long distance between the mines and smelters constitute one of the main characteristics of mining operations at Røros. Femundshytta has been chosen to exemplify these smelters.

Lake Femunden lies 662 metres above sea level and is Norway's third largest lake with a length of 62 kilometres. Most of the area consists of bare mountainside above the tree line with scanty pine forests along the waterways and around the lake. The area was uninhabited when the smelter was built and it is also sparsely populated today.

The Femundshytta smelter was located on the west side of the lake. The area comprises the industrial cultural landscape with the ruins of the smelter and the settlements established there. The smelter was in use between 1743 and 1822 and produced black copper. The next stage in the process – refining – was carried out in the smelter at Røros (cf. 2b History).

The ore was transported from the mines in the Nordgruvefeltet field and the Storwartz mine by sledge on the winter snow to Nordvika, and then by barge over Lake Femunden in the summer. Transport by barge was considered to be so unsafe that the valuable copper was returned to Røros overland or on the winter snow.

When the forests were depleted, the copper works established a new smelter at Drevsjø even further away from the mines and outside the Circumference. The people who moved on either settled at Drevsjø or cleared land for farms in other places around Femunden, in areas that had earlier been used as summer grazing farms. Buildings made of cog-jointed logs are easy to move, and the houses were transported to the new site.

Today one farm is still situated at Femundshytta. The area had no road connection from the start of the operations right up to the 1990s. Most of the buildings from the settlement around the smelter have disappeared but the ruins and sites in the area bear witness to the activities of bygone days. Here we find slag heaps, the foundations of two furnaces, a trough for the water wheel, a turning chamber with several bins and a jetty for transporting the ore. Along the Butjønnbekken stream the remains of several dams can be seen. Moreover, the ruins of houses mark the sites of the farms of the smelter workers.

An unusual historic relic is the so-called «play town». The children at Femundshytta built a small miniature town of stone slabs. The town has a large church and a long street – rather similar to Røros. It is uncertain when it was built but it indicates that Røros had a position of some importance in the awareness of the youngsters. This is the only clear trace of the presence of children in the mining community.

The Winter Transport Route

The Winter Transport Route from Tufsingdal to Røros

Mining operations and the mining communities created an enormous need for transport (Cf. 2b History). Everything had to be transported over long distances, and for a considerable period of time there were no roads. Up to the 1880s most of the transport took place using horses or bullocks, and sledges in the wintertime. Frozen rivers and lakes were used as long as this was possible but often mountain passes had to be crossed between the waterways. The main transport routes followed the rivers along the valleys leading to Røros from the south and from Røros towards Trondheim in the north. In the course of time, roads were built through these valleys, as well as the railway. However, there were also a number of winter transport routes that linked the mines and smelters in the Circumference. There are few physical traces of this all-important winter transport, but the winter routes are shown by the large farms that provided stables and overnight accommodation for travellers along the routes. The Winter Transport Route from Tufsingsdal valley over Holla and Lake Korssjøen to Røros represents this form of transport. It has been chosen because it traverses a natural landscape that is almost untouched and that therefore provides a clear picture of what it was like to take part in transport for the copper works.

This route was primarily used to transport goods to Røros. The farmers along the route transported charcoal and other timber to the mining town, starting around the New Year when the ice on the lakes was thick and there was enough snow. The route was not cleared of snow but it was marked, and routes over the lakes were marked with branches. Lake Femunden was often particularly difficult to cross because of surface water on top of the ice. Parts of the route are located 900 metres over sea level, and with temperatures down to minus 40 degrees Celsius it is clear that the trips could often be very strenuous. The farmers also travelled together so that they could help each other when difficulties arose. The route continued on to Sweden and was used to transport goods from Härjedalen, from the northern part of Dalarne and from Falun in the south (a Swedish World Heritage Site with copper mines). Iron, gunpowder and ordinary trading goods were imported from Sweden. On the return journey the Swedes took goods from Norway with them, for example herring and stockfish as well as sheepskin and reindeer products. Holla and Korssjøgårdene are farms which provided stables and overnight accommodation for travellers on their way to Røros.

Røros Copper Works had a monopoly on all trade up to the beginning of the 1800s, but markets for trading between farmers had existed prior to this. The Røros Fair was officially established in 1854 and still takes place every year starting on the second last Tuesday of February. The tradition of transporting goods from Sweden has been revived, and every year a large group of drivers with horse and sledge follow the same winter transport route to get to the fair. In 2003 a group of people made the long journey all the way from Falun (Cf. photographs in Annex 2).

The Buffer Zone

Røros Mining Town and Cultural Landscapes, Femundshytta and the Winter Transport Route are all situated in the Circumference. They comprise historic environments and cultural landscapes that show how the mining town came into existence and how it developed and functioned. However, the mining town cannot be fully portrayed without the rest of the Circumference. Norway therefore proposes that the entire Circumference, the historical area of privileges, should be awarded status as a buffer zone. An evaluation has been made of whether the entire Circumference should be included in the Property, but modern built-up areas and the like that do not meet the requirements regarding integrity set out in the Operational Guidelines (Paragraph 87-89) form part of it. The buffer zone helps to protect the outstanding universal value of the Property. It gives a clear indication of wider historical and functionally important attributes, and thereby provides vital protection of the outstanding universal value in the three parts of the Property.

The perimeter of the Circumference passes through the border with Sweden. In 1648 the border between Norway and Sweden ran through the middle of Lake Femunden and the copper works did not therefore have access to this part of the Circumference. The border was moved to its present position further east of the lake in 1751, but naturally enough the Danish- Norwegian King could not grant privileges that encompassed Swedish territory. Consequently it is not appropriate to include the Swedish sector in the buffer zone.

Today the circumference comprises eight municipalities including Røros. All municipalities, with the exception of Tydal in the northeast, wish their part of the Circumference to be included in the buffer zone (Cf. Annex 1, Maps).

Important cultural landscapes in the Buffer Zone

Mining areas

The most important mines, Storwartz and Nordgruvefeltet, are proposed as part of the Property. These have been chosen to exemplify much more extensive mining operation within the Circumference. In the northern parts of the Buffer Zone traces of claims and mines can be found that represent a range of

categories – from exploratory operations to more long-term operations. Many of them were closed and reopened several times. Some of the more important are:

Raudhåmmåren, Røros municipality
The first mine, «Freies Glück», was established here in 1644. The mine entrance is still visible and there are some smaller claims from this period. The area was rapidly abandoned since it was not commercially exploitable. Today the area shows traces of operations from different periods of mining for both copper and chrome, and a commemorative plaque has been placed at the site of the first mine.

Gruvåsen, Os municipality
Deposits of ore were found in 1708 and operations lasted until 1727. Later, operations were resumed for several short periods of time. The ore was transported to the smelter at Tolga. There are altogether 19 mine openings on the steep hillside. Today all the mines are flooded and the buildings have been removed but the industrial cultural landscape remains otherwise intact. The area is characterized by the regrowth of birch scrub.

Killingdal – Bjørgåsen, Holtålen municipality
The mine was in operation from 1677 to 1692. In the 1800s Røros Copper Works lost its rights to run the mine and it was purchased by another company. The Bede Metal & Chemical Co. Ltd. invested in advanced technical mining operations from 1895 to 1945. This technology was developed independently of Røros Copper Works and had therefore little direct impact on the community at Røros. Mining operations continued after this up to 1986. When the mine was closed, wide-ranging measures were implemented to prevent run-off from the rock piles at Killingdal. Most of the buildings were demolished but one barracks remains with a well-preserved interior.

At Bjørgåsen, where the administration was based, the buildings and workshop are preserved and large parts of the interior are intact, while the railway's loading plant is preserved at Storvollen. The plant documents modern mining history in the area.

Moreover, in Holtålen there are many traces of mines and deposits that were operated by other companies after the privileges of the Røros Copper Works ceased to exist.

The industrial landscape around smelters in the Buffer Zone

Dragås and Eidet smelter, Holtålen municipality
Dragås smelter was established in 1727 at Storfossen and was in operation until a new smelter was built further south on the river. Few traces of this can be found today. On account of lack of space in the narrow valley at Dragås, it was decided in 1832 to build a new smelter at Eidet. While the other smelters were closed almost immediately on the arrival of the railway in 1877, operations continued at Eidet for ten more years. Today the ruins of the furnace remain and the surrounding landscape contains many traces of the smelting operations. The ruin started to tilt due to unstable ground conditions and for a long period of time there was a danger that it would collapse. It has now been shored up by a slab of concrete and it is the most important furnace ruin in the Circumference. Eidet is also of interest in relation to transport. The main road to Trondheim passes through the valley. The valley with the river and waterfall at the end is extremely narrow and it has always been difficult to pass this point on the road. This is shown for example by the traces of three to four generations of roads and two different railway lines.

Tolga
Prior to the building of the smelter, Tolga was almost unpopulated. Røros Copper Works set up a smelter in 1670 beside the waterfall in the River Tolja, a tributary of the River Glomma. The smelter was in operation until the railway line was built to Røros. It was demolished the same year as the railway opened and today only the remains of slag heaps along the river banks bear witness to the existence of the smelter

and the old ore site. However, the mining settlement that was established is still located there, and many of the buildings are well preserved. The housing shows that the community functioned in the same way as the Røros Mining Town where the workers were also engaged in agriculture. The buildings with their courtyards lie close to each other along two streets. For the most part the farms are still in operation. The church is in many ways similar to the church at Røros and shows the dominating position of Røros in the area.

Feragen

The smelter at Feragen was established as early as 1661 and was in operation until 1692. Ore from Storwartz was transported here for smelting, showing that even then there was a shortage of timber around the smelter at Røros. The chief engineer's farm remains, as well as a slag heap that appears to be completely untouched since the closure. Feragen had the status of a free mining settlement, and the workers could consequently clear land for farms in the area (cf. *2b History*). Farming continued after the closure of the smelter and a number of farms are still in operation and have buildings preserved from the 1700s and 1800s.

In the mountains west of Feragen lies an area of chrome mines. Operations at this field were commenced by Røros Copper Works in 1824.

Agrarian cultural landscapes

The activities of the copper works were of importance for the farmers in the entire Circumference. Mining operations at Røros signified a near «revolution» for the farmers in the surrounding area. «Everyone» worked for the copper works in connection with transport, felling timber and the production of charcoal. Although people were obliged to work for the copper works, the mining activities also opened up opportunities for them. Farms that were already established in the main valleys north and south of Røros Mining Town acquired extra income and this also made it possible to clear land for new farms in marginal areas where previously there had only been summer grazing farms. New communities grew up at places such as Narjordet, Nørdalen and Tufsingdal.

All the farms in the region were dependent on utilising uncultivated land. The farmers had summer grazing farms in order to exploit rough grazing resources in outlying areas. In this way the widespread cultural landscapes with summer grazing farms and pastures were formed inside the Circumference.

Harvesting uncultivated land

In order to tide people and animals over the winter, all resources were exploited. Therefore the uncultivated areas were harvested, and reindeer lichen was gathered to serve as animal fodder. The hay and lichen were stored temporarily and transported home on the winter snow.

Sølendet at Brekken was one of the most fertile uncultivated marshes and was harvested for several hundred years up to the 1950s. All these years of harvesting have resulted in a wealth of different species and in 1974 Sølendet was listed as a nature reserve because of its flora (for instance its 29 species of orchid), and a reference area for the harvesting of uncultivated meadows in Scandinavia's central mountain areas. Today the area is tended in the traditional manner, with state funding. The botany, cultural landscape, fauna and hydrology are documented in several doctoral dissertations, theses and scientific articles. The area is of international interest and is referred to as Telmamarsh and Biogenetic Reserve. It has also been associated with climate research.

Traces of charcoal production

Large amounts of preserved charcoal pits (burned out charcoal kilns) bear witness to Røros Copper Works' enormous need for charcoal. The farmers burnt charcoal in the forest, and traces of this can be found in the form of charcoal burning pits usually measuring 10-12 metres in diameter. In Nørdalen, a cultural heritage

trail and path has been established, passing through an area with many charcoal burning pits and with a reconstructed charcoal kiln and a charcoal burners' hut.

Sámi cultural landscape
Traces of Sámi activities can be detected in large parts of the Circumference (cf. *2b History*).The greatest density of registered Sámi monuments and sites is to be found in the northeast.This tells us more about where registration has taken place than about what areas have been used by the Sámi. Most of the sites stem from the period of reindeer husbandry that began at almost the same time as the founding of the copper works.Traces of Sámi activities are revealed in the form of round-up places for reindeer, underground storage pits, foundations of storehouses, settlements and mountain farms where the Sami settled in the course of time, as well as sacrificial sites and burial places.These traces are often seen in the same landscape as that used by the farmers. A physical sign of the collaboration between the Sámi and the farmers can be found in the storehouses that the Sámi were allowed to build at farms that were strategically situated on the route between the seasonal grazing grounds. Here they kept food and equipment, and the farmer looked after the storehouses so that the Sámi avoided the risk of having their possessions stolen.The Sámi still carry out reindeer husbandry in the areas to the north and east in the Circumference.

Transport routes: Roads and canals
The entire Circumference is criss-crossed by old paths and roads used for transport.The main roads to Røros followed the largest valleys at approximately the same place as today's roads and railway. In addition there are a number of connections of varying standard – from riding tracks to paths.These are currently being registered. However, the bulk of the transport took place on the winter snow and on frozen rivers and lakes.

As early as the end of the 1600s the copper works had plans to establish a canal connecting the waterways in order to float timber between Femunden and Feragen and down to Hådalsvassdraget and on to Røros. The system was completed with a canal and three timber slides in 1764.This was restored between 1992 and 1996 (cf. *2b History*).

2b History and Development

The Røros region prior to the establishment of Røros Copper Works

In the Røros district, archaeologists have unearthed archaeological sites from the Stone Age and subsequent periods.The oldest traces of settlement, hunting and fishing date from the around 5000 AD. Along the rivers, such traces are found even on the surface, because of the meagre soils. Findings have been made that indicate production of iron based on marsh ore over a prolonged period from several centuries BC up to the 19th century.

The oldest definite traces of agriculture have been dated to 900 AD, but the Black Death in the mid-14th century left the region close to depopulated.

In the mid-17th century, farms were established in low-lying fringes of the Circumference at Holtålen, Os and Tolga, but the area in which the present Røros Mining Town is located was very sparsely populated. There were a few recently established farms, for example Åsen and Rørosgård, which lent its name to the town.The Bailiff's Accounts for 1645 list six farms with a total of 16 persons over the age of 15 in the region.The farmers also used the Røros region for summer grazing farms, hay-making, hunting and fishing.The region was also home to a Sámi population, and around the year 1600 these Sámi shifted from hunting and fishing to nomadic reindeer husbandry.This change took place almost simultaneously with the establishment of mining activities in the region.

The mining industry in Norway in the 16th and 17th centuries

Mining of ore deposits in Norway had started in the form of some short-lived attempts during the 16th century, but it was not until the reign of the Danish-Norwegian King Christian IV (1588-1648) that mining on a major scale and of a lasting character was established. The king needed the income and the metals in order to wage his wars of expansion, and he therefore strongly encouraged prospecting for ores to uncover the riches that were hidden in the Norwegian mountains. Kongsberg Silver Works was established in 1623, followed by a dozen iron works and the copper works at Kvikne in 1630, Røros in 1644, Løkken in 1654, Selbu in 1717 and Folldal in 1748.

Similar developments were simultaneously underway in large parts of Europe. The Germans were at the forefront in mining, and German miners came to Norway bringing their language and their skills with them. At Røros, the German influence remains visible even today in the names of people as well as mines.

Røros Copper Works

According to tradition, the ore was discovered in 1644 by the farmer Hans Aasen, who had just cleared a farm by the Hitterelva river. The farm is still located in the old mining town, and is still owned by the same family. The first mine at Rauhåmåren, to the northeast of present-day Røros, proved to be not commercially viable, but mining activities started up at Storwartz in 1645. The name is a German approximation of the local name Storvola. A smelting house was built near Hans Aasen's farm at a waterfall in the Hitterelva river, and Røros mining town grew up around it.

The Circumference and the privileges

In 1646, the Danish-Norwegian King Christian IV signed a letter of privileges for a circumference of four miles with the Storwartz mine at its centre, the mine which today is referred to as «Old Storwartz». At the time, several units of measurement were in use in the Danish-Norwegian kingdom, and the length of King Christian IV's mile is therefore very uncertain. The delimitation of the area of privileges enjoyed by Røros Copper Works was therefore not entirely clear, but this was of little importance in the initial years of the works. Towards the end of the 17th century the measurement unit was determined, and a Norwegian mile was defined as equal to 11.3 kilometres. The copper works later used this measurement unit. However, there was still uncertainty as to where the border was located due to the inadequacy of the map base at the time, and this led to continual discussions. The circumference of Røros Copper Works was the largest ever granted within the joint Danish-Norwegian kingdom. This was due to the marginal conditions prevailing over most of the area, with bare mountains and sparse forests.

With the setting of the Circumference, Røros Copper Works gained considerable rights. Inside the Circumference, the company had a monopoly on exploitation of all mineral, forest and water resources, and the farmers living inside the area were required to work for the company, although they received some payment. As compensation for the privileges, the king was entitled to a tithe of all copper that was produced. In addition, he imposed a duty on all copper that was exported.

Røros Copper Works was organized as a «participantship», meaning that the copper produced was distributed among the participants (owners) according to the size of their ownership share, and they had to arrange for the sale of the copper themselves. Operating capital had to be advanced every year by the participants. The copper works was obliged to arrange for food supplies to the mining town and the other mining communities that gradually sprung up, and was therefore required to keep a stockpile of provisions. The company paid for the school and the doctor, and had to look after workers who were injured in accidents and their widows and children if they perished. A separate court of law was established – the Mining Court – where the director presided in the case of minor offences, and the company had its own jail.

The profitability of the mining activities was very variable, depending on international prices for copper, and in periods of recession the participants sometimes failed to fulfil their obligations. This resulted in misery and destitution in the population, but it is nevertheless assumed that the living conditions among the working families of Røros were better than in many other places in Norway.

The privileges granted by the Danish-Norwegian king were annulled in 1814 when Norway became independent, although under the same king as Sweden. In 1818, a separate act on Røros Copper Works was passed, and this act maintained some of the privileges, but put an end to the company's trade monopoly.

Røros Copper Works and Kongsberg Silver Works grew into the most prominent mining corporations in pre-industrial Norway, i.e. until the end of the 19th century. The period from the 1740s and until the turn of the century was the golden age of Røros Copper Works. At that time, 600-700 men were permanently employed in the mining and smelting activities, in addition to all those who were engaged in logging, transport and production of charcoal. During this period, approximately 70 per cent of the operating costs were incurred by these activities, and only 30 per cent went into running the mines and smelting houses. The figures bear witness to the importance of the farmers for the mining activities, and they also indicate the financial resource that the copper works represented for the population in the entire district.

During the 18th century and the first half of the 19th century no major changes were introduced to the operations, although some improvements were made, including a transition from fire-setting to the use of gunpowder, improved transport, introduction of better methods for sorting and better equipment for forcing air into the furnaces.

The operation of the copper works remained mostly profitable until the 1860s, when copper prices gradually fell and operating costs grew. Around 1870, the situation had become precarious. Towards the end of the century this spurred major efforts to identify new technology that could make production cheaper, and the copper works was consequently among the first to introduce new methods that recently had been developed in England, France and the United States.

World War I led to a final period of prosperity. The production subsequently declined as more modern mines based on other types of ores were established elsewhere in Norway, and Røros gradually became a small mine in the Norwegian context. Røros Copper Works finally went bankrupt in 1977.

Total production over 333 years:
Raw ore: 6 000 000 tonnes
Copper: 120 000 tonnes
In the 18th century, Røros Copper Works was the leading source of export revenues for the Danish-Norwegian state.

Mining and smelting techniques until the 1880s

Norwegians had little competence in mining in the 16th and 17th centuries, and German miners from Harz/Saxony were therefore hired by the Danish-Norwegian king. Miners arrived at Røros directly from Germany, but there were also second-generation miners from the first wave of immigration earlier in the century. The technology underwent few and only gradual changes until the end of the 19th century. The ore was extracted by heating the rock face with firewood, later gunpowder was also used. Initially all work was manual, only aided by horses. Later on, the ore was transported out of the mines with hoists, and water was pumped out of the mines with the aid of waterwheels with power transmission rods.

The ore was sorted into three classes: Ore with a five per cent copper content, lower-grade ore and rock. The two last-mentioned were left in large rock piles outside the mines.

The ore went through a five-step roasting and smelting process that separated the sulphur and iron before the final product, raw copper, could be transported to Trondheim.

1) Cold roasting – in the beginning this was often done next to the mine.
Ore in fist-sized pieces was layered in piles together with the roastwood, logs two to three metres in length. Roasting would normally take 12-15 weeks.

Final product: Roasted ore.

Traces in the landscape: Red patches of precipitated iron on the ground.

2) The first smelting: Matte smelting
The roasted ore was transported to a smelting house.
Smelting was carried out in a furnace constructed of stones, approximately one metre in diameter and 6-7 metres high. The furnace was stacked from the top with layers of roasted ore and charcoal. The smelting process took approximately one week, with continuous refilling and tapping.

Final product: Round slabs of copper matte, with approximately 20 per cent copper content.

Residue: Slag. The slagheap at Røros contains approximately 0.4 per cent copper.

3) Turn roasting
This was done in the open air in roasting chambers made of stone. Roastwood and copper matte were stacked in the chambers, and the matte slabs were transferred from one chamber to another. This process removed most of the remaining sulphur.

Final product: Turn-roasted plates.

Traces in the landscape: The walls of the roast chambers are often preserved, e.g. at Femundshytta.

4) The second smelting: Black-copper smelting
This smelting round was done in a furnace of the same type as used for the copper matte. Charcoal and turn-roasted plates were added in layers.

Final product: Black copper. This copper was not suitable for forging.

5) Refining
Smelting of the plates of black copper was done in large iron vats heated with charcoal.

Final product: Raw copper. This was the end product that was transported to Trondheim.

Core roasting
Core roasting was a method suitable for ore which was high in sulphur and with a low copper content, the so-called second-grade ore containing approximately two per cent copper. During the roasting, the high sulphur content caused the copper to concentrate in a core surrounded by iron, and this core could subsequently be hammered out by hand. This was often the children's work. This method had been invented in the 18th century and was used for the high-sulphur, low-copper ore from the King's Mine.

Use of natural resources by the copper works

Ore
In the Røros field, copper ore is typically found in a number of small deposits. The ore from the different deposits had widely differing copper content. For example, the ore from the King's Mine had a high content of pyrite. Towards the end of the 19th century demand for sulphur rose, and the rock piles near the mine could be exploited. The copper ore from the Muggruva mine was very pure, and was sometimes added to ore from other mines during smelting.

During the 19th century, Røros Copper Works also operated chromium mines at Feragen, and in the final years of the works' operations also some zinc mines at the Nordgruvefeltet mining field.

Timber

From the start and up to the time of modernization at the end of the 19th century, finding a sufficient supply of timber was the main challenge for the copper works. Large amounts of timber were required for the operations of the works. The mines used wood for heating the rock face, and the five-step smelting process required roastwood and charcoal. In addition, timber and planks were needed for all kinds of construction. Estimates indicate that the volume of charcoal and firewood was fifteen times higher than the volume of ore needed to produce raw copper. This explains why new smelting houses were built in wooded areas, and also why ore was transported to these instead of transporting timber to the main smelter at Røros.

> Estimates indicate that during the 250 years of operations using the old method, a total of 12 million cubic metres of timber were felled in the region
> This corresponds to approximately 50,000 cubic metres per year on average.

After approximately fifty years of operations, the timber resources in the area around the smelter at Røros had been exhausted. Gradually, this also became the situation in the entire Circumference, and timber had to be fetched from distant regions. The unsheltered location and pollution caused by the mines and smelters, in combination with heavy grazing by domestic animals prevented the forests from growing back. Only in recent years have birch scrub and other types of woodland again been seen on the exposed hillsides around Røros.

The importance of Røros Copper Works in the Norwegian context can be clearly seen in the border negotiations that were conducted with Sweden in 1751. Primarily, these negotiations concerned the northern border between the two countries, but the director of the copper works succeeded in changing the course of the border in the vicinity of Røros. The Swedes wanted the border to run through the middle of Lake Femunden, but it was now finally settled in its present position east of the lake. With this move, the copper works gained access to the forests also on the far side of Lake Femunden.

Water power

The copper works needed water power to operate waterwheels, which in turn supplied power to pumps and hoists in the mines, and to bellows for the smelters. The area is rich in lakes and rivers, so in general this did not represent much of a problem, although it could be difficult to locate sources of water on the mountain tops near the mines. There was also a need to regulate the flow of water, and systems of dams and aqueducts are found near all mines and smelters.

Transport up to the 1880s

The mines, smelters and settlements generated an enormous need for transport. Ore, charcoal, firewood, roastwood and construction material had to be transported to the smelters and mines, and the copper had to be transported to Trondheim. The mining communities were not self-sufficient in foodstuffs, and the area's potential for agricultural production was limited. The copper works was required to supply provisions, grain in particular, to the workers. The bulk of the transport took place during the winter season with the aid of horses or bullocks, as often as possible across frozen rivers and lakes. Today, the winter transport routes are barely visible in the terrain. Some marking sticks can still be found, along with some access ramps along the rivers. However, traces of the transport routes can be seen in the large posting stations and farms that were built along the routes, where drivers and traders could find lodging for the night. The farms supplied stables for horses and accommodation for the drivers. Even in Røros itself, people put drivers up for the night, and nearly every house in the mining town accepted lodgers and had stables for their horses.

The summer routes consisted of longer paths and tracks which were only passable by pack-horse. Gradually, roads suitable for horse-drawn carts were built. Many of the old main routes into and out of the area followed the same routes as the present national roads. In addition, we find a wealth of smaller paths and routes for local traffic between the mines, the smelters, the town of Røros, the farms and summer grazing farms inside the entire Circumference.

During the years 1756-1759, a new smelter and a dam was built at the southern end of Lake Femunden (outside the Circumference), and this dam raised the water level in the lake by more than three metres. Its purpose was to enable timber to be floated from Lake Femunden to the smelter at Røros. The dam gave rise to protests from several quarters, and even from the Swedish side of the border, because the river flowing out of the lake enters Sweden further south. The copper works was finally forced to demolish the dam and the smelter. It was never completely demolished, however, and the water level in Lake Femunden is therefore still 70 centimetres higher than its natural level. Instead of the large dam, a canal and three timber slides were constructed between partly dammed tarns linking the Femunden and Feragen lakes. The installation was completed in 1764, allowing timber from the Femunden district to be floated through the canals and further down the Hådalsvassdraget river system to Røros during the summer months. When the lakes froze during winter, the transport of ore from the Storwartz mine to the Femundshytta smelter followed the same route.

Farmers and others from far and wide, also from well outside the Circumference, worked as drivers for the copper works. The farms in the area kept far more horses than what was usual in other parts of the country to be able to take part in this work. Following the opening of the railway line to Røros in 1877 this transport pattern quickly changed, and the locally based transport for the copper works ceased almost completely.

The export of copper

Copper was an important metal in the 17th and 18th centuries. It was used for sheathing of ships' hulls and for production of pans, containers and coins. It was also a key ingredient in the production of bronze and brass.

The finished raw copper from Røros was transported to Trondheim by sledge on the winter snow, and distributed among the participants according to their ownership share in the copper works. Several of the participants belonged to families who had immigrated from Schleswig-Holstein and had established large trading houses in Trondheim. The participants had to arrange for the sale of the copper themselves, but in the 18th century this trade was coordinated. Most of the raw copper was exported, and it has been estimated that 80-85 per cent of it was shipped to Amsterdam. Some was also shipped to Copenhagen, Altona, Hamburg and to Spain. In the 18th century, Røros Copper Works constituted the single largest source of export revenues for the Danish-Norwegian state.

People and society in Røros mining town

At the time when the ore was discovered, the area which today makes up Røros municipality was nearly unpopulated. Consequently, the labour force had to be brought in from elsewhere. The owners, the so-called participants, were originally of Dutch, German and Danish descent, but their shares in Røros Copper Works were quickly acquired by wealthy merchants from Trondheim. These were rarely seen at Røros, but their representative, the director, as well as his officers, constituted the upper classes of the town.

The mining specialists came from Germany or were descendants of Germans who had been recruited to other mines in Norway earlier, and they brought with them the German technology. Other workers came from the regions to the north and south of Røros, as well as from Jämtland and Härjedalen in Sweden. There were clear class divisions, but there was no separate workers' district at Røros. The miners had their houses right next to those of the director and the other members of the upper classes.

Urban agriculture

The upper classes and the miners alike kept domestic animals and owned several plots of land and summer grazing farms outside the town area. The combination of agriculture and work for the mining company evolved over time into a complicated and finely tuned system, in which all resources had to be exploited to bring people and animals through the long and harsh winter.

From the start, the copper works encouraged their employees to clear land and keep animals to contribute to the production of their own food. Inside «the free mining town» the employees of the copper works could clear themselves plots of land and cultivate them without having to pay any leasehold rent. They became land owners. Houses in the town often had several plots measuring from half an acre to three or four acres, spread in strips around the town area. These plots were not used as pastures, but rather for growing grass for winter fodder for animals. Manure from the stables and cowsheds was spread on the plots, keeping them green and fertile in spite of the sulphuric fumes from the smelter. All the plots had a hay shed in the middle where the hay was collected in the autumn to be transported to town by sledge in the winter.

At Røros, agriculture was mainly an occupation for women. While the men worked in the mines and smelters, the women and children were left to take care of the livestock. Near the mines, barracks were built for the miners to stay for shorter periods. The copper works had introduced a five-day working week to allow the workers to take part in the family agricultural activities, and operations were closed down for a month during summer, so that the workers could bring in the hay and harvest other natural resources.

The miners as well as the upper classes had one or more summer grazing farms for their livestock in addition to the plots of land surrounding the town. In summer, women and children moved out of the town, which was left almost deserted. Hay was also cut on uncultivated meadows and marshes, and animals were sometimes kept on the summer grazing farms until Christmas, to avoid having to transport the hay from there into town.

In addition to the wild hay, large loads of leaves and moss (reindeer lichen, cladonia stellaris) were gathered to be used as fodder. One of the reasons for the use of bullocks as beasts of burden was that these could digest the moss and most other types of fodder, while horses depended on hay. Nature also allowed for hunting, fishing and berry-picking. Wood was scarce, and the copper works needed whatever timber was available. Peat bogs were therefore opened as a source of fuel and heating of houses.

Because of the town's remote location and periodic fluctuations in the copper works' stockpile of provisions, agriculture and subsistence farming constituted a more prominent element in the work of the employees of the copper works than what we can observe in other mining communities. The founder of Norwegian sociology, Eilert Sundt, wrote about Røros in 1858 that some of the workers considered their employment at the copper works as almost secondary to their farming. The workers who owned some land also had a more independent position in relation to the copper works. They were less dependent on the company, but this also meant that the copper works could cut their wages whenever they found this expedient.

Modernization of the mining operations and the reorganization of agriculture entailed a higher degree of specialization from the end of the 19th century. The miners' double status as both miner and farmer gradually disappeared. Urban agriculture continued, but was now undertaken by full-time farmers.

Gradually, landless people arrived in the town. They settled in small cottages on the outskirts of the mining town, often living in appalling conditions.

«The Røros cow»
In present-day Røros, we can find an old breed of cattle commonly called «the Røros cow», representing genetic material from the time when the copper works was established. The cow contributed to nutrition, and the bullock was used as a draught animal for transport. This breed is small, sturdy and hardy, and can easily find its way through rough grazing land. The cowsheds in the townhouses are adapted to the size of this breed, and it thereby set the standards for the outbuildings in the mining town. However, the breed went into decline following the rationalization of agriculture in the 1960s, and a special association has recently been established to ensure its preservation. Today, «the Røros cow» is a living testimony to mountain farming in general and to the miners' farming activities in particular.

The farmers of the Røros district
In addition to the fairly modest agriculture undertaken by the miners there were also full-time farmers living inside the Circumference. The farmers' activities were essential for the supply of firewood, roastwood, construction material and charcoal, as well as for transport. All these activities became part of the economic basis for the local farmers. The settlements grew, and the activities allowed for the establishment of farms even in marginal mountainous areas. The fact that the farmers had access to extra income can be clearly seen on the farms, which have unusually large houses in view of the fact that they are found in such a remote location. Some of the houses bear witness to the considerable wealth of the owners.

The Sámi of the Røros district
The Sámi lived in the Røros district even before the start of the mining activities. Around 1600, they were in the process of shifting from hunting and fishing to nomadic reindeer husbandry. The Sámi clung to their culture and way of life, which gradually developed as a consequence of changes occurring in reindeer husbandry practices. As far as we can ascertain today, the Sámi did not take up employment in the mines or the smelters, but they accepted transport assignments for the copper works and engaged in trade in reindeer products, such as meat, cheese, leather and horn products. Even among the settled population there were some who owned reindeer which were tended by the Sámi and were left to graze with their herds. Reindeer husbandry requires large areas as pastures, and as the farmers cleared land and mountain meadows some conflicts could occur between the farmers and the Sámi, but it is also known that the farmers and the Sámi could benefit from each other.

Around 1900, the Sámi started to settle on mountain farms and to live there permanently. They also stopped milking their reindeer, and based their incomes on the production of meat for sale in the marketplace. On the farm they often kept a few domestic animals. While the men followed the annual migration of the reindeer, the women and children were left in charge of the farm.

Reindeer husbandry has gradually been modernized with technical aids like binoculars, snowmobiles and new means of communication. Today, modern reindeer husbandry still remains a prominent economic activity in parts of the area inside the Circumference.

Mining activity since the 1880s

Total modernization and reorganization of the operations over a period of 20 years:
1877: Railway from Oslo via Røros to Trondheim
1887: The smelter at Røros adopts the Bessemer method
1897: Electric power

When a railway connection, which was to become Norway's first mountain railroad, was established between Oslo and Trondheim, Røros was included on the line. The first trains started running in 1877, and ushered in the first major change in the mining activities at Røros. Shortly after, the old transport system

had been dismantled in its entirety. This change also meant that the quest for timber could be abandoned, as coke was introduced as fuel for the furnaces. At the same time, the remote smelters were closed, and all smelting would henceforth take place at the main smelter at Røros. The railway also allowed for exploitation of the pyrite in the rock piles near the King's Mine.

New smelting technology was introduced in 1887, when the first Bessemer furnace was fired up at Røros. The method had been developed by Henry Bessemer and Sydney Gilchrist Thomas in England for use in iron production, and had been adapted to copper metallurgy by Pierre Manhès in France around 1880. Manhès' method was adopted at the Røros smelter, and three converters were purchased from France. One of Manhè's foremen travelled to Røros to assist during the start-up, and the technique proved successful from the very beginning.

In June 1888 the smelting house burned down, but a new house was built by October the same year. The new complex comprised two matte furnaces, a Bessemer converter and a refinery furnace. One of the matte furnaces was a so-called water-jacket furnace purchased from Chicago. The introduction of the Bessemer process still involved cold roasting and matte smelting, but now the molten matte could be poured directly into a converter. A process that previously took one and a half months could now be undertaken in one and a half hours. The process had to operate continuously, and all ore was collected to the central smelter in the town of Røros, leading to the closure of all the other smelters.

Electric power represented a final, major technological innovation. With the construction of the Kuråsfossen hydropower station in 1897, conditions in the mines changed immeasurably, introducing electric light inside the mines, electric power to drive the pumps and lifts, and an electric locomotive to transport ore and rock out of the mine. A cableway was constructed from the mines down to the railway for onward transport, and from the Olavsgruva mine a cableway was built by way of the Storwartz mine all the way down to the smelter in the town of Røros. A power transmission line was extended to the mining town, which was supplied with streetlights. The imminent crisis observed during the 1860s had been turned into a success story. During this period Røros Copper Works was technologically advanced, and for some years it remained the largest mining corporation in Norway.

Further improvements of the production process were introduced in the form of a flotation plant that came into operation at the Storwartz mine in 1926. The plant supplied copper pyrite concentrate to the main smelter, and this also spelled the end for cold roasting of ore there.

During the 20th century Røros Copper Works slowly lost importance and declined until it finally went bankrupt i 1977.

The development of Røros Mining Town as a centre for trade and industry and as a tourist destination

From the start, the copper works enjoyed a monopoly of all trade. The monopoly involved an obligation to supply food for the townsfolk and all visitors who were engaged in transport. This could be difficult during hard times, but was also quite profitable. However, other trade also took place, which was a source of constant complaints by the company. Following the 1818 act on Røros Copper Works, the monopoly was abolished and a limited number of merchants were allowed to establish businesses. From the mid-1800s all restrictions were abolished, and in 1854 the Røros Fair was officially introduced. The fair took place every year in February, attracting buyers and sellers from a wide area on both sides of the national border. The tradition still exists in the form of a large, annual five-day event with stalls and outdoor activities over the entire town area.

The gradual modernization of the copper works led to a decreasing demand for labour. A readjustment process was launched, and it gained in strength following World War II. New industries were established, such as sawmills, wood products, textiles, a large factory for office furniture, pre-fabricated houses, pottery, ventilators etc. When Røros Copper Works went bankrupt in 1977 a sufficient number of other businesses had been established to allow the town to continue developing. The effects of the bankruptcy were therefore less grave than anticipated.

After World War II, the qualities of Røros as a cultural heritage site were recognized, and tourism has since become a key industry.

The history of the mining town as cultural heritage

Around 1910, the first major local debate started over the protection of buildings at Røros, following the sale and removal of one of the local stately buildings, the Aspaasgården house, to Trøndelag Folk Museum.

Through his historical novels, the Norwegian author Johan Falkberget (1879-1967) contributed strongly to raising the national interest in Røros. In a period of difficult times for the copper works, and thus also for the population of Røros in general, he worked to promote an understanding of the mining town as a cultural heritage site through his novels as well as in his role as a journalist and politician.

As a consequence, the authorities responsible for cultural heritage increased their commitment to Røros. Since the end of the 1930s, the Directorate for Cultural Heritage has given high priority to repair work and conservation in the mining town. The result of this close to eighty-year period of restoration bears witness to shifting ideologies of conservation, and has made Røros into an interesting object of study as a cultural heritage site.

In 1920, Norway's first legislative act on the protection of old buildings was enacted, and Røros was included in the first round of buildings listed for protection. A further round of listings was carried out during the 1940s.

During the first thirty years a number of restorations of individual buildings were undertaken, and some buildings were made to appear older than they really were. This decision was based on a desire to restore the general character, the «townscape». In particular, the panelling and details of the «Swiss style» from the late 19th century were replaced by details that belonged to an earlier period. Along the two main streets, many buildings were clad with an exterior panelling – a feature that some of these houses had never had before. In the areas beyond the main streets, like Flanderborg on the eastern side of the river, more of the original panelling and details of the Swiss style have been preserved.

During the 1970s and 80s efforts were made to «beautify» the town in the case of street signs and streetlights, and a colour profile was established for the most important streets. The colour profile was based on traditional colours for houses in inland Norway, but with the aim of achieving an aesthetic unity. House owners were supplied with paint at no cost, in return for a pledge to follow the colour profile. This arrangement is still in effect.

During the «European Architectural Year 1975», Røros was selected as one of four Norwegian pilot projects, and Røros was added to the World Heritage List in 1980. Thereby, the cultural heritage values of Røros have been perceived and recognized by the international community at the highest possible level.

The establishment of Røros Museum at Malmplassen square

When the copper works went bankrupt in 1977, there was a clear perception in Norway of the value of the town of Røros and Røros Copper Works as cultural heritage. The Government allocated a grant to purchase parts of the Copper Works' former property, with a view to safeguard them as cultural heritage.

Thereby, the Government came to own the Malmplassen square and the slagheaps in the town area, as well as the Storwartz mine. A decision was made to rebuild the smelting house that had burned down on the ruins, and use this building as a museum in combination with the other buildings on Malmplassen square. The Røros Museum Foundation was established on the basis of two pre-existing associations. The museum is currently responsible for the Malmplassen square, which is the main square of the town, as well as the adjacent buildings, the slagheaps and the museum buildings at the top of Sleggveien street, in addition to the Storwartz area with the Olavsgruva mine, which is open to visitors.

Småsetran
Even prior to inscription on the World Heritage List, the small plots of land previously used for the production of hay set against the densely built town with its wooden houses were acknowledged as areas of historic value.

Throughout the 1970s, the cultural-heritage authorities had taken a stronger interest in complete cultural environments and cultural landscapes. At the same time, the municipal authorities wished to designate an area east of the town, called Småsetran, as an area for residential housing. The area was well suited for this purpose, because it was close to the town and located on a slope facing south. Following an evaluation of its historic value the Ministry of the Environment found this unacceptable. After ten years, the Ministry of the Environment finally took the opportunity to establish a governmental plan for the preservation of the old cultural landscape. This became Norway's first zoning plan of its kind, and it reconfirms the position that Røros by that time had gained as a cultural heritage site.

Descriptions of the Røros district by early visitors

During the 18th century Røros attracted a number of visitors who described the mining town and the surrounding area. At the time, most of these visitors assumed a scientific perspective in their observations of mining and agriculture. These contemporary descriptions provide interesting information on a number of issues. A selection of these is given below.

Carl von Linné, Swedish botanist, visited Røros in 1734 after crossing into Norway on the eastern side of Lake Femunden with his entourage of ten persons and ten horses. His description was one of the first to be made of the town of Røros and the surrounding district. The mining town is described as a small cluster of one-storey houses, with few merchants and no gardens. He found no tilled fields in the district, only pastures used by the draught animals required for the transportation needs of the copper works.

Major Peter Schnitler, of German-Danish descent, grew up in Copenhagen. In 1742 he visited Røros to carry out investigations to serve as a basis for a final settlement of the Norwegian-Swedish border, including the area along Lake Femunden. He observed that the forests around the mining town had almost been completely razed, and appeared not to be growing back. He also described the Sámi living in the region and their way of life, as well as the conflicts between the Sámi and the farmers.

Erik Pontoppidan, Danish theologian, Royal Chaplain of the Danish court and Bishop of Bergen. In his book «The Natural History of Norway» from 1752-53, he described Røros Copper Works as a prominent enterprise, possibly the largest copper works in Europe, because the copper mines at Falun in Sweden were reported to be exhausted. He also described the deforestation around the main smelter at Røros and the establishment of new smelters in locations where timber for charcoal production could still be found.

Gerhard Schøning, geographer and one of the founders of the Academy of Sciences in Trondheim. In the years 1773-75 he travelled around in Norway. He described the Røros district as deforested, with arid, stony and infertile fields. However, he noted as an exception the green grasslands surrounding the mining

town, which had been cultivated with great effort by the mine workers. He also described the bogs where the workers cut and dried peat. The town itself is described as fairly large, with stately houses and several streets. He was impressed by director Peder Hiort's summer residence Engan (also called Hiortengan), with its gardens and fountain.

Johann Christian Fabricius, Danish entomologist, student of Linné in Uppsala and later professor in Copenhagen and Kiel. In 1779 he published his book «Reise nach Norwegen mit Bemerkungen aus der Naturhistorie und Oekonomie». He described the situation at Røros as unfavourable in comparison to other mining towns, because the mining operations and the food were costly due to the long transport routes involved, and also because of the harsh climate. His descriptions of agriculture and life on the summer grazing farms were quite comprehensive, and he also described director Peder Hiort's summer residence. Fabricius was critical of the copper works, and claimed that the deforestation partly was caused by senseless use of timber in the first years of the copper production. The town was not very densely built, and the church was small and dilapidated. (The new church was completed in 1784). Furthermore, he described the Sámi as a proud people, but as a people living in poverty and misery.

Peder Hiort, director of Røros Copper Works, wrote his «Description of Røros Copper Works» around 1780. This was the first in a series of books that described the history of the copper works. He also considered the plans for further development, and his main concern is the scarcity of timber. Scarcity of labour was made up for by fetching new workers. In good times population in the area grew, but people were dependent on working for the company even if they had their own farms. When the company met with bad times, misery resulted, Hiort wrote.

Cornelius de Jong, a Dutch captain who had to seek a port of refuge and stay for a winter in Trondheim in 1795-96. He travelled to Røros in February, and described his impressions in a letter that later was published. Røros is described as a town with around 3,000 inhabitants, with 120 men working in the smelter. They were all emaciated and pale from the sulphuric smoke, the constant shifts between heat and cold by the furnaces and a poor diet. In his opinion, all the employees of the copper works, even the director, were poorly paid, and he felt pity for all those who had to live in this cold and infertile part of the country, where there was a risk of snow all year round, no tilled fields, no horticulture and a scarcity of grassland so that the animals had to be fed leaves, moss or horse manure.

Thomas Robert Malthus, English economist and clergyman, and Edward Daniel Clarke, English mineralogist, travelled to Røros in 1799. They both described the Røros district as desolate and the miners as unhealthy because of the sulphuric fumes. They encountered the Sámi and described their reindeer husbandry and their relationship to the farmers in the region. Clarke is positively surprised by the town of Røros.

In the 19th century several reports were made by travellers on scientific or official trips. Their descriptions are basically similar to those noted above. In the course of time, some pure travelogues were also published, nearly all of which mentioned the deforestation and the unhealthy appearance of the miners. Here we will only refer from the description made by Eilert Sundt.

Eilert Sundt, founder of Norwegian sociology, travelled the length and width of Norway to describe the conditions and ways of life of the population. He spent more than three weeks at Røros, and prepared a detailed report which was published in 1858. Like the others, he expressed his concern for the timber resources. The relationship between the Sámi and the farmers was described as having the character of peaceful coexistence as well as being conflict-ridden. His main topic was the diverse elements of the urban agriculture undertaken by the copper workers – the plots of land close to the town, the summer grazing farms, and the gathering of wild hay and moss. He was the first to point out the role of women in these activities. The green plots of land are described as positive elements in an otherwise bleak landscape. He emphasized the necessity of fertilizing the plots to counteract the destructive effects of the sulphuric

fumes from the smelter, and claimed that the animals found in the town did not supply sufficient manure, so that fertilizer had to be purchased or collected from what was left by the visitors' horses. Røros is also described as a centre of trade «with a busy market from New Year and well into March».

Røros and the artists

Johan Falkberget (1879-1967), writer
Falkberget was born at Røros. He had worked for the Copper Works in his youth, and returned to Røros as an adult. He was also active as a journalist and politician and is considered to be one of the most prominent Norwegian writers of the first half of the 20th century. His home, Ratvolden, is preserved as a museum, located just below the Muggruva Mine. This house is situated within the proposed extension of the World Heritage Site. Falkberget's novels describe life at Røros in various periods, and contributed strongly to making Røros come alive in the Norwegian imagination, and to awakening interest in its preservation.

Harald Solberg (1869-1935), painter
Solberg was one of the most prominent Norwegian painters in the first decades of the 20th century, which was a golden age of Norwegian pictorial art. He painted symbolic landscapes and developed a characteristic style with sharp contours. Some of his paintings have become immensely popular, and form part of the Norwegian cultural identity. In the period 1902-05, Solberg lived near Røros, and painted subjects from the town. One of his paintings depicts the church and the buildings towards the top of Kjerkgata street, and this row of houses has since become known as «the Solberg row». The painting became so well known that it spurred protection of the entire row of houses (cf. annex 2 Photographs).

Some distinctive cultural features of the Røros district

The people who settled at Røros and were employed by the copper works came from Germany, Sweden, Denmark, Trondheim and neighbouring districts. They brought with them their different cultures, which gradually amalgamated to assume a character specific to Røros. The culture was strongly influenced by the mining activities. These characteristics are still evident in a number of phenomena, for example the local dialect, dance and the tradition of the Røros Fair.

The dialect
The dialect was originally based on the local dialects from the settlements around Røros. However, the German mining experts brought with them their language and their mining terminology, and the Swedish workers also had some influence on the dialect. As a result of these influences, the Røros dialect is distinct from other Norwegian dialects. Many families at Røros have German-sounding names, and the German influence is also evident in a number of place names, for example Storwartz, which is a Germanized version of the original Norwegian name Storvola.

The Røros Pols Dance
In the 18th century, Røros Copper Works had its own band of musicians to entertain the bourgeoisie. The music of the lower classes was the Røros Pols Dance, the oldest couple dance in the Nordic countries. This form of dance has remained one of the most colourful and distinctive characteristics of the popular culture of the region. The designation «pols» stems from Polish dances that became popular in Sweden in the 17th century. On its way north, the dance developed new forms locally and was adapted to new environments. The Røros Pols Dance is characterized by an unbridled vitality and humour, with compelling rhythm and movements, and a light-hearted execution of the melody that encourages the dancers to perform with exuberant frenzy. In consequence, it is regarded as «the king of dances» within the fiddle-playing areas of Norway and in Jämtland and Härjedalen in Sweden. Since the 17th century, Røros and the surrounding

communities have been home to a large number of proficient fiddlers and dancers. As a tradition, the music and dance of the Røros Pols remain strong, and many of today's performers have reached an international level of performance. The popularity of this tradition has caused the dance to be recognized and performed in many parts of the country, as well as in folk-dance circles in Sweden, Denmark and the United States.

The Røros Fair

The winter fair at Røros takes place towards the end of February every year, and lasts for five days. This fair was officially established in 1854, but winter fairs were common in the mining town even earlier. The present fair represents a continuation of this tradition. Stalls are erected on all available space in the streets, and the many courtyards are opened for the sale of food and beverages. During the opening ceremony approximately eighty horse-drawn sledges arrive at Malmplassen square from the surrounding valleys and from Sweden. The horses are placed in the town's stables. As in earlier times, the Sámi come to town to sell their products and handicrafts made from leather and horn. This is the main event of the year at Røros, attracting more than 75,000 visitors.

3 Justification for inscription

3a Criteria

Background: The original justification
The wooden town of Røros was inscribed on the World Heritage List in 1980 under the name: «Röros» and on the basis of criteria (iii), (iv) and (v). In the nomination document of 16 May 1978 the State Party gives the following justification for inscribing the property on the World Heritage List:

> *Røros is a unique mining environment with exclusively wooden architecture. For 333 years the town has combined impulses from Germany, Denmark, Sweden, Trondheim and neighbouring districts. This has resulted in a wood-constructed environment containing much of the finest of the Norwegian tradition, which has at the same time become something very special in our land on the industrial, social, and cultural planes as well as on the architectural.*
>
> *Røros mining village with its environment is a characteristic example of the significant traditionalstyle of wooden architecture which forms a unique mining village at the height of 600 m. Above sea-level*

In its evaluation of May 1980, ICOMOS gives the following justification for inscribing Røros on the World Heritage List:

> *Within the framework of Norway's inventory of cultural property, Røros ranks in importance with Bryggen and the Stave church at Urnes, which have already been inscribed on the World Heritage List. Røros is an extensive mining settlement dating from 1644, when the development of the copperworks began. Its physical history has continued without interruption since the town was burned in 1679. Thus the numerous surviving buildings represent the Norwegian tradition of wooden construction that flourished in the eighteenth and nineteenth centuries. The buildings reflect the dual occupations of the inhabitants, mining and farming, the domestic groups being arranged as compact farmyards. These groups are disposed on a regular urban pattern adapted to the mountain terrain, reflecting the particular kind of industrial planning introduced by the Danish kings of Norway in the sixteenth and seventeenth centuries. Røros is a characteristic example of this type of technological and industrial development, as well as being an outstanding survivor of a traditional kind of human settlement built in traditional methods of construction. Also it has become vulnerable under the impact of economic change since the recent cessation of copper mining after 333 years of continuous activity. Lastly Røros embodies a strong degree of rarity because of its location. It was built as an industrial community in the mountains (650 meters above sea level) at a very northern latitude (62°35'N) subject to extremely long winters and low temperatures (-50 degrees C). For these reasons Røros qualifies under criteria iii, iv, v and is therefore recommended for inscription on the World Heritage List.*

Røros was inscribed on the World Heritage List as part of the second group of nominations. At that time, the requirements had not yet been clarified and both the nomination document and the ICOMOS evaluation are very basic documents. The quotations above give the complete text of the justification from both documents.

On inscription in 1980 the boundaries of the World Heritage Site were not clearly defined. In practice, the area that had been designated as a conservation area pursuant to Section 25.6 of the Planning and Building Act was considered as the World Heritage Site. This covers the main parts of the old town centre. (This

delimitation was formalized in connection with the Periodic Reporting in 2006.) However, in the original justification, «Røros mining village and its environment» is mentioned. Consequently from the very start the value of the surroundings for Røros Mining Town as World Heritage was recognized.

After 10 years as a world heritage site, the Directorate for Cultural Heritage commissioned ICOMOS Norway to conduct an evaluation of the management of Røros Mining Town. The evaluation was completed in 1993 and it was recommended that the State Party should put forward a proposal that the World Heritage Site be extended to incorporate several elements that further explained its value, and that the Circumference be established as a buffer zone. Work on a proposal for this extension commenced in 1995.

The nominated extension comprises cultural landscapes that help to explain why the mining town was founded and how it functioned. The new areas are governed by the same criteria – (iii), (iv) and (v) – and reinforce and elaborate on the original justification of the outstanding universal value.

The original nomination document did not specify the values in relation to each individual criterion. This information is given below for the proposed extended World Heritage Site in its entirety (i.e. including the currently inscribed Røros Mining Town).

Criterion (iii)

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

From the time copper ore was found in the mountains at Røros in 1644 and over the ensuing 333 years until the copper works went bankrupt in 1977 a unique culture developed in the remote and sparsely inhabited area. The uniqueness rests in particular on the testimony preserved that shows how technology and people could adapt to the remoteness of the location and climatic extremes in order to extract the valuable copper.

With German mining technology as a starting point, German, Danish, Swedish and Norwegian immigrants created a mining community under extreme conditions. The community developed in collaboration with the few farmers and the Sámi who already lived and worked in the area. Today there is no mining in the area, but Røros Mining Town and the traces of mining, smelters, transport systems and systems for water management, bear a unique testimony to the adaptation of technology to the requirements of the natural environment and the remoteness of the situation. Testimonies of the dual occupation of the inhabitants, mining and farming, is clearly seen in the preserved structure of the town and in the surrounding cultural landscape. The urban agriculture with its specialized system for use of resources show in an outstanding and coherent manner how people were forced to exploit to the full all available natural resources in order to survive and establish a community in an area that could not provide enough food for its own population. Transport was mainly done on frozen lakes and rivers during the winter. Testimonies of this activity are revealed by the stables and buildings, built on the farms and in the town, for overnight accommodation for those involved in transport.

A distinct and proud culture emerged in this setting. Inside the «free mining town», the miners owned their own farms and had a relatively high degree of freedom vis-à-vis their employment at the copper works. Towards the end of the 1800s major changes took place in the field of mining and transport. The cultural heritage of this period such as flotation plants, cableways, a power station, railway tracks, etc are also preserved. As the importance of the copper works gradually diminished, the community successfully readjusted to new activities. Therefore when the copper works finally went bankrupt, the consequences for Røros Mining Town were undramatic.

The mining operations and the urban agriculture that involved keeping livestock have ended and the cultural heritage sites where these activities took place have fallen into disuse. Today Røros Mining Town is a living urban community based on industry, trade and tourism. However, the traces of the old mining culture remain in the cultural heritage sites as well as in the German-influenced place names and family names, in the dialect which contains many special words, the Røros pols dance, the Røros breed of cow, and in traditions such as the Røros Fair.

Criterion (iv)

(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.

Nordic towns of wooden construction are a significant expression of building traditions in northern Europe. Røros is an outstanding example of a Nordic town of wooden construction. The original town structure is completely retained with well-preserved buildings bearing the stamp of the 1700s and 1800s. The town plan is an example of how European concepts of town planning were adopted and adjusted to local conditions and building traditions in this remote mountain town.

Røros is also a well-preserved and exceptional example of the town communities that arose in conjunction with the high activity in ore mining in the 1600s to 1700s in Europe and the «new world» of South America. On account of the climate and the location, Røros represents the outer limits of what was possible at that time, and this is reflected in the building tradition.

Røros Mining Town is situated on a south-aligned slope surrounded by hills ascending to treeless mountain plains. The town is framed against this spectacular backdrop with the panorama of the mountains on all sides. The original plan of the town from the end of the 1600s is intact. After 1679 there have been no more fires, which is unusual for a town of wooden construction such as Røros. It is a completely preserved wooden town, and only the church is a masonry building. The original town structure is preserved with the residential houses with their interior courtyards clustered together along the streets. The building tradition is based on traditional wooden architecture with or without exterior panelling, and the form and details are typical of the region. The large number of well-preserved outbuildings with stables and cowsheds are a rarity and constitute a clear reminder of the miner's dual occupations – mining and farming.

Criterion (v)

(v) be an outstanding example of traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.

Røros Mining Town and the Circumference constitute a totality that is an outstanding example of traditional settlement and land-use. The various activities that have been carried out in the area constitute a cohesive and interdependent unit. These activities have shaped a cultural landscape that provides a unique picture of how the mines and the mining town functioned as a complex and at times vulnerable system that verged on the limits of what was possible in an inhospitable landscape with a harsh climate.

Today these cultural landscapes have been altered to some extent by the closure of mines and by changes to agriculture activities.

The outstanding universal value of Røros Mining Town and the Circumference is closely linked to the natural environment: the mountain plains, the cold climate, the copper ore, a network of lakes and rivers as well as long distances to harbours and large towns. This gave Røros its uniqueness, and formed the

background for the development of the cultural landscapes that were linked to Røros Mining Town and the copper works in different ways.

The industrial cultural landscapes are relict landscapes with traces of mining, smelters and other mining operations. They show traces of mining operations on the mountain plains throughout a period of 333 years in an outstanding manner. Since the end of mining operations, there has been no development pressure because the mining areas and the smelter at Femunden are located in mountain areas.

The urban agricultural landscape developed at the same time. The only form of agriculture possible in the cold climate was growing hay as fodder for livestock. The miner's family lived in town and kept their livestock there. Urban agriculture was composed of an intricate system of small plots on the outskirts of Røros Mining Town where grass was grown. The uncultivated land in the vicinity of the town and one or more summer grazing farms were also part of the resource base. In addition, haymaking and gathering reindeer lichen etc. were part of a totality that shows how the inhabitants used all the resources nature had to offer. Since the men worked at the copper works and were often away from home, the women, and sometimes the children, played an important role in these agricultural activities. At Røros the traces of this complex system are preserved almost in their entirety in the cultural landscape. Together they form a well-functioning system which is an outstanding example of a cultural landscape created by the arduous toil of the mining families.

3b Proposed Statement of Outstanding Universal Value

The Significance of Røros Mining Town and the Circumference

Introduction

Copper was a vitally important metal for the whole of Europe in the 1600s. It was used for the copper plating of roofs and hulls, for pots and pans and as an important ingredient in the production of bronze and brass. The metal was therefore in demand among Europe's warring powers who needed copper for their bronze cannons and brass for ship's equipment etc. This was the background for the establishment of a copper works in the Røros region despite the extreme conditions.

In its golden era in the 1700s, through its export to Amsterdam, Røros Copper Works was an important producer of copper in a European context. The copper works provided the Danish-Norwegian King in Copenhagen with much-needed capital through tithes and export duties. For the largest trading houses in Trondheim, Røros Copper Works was of fundamental importance, contributing as it did to their prosperity and thereby the prosperity of the town. Far and wide in these sparsely populated areas, the establishment of the copper works led to a total revolution in the lives and business activities of the inhabitants. The copper works influenced the entire surrounding area even far beyond the Circumference.

The mining town on the mountain plains

The cold climate and the remote location were factors that had to be considered by the copper works and the miners when Røros Mining Town was established with a smelter and mines on the mountain plains. From this starting point, a unique form of operations developed that is seen in the town itself, in the cultural landscape surrounding the town and in the industrial cultural landscape in the vicinity of the mines and smelters. The story of the struggle to survive through a long and harsh winter and back-breaking toil is illustrated in an outstanding manner by the town itself, by the cultural landscape surrounding the town and by the mines on the mountain plains. The stark, black slag heaps constitute a major component of the urban landscape, and the bare mountain plains that surround Røros are visible from all parts of the town. The Malmplassen square beside the smelting house is even today the heart of the town where

people meet. The miner's dual role as a miner and a farmer is shown in the town structure. Small farming properties with space for the livestock that helped to tide the mining families through the winter are concealed behind the street facades. Agriculture formed a much larger part of the work of the employees at the copper works than was usual at other mines.

Social conditions

There were clear class divisions in the community with the management of the copper works and the clerical workers forming an upper class. The miners were mainly self-employed, owning their own farming properties in the mining town and plots of land that they had cleared within the «free mining town». However this class division did not entail the establishment of separate areas with housing for the workers. Even though most of the spacious and impressive buildings are located on the main street, Bergmannsgata, the houses of ordinary miners adjoin them. This is unusual in comparison with other mining communities.

The employees of the copper works worked a five-day week so that they had time to devote to their own agricultural activities. In addition the copper works shut down for a month in the summer to allow the workers to carry out the harvesting. Nonetheless urban agriculture was primarily dominated by women. When the man in the family was at work in the mines, the women and children cared for the livestock.

Røros Mining Town as a Nordic town of wooden construction

Røros Mining Town is an outstanding example of a Nordic town of wooden construction. The traces of Baroque town planning with false perspectives and focal points combined with the building traditions of the region and the location of the town against the backdrop of the mountain plains ensure that the special features of the town distinguish it clearly from other towns constructed in wood in the Nordic countries. This also applies to other wooden towns on the World Heritage List in general.

Cultural landscapes

The cultural landscapes around Røros Mining Town show why the town was founded and how it functioned. Their importance lies in their relationship with Røros Mining Town, and they form an integral part of the totality. The miner's dual occupations, mining and farming, are clearly shown in the landscape by the numerous small hay sheds and plots of land that still demonstrate how this intermixture was conducted. The comprehensive system in operation to safeguard all the natural resources available is also seen in the cultural landscape further from the town centre with the summer grazing farms and the uncultivated land where hay and lichen, etc. were gathered. The proposed extension to the World Heritage Site around Røros Mining Town contains historic cultural landscapes that demonstrate with exceptional clarity how miners and other employees had to exploit all available natural resources in addition to their wages from the copper works in order to survive. No other mining town with its cultural landscape on the World Heritage List demonstrates such complete exploitation of such scanty resources.

The industrial landscape around the mines explains why Røros Mining Town was established. Even though the mining operations were not technologically innovative, the location of Røros on the mountain plains clearly attests to the extra burden added to the everyday drudgery miners in all countries suffered. The mining areas contain traces of 333 years of mining and a number of these areas have remained undisturbed since the end of mining operations. The location of Røros on the mountain plains also provides a special dimension that distinguishes it from mining areas in steep mountains (e.g. in South America)

The industrial cultural landscape at the Femundshytta smelter that is located in a remote and wild area characterizes the special features of the copper works' operations in that the widespread lack of firewood forced the copper works to establish smelters at an increasing distance from the mines in places where there was a ready supply of fuel. This area remains almost untouched after the closure of the smelter.

Transport

The enormous amount of transport is one of the special features of mining operations at Røros. Everything had to be brought in. The long winter meant that the most commonly used method of transport prior to the arrival of the railway was by sledge on frozen rivers and lakes. This was the usual method of transporting goods in areas where lakes and rivers freeze. The winter transport route from Tufsingdal via Korssjøen to Røros is the first of its kind on the World Heritage List.

The Buffer Zone

The buffer zone comprises cultural landscape that places Røros in a wider historical and functional setting with traces of several mines, smelters, charcoal burning, transport, agriculture, Sámi reindeer husbandry, etc. In combination, these support the outstanding universal value of the Property.

Proposed Statement of Outstanding Universal Value

The World Heritage Site Røros Mining Town and the Circumference comprises a unique mining town, established in 1646, built entirely of wood, and surrounded by a cultural landscape that shows in an outstanding and almost complete manner how the mining operations, transport and way of life had to be adapted to the requirements of the natural environment – the mountain plains, the cold climate, the remote location without roads and with marginal growth conditions for forests and agriculture. On this basis a unique culture developed that has disappeared in part, but outstanding testimony of its existence has been preserved.

3c Comparative analysis

When Røros was inscribed on the World Heritage List in 1980, the value of the town as both a mining town and a town of vernacular wooden construction was underlined. These aspects are still of importance for Røros Mining Town. However, since 1980 there has been a strengthening of the significance and the awareness of the industrial cultural heritage. In respect of technology Røros Copper Works was not a pioneer but imported proven technology and adapted this to the extreme requirements of the natural environment. The industrial cultural landscape with its ruined mines and smelters is now proposed included in the world heritage site – not because of technological innovations, but because the landscape explains why Røros Mining Town was established and provides the background for the development of the town. In this context the traces of other activities that explain how the town could function also constitute a significant part of world cultural heritage. The universal values of Røros Mining Town and the Circumference are rooted in the mining town as well as in the cultural landscape of the Circumference that together provide an almost complete picture of how the town functioned. This picture is characterized by the remote location and by the requirements of the natural environment with the mountain plains and the cold climate. The comparative studies carried out are restricted to mining towns where mines/cultural landscape comprise part of the world heritage site. The table below also provides a short description of the setting of the town in the landscape since this is of importance for the evaluation of Røros.

The universal value of Røros Mining Town also lies in its role as a representative of Nordic towns of wooden construction. Therefore a comparison with the Nordic towns of wooden construction that are inscribed on the World Heritage List has also been conducted.

Mining towns with a cultural landscape in Norway

In the 1600s and 1700s several ore mines were established in Norway (cf. 2b History). The Røros Copper Works was incontestably the most important of the copper works. Mining communities were also established at the other ore mines but it was only at the Kongsberg Silver Mines and the Røros Copper Works that towns grew up.

Kongsberg and the Silver Mines

Kongsberg mining town was founded in connection with the discovery of silver in 1623, and the town grew up round the smelter at Nybrufossen. The King owned the silver mines, which constitutes a difference between the two towns from the very start. German miners and management remained for a longer period of time, and their presence was more widespread than was the case in Røros. Kongsberg developed as a centre for mining management and education in Norway. The town is also of wooden construction with a brick masonry church from 1761. Public buildings are larger than in Røros and are separated from the miners' dwellings. Kongsberg possesses many well-preserved individual buildings but as a totality Røros is more unified and is preserved with greater integrity. Røros also appears more solid and forceful as a mining town with Malmplassen square as the central meeting place and the slag heaps forming part of the townscape. Kongsberg, which is surrounded by forests and is located at a lower altitude, also lies further south in a milder climate. This gives the town a completely different character.

The mines at Kongsberg were technically more difficult to operate, and today they appear to represent a greater feat of engineering than the mines at Røros. The industrial landscape is well-preserved as a relict cultural landscape. The traces of urban agriculture (the miner's cultural landscape) have almost disappeared at Kongsberg, but have been preserved in a unique manner in immediate contact with the mining town at Røros. The entire system of functions linked to mining, transport and people's ability to survive in a hostile environment and cold climate is much more visible at Røros.

Mining towns with cultural landscape on the World Heritage List compared to Røros

World Heritage Site	Centuries	Metal	Criteria	Principal differences
Røros Mining Town and the Circumference	**17th – 20th**	**Copper**	**iii, iv, v**	
Mining Area of the Great Copper Mountain in Falun Sweden	12th - 21th	Copper	ii, iii,v	Town: Masonry and wood, larger. Mines: Bigger, technologically important, mining over a longer period. Landscape: Lowland
Mines of Rammelsberg and Historic Town of Goslar Germany	9th - 20th	Copper Silver Lead	i, iv	Town: Older, timber frame construction, bigger. Mining: over a longer period, technologically important.
Blaenavon Industrial Landscape, UK	19th - 20th	Coal Iron	iii, iv	Town: Later period, masonry. Mines: Later period. Landscape: Lowland.
Cornwall and West Devon Mining Landscape, UK	18th - 20th	Copper Tin Arsenic	ii, iii, iv	Mines: Important steam technology. Several towns: Masonry. Landscape: Lowland, partly by the sea.
Historic Town of Banská Stiavnica and Technical Monuments in its vicinity, Slovakia	Medieval - 19th	Silver Gold	iv, v	Town: Medieval, Central European Renaissance, masonry. Landscape: Wooded hills.
City of Potosi Bolivia	16th - 18th	Silver	ii, iv, vi	Town: Masonry, bigger, richer, Spanish colonial. Mines: More extensive. Landscape: High mountains.

World Heritage Site	Centuries	Metal	Criteria	Principal differences
Røros Mining Town and the Circumference	**17th – 20th**	**Copper**	**iii, iv, v**	
Historic Town of Guanajuato and Adjacent Mines Mexico	16th	Silver	i,ii,iv,vi	Town: Masonry, bigger, Spanish colonial baroque. Mines: More extensive Landscape: High mountains.
Iwami Ginzan Silver Mine and its Cultural Landscape, Japan	16th - 20th	Silver	ii,iii,v	Towns: 3 port towns + settlements: Partly wood. Japanese vernacular. Landscape: Wooded hills by the sea.

Of the mining towns with cultural landscape in the comparison, Falun is clearly the town that has most in common with Røros Mining Town and the Circumference. Therefore a closer comparison between Røros and Falun is given below. All the European mining towns and cultural landscapes are located in the lowlands, and the same applies to Iwami Ginzan in Japan. Consequently freezing temperatures, extreme cold and the struggle to acquire sufficient food for people and livestock do not form part of their history to the same degree as at Røros. The two mines in South America are in part situated in very high mountains but further south in latitude. They represent a different culture based on the Spanish conquistadors' colonisation and exploitation of the riches of the new world – silver and gold. Both are larger and appear to have been far wealthier communities.

Mining Area of the Great Copper Mountain in Falun

The extraction of copper has taken place in Falun since 700 to 800 AD. In the 1600s, Falun was Europe's largest and most important producer of copper, also in respect of the technology used. Today the «Great Pit», the enormous mine that caved in in 1687, is the centre of the World Heritage Site. The mining town of Falun, which was established in accordance with the 1646 plan, adjoins this as a buffer zone. The town is larger than Røros, and the central parts of the town are built of masonry. However, in the districts where the miners lived, the buildings are of timber log construction. The cultural landscape surrounding Falun is marked by traces of copper production with numerous mines, smelters, slag heaps, roads, canals, small mining communities and manor houses. Many of the same elements are to be found in Røros Mining Town and the Circumference, but Røros and the mining operations there date from a more recent period of time and are much smaller than those in Falun. Røros Mining Town conveys a strikingly different impression due to its location set against the backdrop of the mountain plains, with the stark, black slag heaps as a key component of the townscape, the wooden houses, the small plots of the miners with their hay sheds that are preserved close to the town centre, and the entire spectrum of traces that demonstrate the struggle for survival in a remote town in meagre natural conditions and a cold climate.

Over the centuries there have been close ties between Falun and Røros. Linnévägen in Falun forms part of the World Heritage Site. This road was named after Carl von Linné who in 1734 travelled along it on the way to Røros. The winter transport route from Falun to Røros crosses into the Circumference at Tufsingdal.

Towns of wooden construction

Wood was the most common building material in the densely forested Nordic countries of Finland, Sweden and Norway. The buildings were erected mainly as timber log constructions with or without exterior wooden panelling. The same building technique is to be found in many parts of Russia and in the east of Europe, although the style differs. In North America there are also a number of towns of wooden construction with a predominantly English-influenced form. In the three Nordic countries, a large number of towns have been preserved that are entirely built of wood or contain large areas with

houses of wooden construction. In the 1970s, a large project was initiated by ICOMOS for the registration of wooden towns in the Nordic countries – «Den nordiska Trästaden». The documentation led to increased awareness of the value of these towns. The project overview revealed that in these three countries there are approximately 90 towns that are built entirely of wood or that have large areas with old wooden houses.

Nordic towns of wooden construction on the World Heritage List

The typology of the Nordic towns of wooden construction (criterion (iv)) is first and foremost represented by Old Rauma in Finland. Another Nordic town of wooden construction on the World Heritage List is the Church Village of Gammelstad, Luleå, in Sweden. In Falun there are also districts comprising wooden houses, although this has not been focused on as typologically representative of the Nordic towns of wooden construction under criterion (iv) in the nomination documents. (Cf. comparison above).

Old Rauma, Finland, is a port and a commercial and religious centre that grew up around a medieval monastery. The town is situated on flat terrain. Rauma burned in the 1600s and today is primarily characterized by buildings from the 1700s and 1800s. Even although most of the buildings preserved are contemporary with those at Røros, the two towns are distinguished by different regional building traditions. Moreover, the background for the founding of the town, the location and the function differ, and this has created two completely different towns.

The Church Village of Gammelstad, Luleå, Sweden, consists of rows of small wooden buildings that surround the big stone church from the early 1400s. The buildings were used for overnight accommodation for travellers from the neighbouring villages in connection with church services and religious festivals. The long distances and the cold climate made it difficult for churchgoers to travel home the same day. The town was not used for permanent habitation and therefore did not have all the functions of a town. Thus it differs completely from fully functioning towns such as Rauma and Røros.

Other towns of wooden construction on the World Heritage List

The Old Town Lunenburg, Nova Scotia, Canada, represents a planned British colonial settlement in North America. The buildings are built using the coulisse construction technique with exterior panelling, the oldest dating from the 1700s. The style is English-influenced but the English stone architecture style has been recreated in wood. The town is on the coast, and fishing and shipbuilding have become the main industries. The manner of construction and the style of the buildings, as well as the location and industrial foundation of the town, distinguish it from Røros.

Sewell Mining Town, Chile, is located in the Andes mountain range at an altitude of 2000 metres above sea level and is a «company town» built from 1905 onwards to house workers at the copper mines. The copper mines, which became the world's largest underground copper mines and are still operational, are not included in the nomination. The town is located on a mountain slope so steep that the streets are flights of steps and the buildings are constructed on wooden platforms. The social hierarchy in the mining community is clearly seen in the buildings of the town. At its peak the town had 15,000 inhabitants. In respect of the dating, construction, layout, size, location and social history, Sewell is a different kind of wooden town from Røros. Sewell represents the 20th century company town and the establishment of a financially strong industry, while Røros primarily represents the pre-industrial mining town that was initially a company town. Though separated by a span of 250 years, both towns were founded on mining operations, financed by foreign investment, in a remote and hostile environment.

3d Integrity and authenticity

This section should be seen in connection with Section 4, *State of Conservation and factors affecting the Property.*

Integrity

The Town and Cultural Landscapes

Røros Mining Town has been preserved with a high degree of integrity. The old town plan from the 17th century has been preserved completely and with no change since the new church was finished in 1784. The wooden buildings and the large white masonry church still dominate the townscape and stand in strong contrast to the black slag heaps. Malmplassen square, where the copper ore was brought in from the mines, is still the centre of the town. Even today these features characterise Røros as a mining town. The dual occupation of the inhabitants as employees of the copper works and farmers is still evident in the town where outbuildings built for domestic animals hide in the courtyards behind the facades of the houses.

With the proposed extension of the Property, the setting of the town is included in the world heritage site. The visual connection between the town and the deforested mountain plains has been preserved, with the presence of the mountains representing a major feature in the townscape.

Due to the operations of the copper works, the hillsides around the Mining Town were deforested by the beginning of the 18th century. Today low birch trees are re-establishing themselves in uncultivated areas. Overgrowth is a general problem, but at the same time it is a natural process that can only be prevented by active farming and by special arrangements for selected areas. There are several redundant farms within the Property, but their fields are cultivated and mowed by the remaining farmers and by farmers from the Buffer Zone. In this way the integrity of the agricultural landscape is retained as a «continuous landscape».

The intention of the proposed extension to the present world heritage site is to place the Property in a wider historical and functional context. The extension includes different cultural landscapes that explain why the mining town was established and how it was able to function in the harsh climate and in its remote position.

The cultural landscape created by urban agriculture is located close to the town. This is the landscape of the miner/farmer. The small plots of land with hay sheds are a prominent and outstanding feature of the landscape surrounding the town. Local farmers mow these areas according to special arrangements with the municipal conservation officer. The hay sheds are now part of a conservation project: the Outbuildings Project. The extent of areas of this kind of landscape has been somewhat reduced in the 20th century, and the subdivision into plots has not been completely preserved in all areas. However, its importance for the story of Røros Mining Town and its inhabitants is now fully accepted.

Røros Mining Town is a living town that has developed slowly over more than 300 years. In the 20th century an industrial area was built on the flat area below the old town. After World War II the pace of change increased in Røros – as in most European towns. Residential areas were built on the fringes of the old town centre, areas that are appropriately situated in the landscape. The new houses are all built of wood, and continue the wood-building tradition of Norway. Railways, roads and a small airport made their impact on the surrounding landscape from 1877 onwards. These and other forms of infrastructure are part of the history and natural development of a living town. Altogether the new constructions are generally compatible and do not detract from the overall integrity of the town and the surrounding landscape.

The mines at Storwartz and the Nordgruvefeltet are relict cultural industrial landscapes that contain buildings, technical installations, ruins and traces of 333 years of mining and transport. The mines were left when mining operations ceased in connection with the bankruptcy of Røros Copper Works in 1977, and because of their location in the mountains there was no development pressure on the sites. Storwartz, Christianus Sextus and the Muggruva mines have been left more or less untouched since mining ceased. A small museum has been erected over the entrance shaft to the mine at Olavsgruva, open to visitors and forming part of the Storwartz mining field. At the King's Mine extensive measures have been implemented to prevent polluted water from entering the rivers. Apart from this no new constructions have been erected in these areas.

As relict industrial landscapes, the Storwartz and Nordgruvefeltet mining areas together with the surrounding mountainous landscape constitute areas with a high degree of integrity that illustrate both mining operations over a long period and different ways of closing down mines.

Femundshytta

Femundshytta is a relict industrial cultural landscape with ruins and traces of the smelter and the settlements that were established in connection with the smelting operations between 1743 and 1842. When the smelter closed down after about a hundred years, the area was abandoned – with the exception of one farm which is still preserved. The area was remote and uninhabited in the 18th century, and the feeling of remoteness and untouched nature is still strong today. The traces of the industrial activities together with the natural beauty of the site continue to convey an impression of what it must have been like to settle and work in this wilderness. As a relict industrial cultural landscape Femundshytta has been preserved with the highest degree of integrity.

The Winter Transport Route

The winter transport routes on frozen lakes and rivers leave few traces in the landscape. The question of their integrity becomes an issue of the integrity of both the route and the surrounding landscape together. The Winter Transport Route from Tufsingdal to Røros has been preserved in its entirety and passes over lakes and through areas that have been subject to only minor encroachments. It still conveys the struggle of the travellers in the lonely and remote area where only the Holla and Korssjøen farms provided accommodation and rest for people and their animals.

The Buffer Zone

The Buffer Zone contains the administrative centres of Tolga, Os and Holtålen municipalities with their shops and modern residential areas. However, there is also a large number of cultural heritage sites connected to Røros Copper Works in the Buffer Zone (cf. Annex 1 Maps: Areas in the Buffer Zone particularly influenced by Røros Copper Works). The degree of integrity of the areas with cultural heritage connected to the copper works varies somewhat. Besides these there are the two large national parks, Femundsmarka and Forollhogna, as well as protected landscapes and other cultural landscapes of national importance within the Buffer Zone.

Authenticity

Røros Mining Town has been recognised as cultural heritage since the 1930s. Central cultural heritage authorities, and later regional authorities, have given priority to repairing and conserving the town for almost 70 years. During this period the ideology of conservation has changed in many ways, with the importance of authenticity in materials becoming particularly prominent after World War II. This manifested itself strongly in the Venice Charter (ICOMOS 1964). Different aspects have subsequently been added to the concept of authenticity and have made it more complex. The Operational Guidelines to the World Heritage Convention, Section II E, sum up the present content of the concept.

Røros Mining Town has been preserved with a high degree of integrity as a whole. However, the situation is more complex when it comes to the authenticity of the individual buildings. The town has developed

for more than 300 years, and over these years small single-storey buildings have been extended, new stories have been added, some of them have had panelling installed etc. Nonetheless, the buildings are still considered «authentic». In the description below we have chosen to consider what has happened to the town for the last 70 years, i.e. the period after which it was recognised as cultural heritage and the conservation authorities became involved in its management.

Form and design

The old town plan has been completely preserved. Restoration work started 70 years ago with the buildings along the main streets. The timber log core of these buildings has been preserved, thus retaining their size and form. Similarly the design has also in general been retained, although there are examples where the architectural details of the buildings have been made to look older than they originally were. Typically the panelling and details in the «Swiss style» from the late 19th and early 20th centuries were replaced by details that belonged to an earlier period (cf. Section 2b History and Development)

Materials and substances

In the areas outside the two main streets most of the buildings have been preserved with their architectural details, i.e. with no renewal of materials. All over the town the outbuildings in the courtyards have been preserved with a high degree of authenticity. When they were no longer used for domestic animals they were allowed to remain as they were. Although they were not given priority in the first period of restoration, today they are the most authentic buildings in Røros. They are now being repaired through the Outbuildings Project, which practises «soft conservation» strictly. As little of the wood work as possible is being replaced, and the repair work is being carried out according to traditional methods. Some of the best restoration craftsmen in the country are working on the project (cf. Section 5 e Property management plan and 5 g Sources of expertise and training.) The hay sheds and summer grazing farms in the urban agriculture cultural landscape are in the same position and are also included in the project. The only monumental building in Røros, the church, has been preserved with a very high degree of authenticity in both its exterior and interior where the original painted surfaces are intact.

Use and function

Most of the buildings in the town are residential. Kjerkgata and the lower part of Bergmannsgata have shops on the ground floor. This reflects the use from the middle of the 19th century onwards. However, the outbuildings in the courtyards no longer contain domestic animals, and the owners use most of them for storage.

Traditions, techniques and management systems

In the beginning Røros was a «company town» and the copper works were responsible for organising everything from work, transport and food supplies to schools and a few social services. This part of the copper works' responsibility has long ago been taken over by the municipality. The copper works no longer exist. There are now only a few people left in Røros who are familiar with the techniques of mining and smelting to produce copper.

Location and setting

Cf. Above: **Integrity**

Intangible heritage

Røros is rich in intangible heritage. The dialect is alive and is spoken by the local people. Place names and family names are reminders of the former mining activities. The tradition of the Røros pols dance remains strong and is still practised by fiddlers and folk-dancers even beyond Røros. The old traditional winter fair is a great event every year in February. Through their works the author Johan Falkberget and the painter Harald Solberg have contributed to making Røros part of the Norwegian identity (cf. Section 2b History)

Spirit and feeling

The spirit of Røros as a mining town is well preserved and present even today. This is probably due to the prominent position of the large black slag heaps in the town and the importance of Malmplassen square in front of the former smelting house. This where the copper ore was brought and weighed. Today it is a meeting place and the centre for local events.

Røros is a living town that is still developing slowly. Yet when all the aspects of the concept of authenticity are combined and all the buildings and the setting are seen as a whole, Røros Mining Town possesses a high degree of authenticity. Through its almost 30 years on the World Heritage List the Outstanding Universal Value of the town has remained intact and the extension of the site will support and strengthen this value.

For the cultural landscapes within the Property the concept of authenticity is not considered relevant. These are dealt with above, cf. **Integrity**.

4 State of Conservation and factors affecting the Property

4a Present state of conservation

Town and Cultural Landscapes

State of Conservation in the present World Heritage Site

In the nomination document from 1978, the State Party described the State of Conservation of Røros in the following manner:

> *The most acute danger has arisen through the cessation of the Copperworks, since larger or smaller portions of its property may go astray, at least from a cultural preservation standpoint. Building condition ranges from very good to bad. The latter holds true first and foremost for a number of outbuildings which are no longer used and are therefore in danger of being torn down.*

There have been many developments since Røros was inscribed on the World Heritage List, and the situation with regard to the buildings found inside the existing world heritage area has been improved. In the state budget for 1979, the Storting (Norwegian Parliament) granted extraordinary funds for «the acquisition of cultural heritage sites at Røros» (Proposition no. 39 (1979-1980) to the Storting). The government purchased Malmplassen square and the slagheaps with adjacent buildings, as well as the Storwartz mining field, from the assets of the bankrupt Røros Copper Works. The Ministry of the Environment acts as owner of these properties on behalf of the government, and the Directorate for Cultural Heritage is responsible for their management. At the same time, the Storting endorsed a local initiative to establish a museum at Malmplassen square to preserve and maintain the cultural heritage sites acquired from the bankrupt copper works. Røros Museum currently operates the sites at Malmplassen square and in the Storwartz area, including the Olavsgruva mine which is open to visitors. The buildings left by Røros Copper Works inside the existing world heritage area are currently in a fairly good state of repair. In addition, major repair and maintenance work has been undertaken on the timbered embankment walls beside the smelter.

The problems associated with the preservation of the outbuildings were not addressed until later. These houses were in disrepair, but they also had a greater degree of authenticity than many of the residential buildings and were therefore of prominent historic interest. During 1994-95 a registration and an assessment of the condition of the outbuildings located within the world heritage area were undertaken. Approximately 460 outbuildings were registered, and a project was launched for the repair and maintenance of these buildings. To date, well over 200 of these have been restored. The site owners cover 20 per cent of the costs, the municipality contributes 15 per cent, and the government/Directorate for Cultural Heritage 65 per cent. The project has been prolonged, and has gradually come to include outbuildings within the area proposed for extension of the World Heritage Site.

The only monumental building at Røros, the church, has undergone two major rounds of repair and restoration work at an interval of approximately fifty years. Recent investigations show that renewed repair and maintenance work is required on a major scale. This work has started, and the church will be closed for a period of two years from 1 November 2008 to allow for the extensive restoration of the foundations and the interior.

The listed buildings

The state of repair of the listed buildings inside the nominated world heritage site has been reviewed in the context of a nationwide project (cf. Section 6 c: Results of previous reporting exercises). The investigation shows that the buildings are in good condition, well above the national average.

The cultural landscape around the old urban centre

The proposed extension applies to the cultural landscape and the entire landscape space in which the town is located. After the smelting house closed and the emissions of toxic sulphuric fumes ceased, the character of the landscape has gradually changed. At the same time, animal husbandry involving grazing animals has declined considerably, and the climate has become slightly milder. The formerly open, deforested landscape around Røros town is currently in the process of becoming overgrown. This development is to some extent limited by active agriculture. The cultural landscape of the urban agriculture, with its small land plots and hay sheds, has been deemed to have sufficient importance to warrant special efforts to keep these areas open. Today, the subdivision of the land plots in the Småsetran district is well preserved. Other parts of the cultural landscape surrounding the town are more characterized by modern farming methods, but even here the hay sheds have largely been preserved. These buildings are in varying states of repair, and their ownership is often complicated or unclear. The Outbuildings Project has also initiated restoration work on some of these.

Today, Røros is a living town with more recent areas of industrial, trade and residential construction, public institutions and an airport. The more recent buildings have mostly been appropriately placed in the terrain with a view to preserving the unity and integrity of the town.

The Storwartz and Nordgruvefeltet mining fields

The mining fields constitute industrial, relict cultural landscapes, which also comprise a number of buildings and technical installations (Cf. Section 2a: Description). The areas have developed, and show traces from 333 years of mining activities. These have been left more or less intact since the operations ceased.

The houses in the mining fields are mainly in good condition, while the technical installations are in varying states of repair. The cableway between the Olavsgruva and Storwartz mines has been restored, but there is a need for repair and maintenance work on the flotation plant, which forms one of the end points of the cableway.

In the Muggruva mine, the remains of the only remaining waterwheel are still located inside the mineshaft, but they are in a very poor condition. At the Christianus Sextus mine, the cableway station is in a bad state of disrepair. Inside the world heritage area we also find the Kuråsfossen power station, which is in an excellent condition.

Pollution

The Norwegian Institute for Water Research (NIVA) has surveyed the situation with regard to pollution around nearly all the mines and smelters inside the Circumference. The analysed material has been compiled into a database. The pollution problems are associated with run-off containing heavy metals caused by the weathering of sulphide minerals, with subsequent leaching of elements liberated by the weathering process. The sources are found in the rock piles, ground-up tailings from the flotation process, mineshafts and polluted ground water near the smelting houses. Based on the evaluations carried out by NIVA, various measures have been undertaken around the various mines. In weighing the considerations for reducing pollution and preserving cultural heritage values it has been accepted, for example at Storwartz, that no measures should be taken that disturb the cultural heritage values. At the King's Mine, on the other hand, the rock piles have been covered and the tailings pond reinforced to prevent it from sliding and thereby causing problems for the situation in the Orva river and further down to the Glomma river.

In their present state, the mines at the Storwartz and Nordgruvefeltet mining fields constitute interesting examples of the different methods used to prevent the pollution of waterways when mining operations are wound up.

The Femundshytta smelter
The Femundhytta is an industrial, relict cultural landscape, and the smelting house is a total ruin. The area contains a number of traces from the former activities. Partial overgrowth by birch shrub renders it difficult to «read» parts of the site. Otherwise the site with its ruins lies almost untouched in a wide sweep of natural landscape.

The Winter Transport Route
This transport route passes through cultural landscapes and areas of natural environment that have been subject to only minor encroachment. The condition of the buildings on the large farms that provided stables and accommodation for travellers varies.

4b Factors affecting the Property

(i) Development pressures
Today, Røros Mining Town is a living town with manufacturing and tourism as its main industries. The town is therefore set to develop further.

Inside the existing world heritage area the pressure for further development is negligible to moderate. To the extent that such pressure exists, it is associated with requests to put the outbuildings to new uses. The outbuildings are carriers of a significant part of the historical content of Røros Mining Town and are especially valuable in the world heritage context.

The population of Røros municipality has increased moderately over recent years, and this has entailed a degree of pressure on the areas located on the fringes of the old town centre and on the cultivated land in the vicinity. The municipal land-use plan shows, however, that the need for new industrial and residential areas can be met without jeopardizing the outstanding universal value of the Property. The proposed extension of the World Heritage Site will serve to enhance the general awareness of the importance of the location of the old mining town in the landscape and will contribute to improving the adaptation of new projects to the surroundings.

Year-round use of residential housing in Røros town centre
In order to ensure permanent settlement and counteract the tendency for buildings to be purchased and used as holiday homes, the authorities are empowered to impose the obligation of residence pursuant to the Concession Act. In 1975 Røros municipality introduced the obligation of residence for the town centre, in accordance with Sections 7-1 and 7-2 of the Concession Act. The provisions for the obligation of residence as set forth by the Act are strictly enforced, although the Act allows for exemption in the case of direct inheritance or inheritance in the first collateral line. Some houses are therefore not occupied all year round, but this has not been deemed to be serious with regard to the town centre as a whole.

Trade development in Røros town centre
Over time, Røros has seen a rather weak development of its retail trade sector, and has consequently received applications for the establishment of shopping centres outside the historic urban core. In the longer term this development will serve to weaken the urban core as a centre for trade for the local inhabitants, and this is considered to be undesirable. A project has been launched with government support with a view to promoting and developing the town as a centre for local trade. A comprehensive survey has determined that the town has a potential for such development.

The area south of the railway line adjacent to Røros town centre

This long-established manufacturing area has for a prolonged period undergone restructuring, but with no unified plan. Efforts have been initiated to clarify the future use of this district and to ensure a design that supports the historical centre.

New residential housing

Plans have been submitted for the establishment of a new residential area in the Gjøsvikmoen district to the south-east of Røros town centre. This may entail a conflict with the natural environment/landscape assets located along the permanently protected Hådalsvassdraget watercourse. It could also entail consequences for the effect of the outstanding universal value of the Property in the form of winter routes and old dam constructions in the landscape.

The airport – safety zone and extension of the runway

The airport is located at the bottom of the bowl-shaped landscape surrounding Røros Mining Town, in former marshland which previously served as the main source of peat. In recent years the safety requirements for airports have been made more stringent. As a consequence, a safety zone must be established around the airstrip. In this context, parts of an old road must be reconstructed, but its former alignment will be left in the landscape even though it will no longer be used. No construction is allowed inside the safety zone, but the landscape can still be maintained with traditional methods, and the consequences of the safety zone are consequently deemed to be negligible with regard to the outstanding universal value of the Property.

Today, there is only one daily arrival and departure by a small aircraft (Dash 8 – 110/300) from the airport. In addition, the airport is used by sports aircraft. The municipality wishes to extend the runway to allow the airport to receive larger charter aircraft. The consequences have so far not been analysed, but the request will be processed pursuant to the Planning and Building Act when/if the case is submitted.

Holiday homes

Because of a prolonged period of economic prosperity for the population in general, there has been an increase in the number of requests for the construction of holiday homes. In addition, the demands for levels of comfort in holiday homes have been raised to equal those found in all-year residential housing. The establishment of an area for the construction of holiday homes may therefore appear as a major encroachment in the landscape. In the most sensitive areas near Røros Mining Town, for example at Hanesåsen and near Lake Hittersjøen, the municipality has regulated this construction activity in an appropriate manner. Currently (2008) one of the landowners in the Sundet district wishes to develop an extensive area for the construction of holiday homes, and is undertaking planning work to this end. The preliminary plans will entail a clear conflict with the outstanding universal value of the cultural landscape. This development project will require the formulation of a zoning plan, and proceedings pursuant to the Planning and Building Act will serve to protect the outstanding universal value of the Property.

In addition, there is general pressure for the construction of holiday homes inside the Property and in the Buffer Zone. The holiday homes are part of the economic basis of the municipalities. The construction work itself, and the subsequent demand for services and goods that these holiday homes generate, have positive financial effects. Through the application of the Planning and Building Act, the municipalities, the county authorities and the government will ensure proper consideration of the outstanding universal value of the Property.

Abandonment of farms, depopulation, overgrowth

The agriculture found inside the Property and in parts of the Buffer Zone is of a marginal nature. Permanent closure threatens the most marginal areas, an alternative that may be particularly relevant on the occasion of a generation shift. In addition, major restructuring of agriculture has been undertaken,

causing the summer grazing farms to fall into disuse. These development trends have entailed major consequences for the cultural landscape. With the absence of grazing animals or regular mowing the landscape gradually becomes overgrown. Old trails disappear in the undergrowth, and disused buildings decay. The causes of this development are found in domestic as well as international agricultural policies. These trends can be counteracted to some extent by the implementation of special measures. To improve the profitability of small farm units, domestic agricultural policies currently reward the development of local niche products that are distinctive and of high quality, and promote ecological farming methods. At the same time «locally made food» has become a badge of honour. Farmers and food producers in the Røros region are active in this field. The Røros cattle and the Sámi reindeer husbandry provide key raw materials for the development of first-class local specialities.

Farming methods have been developed to facilitate the maintenance of the cultural landscape around Røros Mining Town. In the Buffer Zone, extraordinary governmental funding is granted for the traditional mowing of uncultivated meadows in the Sølendet nature reserve.

The Femundshytta smelter and The Winter Transport Route are located in ANR areas (areas designated for agriculture, natural environments and recreational purposes in the municipal land-use plan). Both these areas are unpopulated or only very sparsely populated. Depopulation constitutes the major threat to the maintenance of these cultural landscapes.

(ii) Environmental pressures

A milder climate has caused overgrowth to accelerate, and birch shrub can currently be observed higher up on the mountainsides than previously. This overgrowth is considered to be unfortunate, for the industrial as well as the agrarian cultural landscape, and measures have been initiated to counteract it in certain selected locations.

Climate change could also entail more attacks by pests on the woodwork in buildings and architectural details.

(iii) Natural disasters and risk preparedness

Spring floods caused by heavy snowfall, quick thaws and large amounts of precipitation could be a threat to the wooden houses in the mining town. In 1934 a flood caused major damage to the houses and constructions along the Hitterelva river. Following this incident, a reinforced embankment was constructed in stone and timber along the section of the river where it runs through the town. However, a similar or larger flood could still be critical.

Lightning may cause fires. Almost all the buildings in Røros Mining Town and the Circumference are made of wood, and fires – irrespective of their cause – may develop into a disaster. In a densely clustered group of wooden houses like Røros Mining Town, the possibility of fires represents the worst-case scenario for the population as well as the authorities at all levels.

Fire safety

Since the 1980s the Directorate for Cultural Heritage and the municipality have made systematic efforts to protect the mining town from fires. These efforts have included various types of measures aiming to maximise safety with a minimum amount of intrusion in the valuable buildings. In the period 2003-2008 a new project for improving fire safety was implemented with funding from the Ministry of the Environment/the Directorate for Cultural Heritage, the UNI foundation and Røros municipality. The project has entailed no cost to the house owners. Modern technology for the early detection of fires has been put to use, including the installation of 1200 wireless sensors for the detection of unusual smoke or heat in a total of 200 properties. In addition a heat-seeking camera mounted in the church spire monitors the entire urban core to detect irregular heat. Both these installations are monitored from a central location that

immediately notifies the fire station. In addition, low-pressure water mist systems have been installed in all lofts in the wooden housing, hydrants are placed in the streets, and some buildings are protected by fire sprinkler systems. These measures have been combined with comprehensive information to the occupants.

(iv) Visitor/tourism pressures

Town and cultural landscapes

A rough estimate indicates that Røros Mining Town receives one million visitors per year. The peak seasons are July, Easter and February at the time of the winter fair. Røros has a longer tourist season than many other destinations in Norway, and this serves to spread the number of visitors over a longer period. Summer, early autumn and winter bring many visitors, while late autumn and early spring are low seasons.

The town has several small hotels in the old urban core and two larger ones at its outskirts. In addition, a number of smaller guest houses and cabins are found in the area surrounding the town. The number of visitors is currently not considered to represent a problem with regard to wear and tear on the cultural environment. In the main streets a certain change in trade patterns can be observed, from mainly targeting the local population to focusing on the tourists. If this trend continues, Røros may easily appear as «touristified» in the future. (Cf. above, the section on Trade development in Røros town centre.)

	Number of guest days 2007
Hotels	Approx. 115 000
Motels/guest houses	Approx. 5 000

Femundshytta

Visitors are taken to Femundshytta by the 100-year-old boat «MS Fæmund II» that crosses the lake during the summer season. Only the owner/operator of the Femundshytten farm has uses the road. The number of visitors is therefore very limited. A small part of the area however, the so-called «Playtown», is a highly vulnerable site that may easily be damaged if visitors fail to tread carefully. The implementation of special measures has so far been deemed unnecessary, although the development will be monitored.

The number of registered visitors who bought food at the farm amounted to approximately 2000 (in 2007). The number of visitors has increased slowly from approximately 1800 registered guests in 2002.

(v) Number of inhabitants within the Property and the Buffer Zone

Municipality	Total number in the municipality	Total number in the world heritage area	Total number in the Buffer Zone
Tolga	1700	No world heritage site in the municipality	1600
Os	2080	None in the Winter Transport Route	2080
Engerdal	1455	2 at Femundshytta	2
Holtålen	2070	0 in the Town and Cultural Landscape (Muggruva mine)	1210
Røros	5670	Approx. 3000 in the Town and Cultural Landscape	2670
Total	**3002**		**7562**

5 Protection and Management of the Property

5a Ownership

Town and Cultural Landscape
Most of the area is privately owned. Some important sites are owned by the municipality. On the occasion of the bankruptcy of Røros Copper Works in 1977, the government purchased Malmplassen square with the smelting house, buildings and the slagheaps, as well as the Storwartz mining field. (Cf. section 2b History and Development).

Femundshytta smelter
The industrial cultural landscape is privately owned, and forms part of the only farm on the site.

The Winter Transport Route
The Winter Transport Route from Tufsingdal valley to Røros town passes mainly over lakes that are located on government-owned land. The route also passes over some privately owned ground.

The Buffer Zone
The buffer zone comprises large mountain areas that are government-owned or locally-owned common land. The other areas are mostly privately owned.

5b Protective designation

The most prominent legislative act in terms of the management of the world heritage site in a general perspective is the Planning and Building Act. Major amendments to this act have recently been adopted, to enter into force from 1 July 2009. The amended act comprises a number of new opportunities that can be used in efforts to safeguard the outstanding universal value of the Property, but at the present time the provisions in the existing act remain in force.

In addition there are some special laws, the Cultural Heritage Act and the Nature Conservation Act, which also provide opportunities for the protection of cultural landscapes and cultural heritage sites as well as a number of other special statutes.

The Planning and Building Act of 14 June 1985

This Act applies to the Property and the buffer zone, and is the most prominent statute for ensuring comprehensive protection of the outstanding universal values.

The most prominent sections for management of the World Heritage Sites are:

- Section 19 County-level planning
- Section 20 Municipal-level planning
- Section 25-6 Zoning provisions for conservation areas
- Section 74-2 Planning solutions and appearance (the «aesthetic requirements» section)
- Section 92 Municipal responsibilities to safeguard the historic, architectural and cultural value of buildings when making changes to their exterior
- Section 93 Projects requiring application or permission

The Act strongly emphasizes early involvement in order to safeguard cultural and natural values in an appropriate manner. If a superior level of authority decides that the municipality has failed to address national cultural heritage interests in its planning process, it can raise objections to the plan. In this situation, the matter must be finally settled by the Ministry of the Environment. This provision acts as a safeguard to ensure appropriate consideration of the outstanding universal value of the Property.

Planning status for the Town and Cultural Landscapes

Land-use plan for Røros town centre (1994)

The fringe areas of the town are covered by the «Land-Use Plan for Røros Town Centre», adopted in 1994. This plan designates these areas for purposes of agriculture, natural environment and recreation, and has thereby been a key instrument for the preservation of the outstanding universal value in the area.

Conservation area plan for Røros town centre (1976-81)

The centre of Røros with its wooden houses is currently managed in accordance with four zoning plans with common provisions that were approved in 1980. The plans are based on Section 25-6 of the Planning and Building Act, Special areas, and its main purpose is to preserve the area as a monument of cultural history (conservation area). The zoning plans comprise strict regulations pertaining to the preservation of buildings and street patterns. The plans have proven to be an appropriate instrument for the conservation of world heritage values since the nomination in 1980.

Conservation area plan for the Småsetran area, with maintenance plan (1989)

Inside the proposed extension of the world heritage area, the zoning plan for the Småsetran area from 1989 is in effect, with an appurtenant maintenance plan. The plan is one of very few governmental zoning plans adopted in accordance with Section 25-6 of the Planning and Building Act for purposes of protecting cultural and natural heritage. The plan is an appropriate management document for the preservation of the world heritage values in the Småsetran area.

Regulated recreational area along the Hitterelva river from Malmplassen square to Sjøbakken

The area on both sides of the Hitterelva river between Malmplassen square and Sjøbakken is regulated as a recreational area. This implies a general ban on any construction, with the exception of the facilitation of recreational activities.

ANR areas – agricultural areas, areas of natural environment and recreational areas

The Storwartz field and the Nordgruvefeltet field are located inside ANR areas with a ban on construction imposed by the land-use plan for Røros municipality. The same applies to Mølmannsdalen valley, the areas on the north side of Hitterdalen valley, the Vola area and the areas west of the Glomma river between Skårhammardalen valley/Sundbakken and Orvos, as well as the areas along the Orva river up to the Nordgruvefeltet mining field and the Muggruva mine. The Arvedalslina cableway, Falkberget and the Trondalen valley are also included in this plan. These areas are attractive for the construction of holiday homes. The ANR status provides sufficient authority to the municipality with regard to the management of the world heritage values in the area.

New land-use plan for Røros town centre

A new municipal land-use plan for Røros town centre is currently being formulated, and was sent on a hearing round in the autumn of 2008. The plan is expected to be adopted in 2009. In the section «Key principles for Røros», the relationship between the plan and World Heritage is described in the following manner:

- The municipal land-use plan shall safeguard long-term management and use of the areas and the natural environment and cultural heritage sites.
- As a World Heritage Site, Røros has a particular responsibility towards the international community.

- As a World Heritage Site, Røros shall follow best practices with regard to the management of the natural environment and cultural heritage.
- The management plan shall be continued and elaborated in detail with regard to the town centre.
- Common industrial, cultural heritage and natural environment sites shall be preserved as a resource for daily use, and as a basis for knowledge, experience and sustainable cultural, social and economic growth.
- Røros shall to the greatest possible extent be protected through use, with opportunities for development and innovation based on values from its cultural history.
- The municipal land-use plan is part of the Municipal Masterplan, and takes precedence over previous zoning plans and building plans to the extent that these are in conflict with the content of the municipal land-use plan.

The plan comprises core parts of the area that is currently proposed as a World Heritage Site.

Femundshytta
The Femundshytta smelter is located within an area currently designated as an ANR area, with a general ban on new construction imposed by the municipal land-use plan for Engerdal municipality. The area is not subject to pressure for further development, and the outstanding universal value is sufficiently safeguarded by way of this planning status.

The Winter Transport Route
This area is located within areas currently designated as ANR areas, with a general ban on new construction imposed by the municipal land-use plans for Røros and Os municipalities. The world heritage values in these areas are currently not subject to pressure for further development.

The Buffer Zone
In the context of planning, most of the areas inside the Circumference are categorized as ANR areas, with a general ban on new construction. This categorization provides an opportunity to municipal and regional authorities to protect the cultural heritage in the event of pressure from parties who wish to develop the area.

Conservation area plan pursuant to Section 25-6 for parts of Tolga town centre
The areas associated with the establishment of a smelter and miners' farms at Tolga are designated as conservation areas.

New regional plan for the World Heritage Site Røros Mining Town and the Circumference
A joint regional plan for Hedmark and Sør-Trøndelag counties will be formulated for the World Heritage Site Røros and the Circumference pursuant to the new Planning and Building Act. This will be the first time such a plan has been established in Norway on the basis of World Heritage Sites, across municipal and county boundaries. The plan will focus on the role of cultural heritage as a resource for regional development, and will expand cooperation on the protection of the cultural heritage associated with the mining activities in both counties. Planning work was initiated in October 2008.

The Cultural Heritage Act of 9 June 1978

The purpose of the Act is to protect ancient monuments and historic environments with their characteristics and variations as part of Norwegian cultural heritage and identity, and as components of a unified management of the environment and natural resources. When decisions are made pursuant to other legislative acts, but with an impact on interests related to resources represented by cultural heritage, emphasis should be put on the purposes of the Cultural Heritage Act.

Monuments and sites pre-dating 1537 are automatically protected, irrespective of whether they are archaeological sites, ruins or intact buildings. The same applies to Sámi monuments and sites older than 100 years. An automatically protected buffer zone of five metres is in effect around an automatically protected object. Before starting any kind of project, the initiating party is obligated to clarify whether the project will impinge on automatically protected cultural heritage sites. Intact buildings dating from the period 1537-1649 are likewise automatically protected.

Following a comprehensive consultation procedure among relevant private bodies and public authorities, the Directorate for Cultural Heritage may issue protection orders for monuments and sites regardless of their age and including the surrounding area. The protection of the surrounding area should serve to safeguard the impact of the protected monument in the landscape and to protect any associated scientific interest. Specific provisions are established for each separate protection order. Entire historic environments are protected according to a decision by the King in Council.

The Directorate for Cultural Heritage and the county authorities can issue temporary protection orders with immediate effect if cultural heritage sites of national importance face risk of damage or obliteration. The initiation of proceedings for permanent protection is subsequently considered. A small number of municipalities have also been granted this authority, and Røros municipality is one of them.

The Act safeguards cultural monuments and sites from the earliest times with no limit in time up to the present. Application for permission is required for all kinds of projects that impinge on protected monuments and sites. The authority to grant exemption from the protection order is divided between the county authorities and the Directorate for Cultural Heritage. All decisions may be appealed to a superior authority.

Churches
With the exception of automatically protected churches, historic Norwegian churches are usually not protected pursuant to the Cultural Heritage Act. However, in cooperation with church authorities, a list has been drawn up of churches that should be managed as though they were protected pursuant to the Cultural Heritage Act.

Monuments and sites protected pursuant to the Cultural Heritage Act Listed Churches

Area	Automatically protected cultural localities – Section 4, archaeological and Sámi	Cultural sites protected pursuant to special decision, Sections 15 and 19	Listed churches
Town and Cultural Landscapes	41 (35 archeological localities and 6 Sámi)	42 localities/sites with a total of 102 buildings. Includes 1 railway station.	1
Femundshytta smelter	0	0	0
The Winter Transport Route	1 (archaeological site)	0	0
The Buffer Zone	560 localities. Each locality may have several protected objects	6 farms. Each site comprises several buildings.	8

With regard to automatically protected cultural heritage sites, registration is not complete for cultural sites older than 1537 or for Sámi cultural sites.

The Nature Conservation Act of 19 June 1970

The preamble to the Act states that the natural environment is a national asset that must be protected. The management of natural environment assets should be based on a long-term and all-round use of resources and should take into account the preservation of the natural environment in the future as a basis for human activity, health and well-being. Cultural landscapes and cultural heritage sites can be protected in accordance with this Act. In association with the preparations for the extension of the World Heritage Site, a separate report on the natural values in the Circumference has been drawn up.

The Act defines three categories of protection that are relevant for Røros Mining Town and the Circumference.

National parks

In order to preserve large, mainly undisturbed, distinctive or beautiful natural regions owned by the state, these may be designated as national parks. In a national park, landscapes, plant life, animal life and cultural and natural heritage sites are protected against encroachment. A decision to establish a national park is made by the King in Council following a comprehensive process of consultations.

Protected landscapes

Distinctive or beautiful areas of cultural or natural landscapes are protected against any encroachment that will substantially change the character of the landscape. An order for the protection of a landscape is issued by the King in Council following a comprehensive process of consultations.

Nature reserves

The establishment of nature reserves is undertaken to protect an undisturbed or largely undisturbed type of natural environment that has a particular scientific or historic interest. An area can be totally protected or protected for a particular purpose. A decision is made by the King in Council following a comprehensive process of consultations.

Areas protected pursuant to the Nature Conservation Act

Area	National park	Protected landscape	Nature reserve
Town and Cultural Landscapes		1 Kvitsanden area	
Femundshytta smelter	0	0	0
The Winter Transport Route			The route crosses two nature reserves: – Tufsingdaleskeren – Lille Korsjølia
The Buffer Zone	2 national parks: – Femundsmarka – Forollhogna	9 protected landscapes	21 nature reserves
The Circumference	2	10	23

Kvitsanden protected landscape (2004)

The Kvitsanden protected landscape is located in the area adjacent to the urban core of Røros town, and was protected pursuant to the Nature Conservation Act in 2004. The purpose of the protection is to preserve the traces from the ice age and the landscape formations in the area.

Governmentally protected recreational area at Lake Doktortjønna

The area around Lake Doktortjønna has been purchased by the Ministry of the Environment to be used for recreational purposes. The area forms a valuable part of the fringe zone around the mining town.

The Pollution Control Act of 13 March 1981

The purpose of the Act is to protect the environment against pollution, to reduce existing pollution, to reduce the quantity of waste and to promote better waste management. The Act should ensure that the quality of the environment is satisfactory, so that pollution and waste do not result in damage to human health or adversely affect welfare, or damage the productivity of the natural environment and its capacity for self-renewal.

This Act is particularly relevant with regard to polluted run-off from closed mines and smelters. The situation in terms of pollution has been surveyed, and a number of different initiatives have been implemented. In some contexts, however, pollution and waste in the form of rock piles or slagheaps constitute important components of the industrial cultural landscape, and a partial balance between these different interests has been achieved (cf. Section 4a: Present State of Conservation).

The Concession Act of 31 May 1974

Among other things the Act confers to the municipalities the prerogative to impose the obligation of residence on all housing units that are being or have been used as all-year residential housing. Røros municipality introduced provisions for the obligation of residence in 1975, and this has been of prime importance in preventing the houses in the town centre from being purchased for use as holiday homes and thereby being left empty for the rest of the year. In this manner, the Act contributes to maintaining Røros Mining Town as a living town. (Cf. Section 4b Factors affecting the Property)

The Land Act of 12 May 1995

The purpose of the Land Act is to ensure that land resources are employed in a way that is beneficial for 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 cultivable land must not be used in such a way that it becomes unsuitable for agricultural production in the future. Exemption from these provisions may be granted in special cases, following an application which must be submitted to the local authority concerned.

The Act contributes to the preservation of the cultural landscape in the Property and the buffer zone.

Royal decree of 15 August 2006

Protection of the cultural heritage is a cross-sectoral responsibility in Norwegian public administration. This implies, for example, that all sectors of the government are responsible for the cultural heritage and historic buildings that they own. By a Royal Decree of 15 August 2006, all ministries and their subordinate agencies became obliged to establish nationwide plans for the protection and management of their properties. The national protection plans provide no legal safeguards as such, but establish an administrative type of protection. The most prominent objects will subsequently be protected pursuant to the Cultural Heritage Act.

The following national protection plans are relevant with regard to Røros Mining Town and the Circumference:

National protection plan	Number of objects in the Property	Number of objects in the Buffer Zone
Cultural heritage sites in Norwegian power supply	Kuråsfossen I power station	0
NSB (Norwegian State Railways)	Glåmos station (listed)	Håmålvoll station Reitan station Stensli station
Cultural heritage in the railways (Norwegian National Rail Administration)	Røros station	Tolga station Håmålvoll station Reitan station Stensli station

5c Means of implementing protective measures

The Declaration of Intent

The Norwegian Government and regional authorities, the Sámi Parliament and five municipalities have signed a declaration of intent in which they commit themselves to protect the outstanding universal value of the Property. In addition they will protect relevant monuments, sites and cultural landscapes in the buffer zone. (Cf. Annex 4: Declaration of Intent)

Agencies with Management Authority

In Report No. 16 (2004-2005) to the Storting, *«Living with our cultural heritage»*, the Government emphasizes that the Norwegian World Heritage Sites should constitute examples of best practice with regard to the management of cultural heritage. The Government has decided that management should be effected through existing Norwegian legislation and public management systems, with the appurtenant distribution of responsibilities between administrative levels and sectors. No special bodies with authority in the individual World Heritage Sites have therefore been established.

Management of cultural heritage

The Ministry of the Environment

The Ministry acts as a political secretariat for the Minister of the Environment and is the country's supreme authority in matters pertaining to cultural heritage. The Ministry also prepares proposals for the protection of historic environments for the King in Council, and acts as body of appeal for decisions made by the Directorate for Cultural Heritage.

The Directorate for Cultural Heritage

The Directorate for Cultural Heritage is the professional advisory and executive body for the Ministry of Environment. The Directorate:

- Makes decisions on protection pursuant to the Cultural Heritage Act.
- Acts as an authority in matters pertaining to cultural heritage, and can grant exemptions from the protection of automatically protected cultural heritage sites.
- Acts as an authority in matters pertaining to cultural heritage, and can grant exemptions from the protection of cultural heritage sites owned by the state.
- Can raise objections to municipal plans that threaten cultural heritage of national importance. The matter will in this case be decided by the Ministry of the Environment.

The central area of Røros town around Malmplassen square and the mines of the Storwartz field are owned by the government, represented by the Ministry of the Environment. Responsibility for the management of these sites has been delegated to the Directorate for Cultural Heritage, which holds the responsibilities associated with ownership and acts as an authority in matters pertaining to requests for changes. Røros Museum operates the area on a daily basis and is responsible for the implementation of maintenance and repair work.

Sør-Trøndelag county authority, Hedmark county authority and the Sámi Parliament

The county authorities are independent, politically governed regional bodies, while the Sámi Parliament is an independent, politically governed body with responsibility for matters pertaining to the Sámi minority, including the management of its cultural heritage sites nationwide.

These institutions:

- Act as advisors to the municipalities in matters pertaining to cultural heritage in the context of planning.
- Have responsibility for following up those parts of the municipal plans that impinge on the preservation of cultural heritage sites, and for raising objections to these plans if cultural heritage of regional or national importance are threatened. This also applies to world heritage. The matter will in this case be decided by the Ministry of the Environment.
- Act as advisory authorities in matters pertaining to requests for changes to be undertaken to protected buildings, and may grant exemptions for minor changes. Appeals to decisions made by the county authorities or the Sámi Parliament can be submitted by the site owner or a relevant interest group, and will in this case be decided by the Directorate for Cultural Heritage.
- Can issue orders for temporary protection pursuant to the Cultural Heritage Act if cultural heritage values of national importance are threatened.

The municipalities

Municipalities are independent, politically governed bodies at the local level. The municipalities:
Hold a general responsibility for planning within their geographical boundaries.

- Provide advice and follow up maintenance in conservation areas.
- Process requests for changes to be undertaken to buildings that are worthy of protection but not listed as protected. Appeals on the decisions made by the municipality can be submitted by site owners, relevant interest groups or the county authority.
- Røros municipality is one of a small number of Norwegian municipalities that have been granted authority to issue orders for temporary protection pursuant to the Cultural Heritage Act if cultural heritage of national importance is threatened.
- Røros municipality also organizes the repair of outbuildings through the Outbuildings Project, and establishes agreements with local farmers for the maintenance of the cultural landscape at Småsetran and the other urban land plots.

The site owners constitute a cornerstone in the management of the nation's cultural monuments and sites. Their willingness and initiative are decisive for an appropriate level of protection. The owners are responsible for the ordinary maintenance of their properties.

Management of natural resources

Directorate for Nature Management

The Directorate for Nature Management is the professional advisory and executive body for the Ministry of the Environment in matters pertaining to the management of natural resources.

County Governors of Sør-Trøndelag and Hedmark counties

The County Governor is the representative of the Government at county level, and has a particular responsibility for coordinating government-initiated activities in the county so that important national policies can be implemented in a balanced manner.

A primary task of the County Governor's office is to ensure that the local authorities fulfil the obligations for which they are responsible. These comprise obligations within several fields of society, including nature conservation and agriculture.

The responsibilities of the Division for Environmental Conservation include:
- Implementing conservation plans
- Managing protected areas
- Monitoring the natural environment
- Managing areas for outdoor recreation
- Managing game and freshwater fish
- Monitoring compliance with environmental regulations in planning
- Monitoring levels of pollution

The responsibilities of the Division for Agriculture include:
- Monitoring agriculture and forestry
- Development of local agriculture
- Development of agriculture and forestry in the context of local and regional planning

Both divisions cooperate with the county authorities with regard to the protection of important cultural landscapes.

The Norwegian Nature Inspectorate

The Nature Inspectorate was established by the Nature Inspectorate Act of 21 June 1996. Its purpose is to manage environmental assets of national importance and to prevent environmental crime. The Inspectorate has the task of providing guidance and information, care and maintenance, registration and documentation. This applies to both cultural and natural heritage. Inside the Circumference there are four supervisory bodies for nature conservation, one of which is associated with Røros municipality.

World heritage council

A world heritage council/collaborative advisory council has been established in all Norwegian World Heritage Sites, with representatives of all levels of public management. In Røros Mining Town, the main task of the council has consisted of coordinating the management of the mining town as a cultural heritage site. In order to coordinate the management of the far larger, extended World Heritage Site, an expanded council will be established with representatives of five municipalities, two county authorities and the government. The council will have representatives that are politically as well as administratively appointed, and will approach the world heritage status broadly as a basis for improving the management of the World Heritage and for achieving sustainable development of the local communities.

5d Existing plans related to municipality and region

Tourism

Represented by the Ministry of Trade and Industry, in 2007 the Government submitted a strategy for the Norwegian tourist industry: *«Valuable experiences – national strategy for the tourist industry»*. One of the main goals for the tourist industry is to turn Norway into a sustainable tourist destination. The strategy says the following about the World Heritage Sites:

> *«The status as world heritage area places high demands on the management of cultural and natural values. The Government wants the Norwegian world heritage areas to be developed as beacons for best practice within nature and cultural heritage management, and NOK 40 million is set aside for this in 2008. The primary industries in these areas are in decline, and there is*

therefore a need to investigate how agriculture may be operated and developed, in order to preserve the cultural landscape for the future.»

Through Innovation Norway, a government-owned enterprise under the auspices of the Ministry of Trade and Industry, Norway has signed National Geographics' charter for *geotourism* and has committed itself to following and implementing the principles of geotourism in its promotion of the tourist industry. Geotourism is a type of tourism that maintains, strengthens and emphasizes the local characteristics, environment, culture, aesthetics and cultural heritage of a destination, and that benefits the local community.

The project «Sustainable Tourism 2015»
As follow-up to the national tourism strategy, the Ministry of Trade and Industry has launched the project «Sustainable Tourism 2015» through Innovation Norway. The Røros region has been selected as one of four pilot projects, which will include the compilation of a proposal for a certification scheme for tourist industry enterprises. The project comprises the tourist industry in the Holtålen, Os, Tolga and Røros municipalities.

In September 2008, a separate regional strategy for tourism was prepared for the Nord-Trøndelag and Sør-Trøndelag counties, focusing on World Heritage and Røros as a prominent tourist destination.

Selected cultural landscapes in agriculture
From 2008, the Ministry of Agriculture and Food has entered into a cooperation with the Ministry of the Environment, the Norwegian Agricultural Authority, the Directorate for Nature Management and the Directorate for Cultural Heritage with a view to identifying twenty selected cultural landscapes in Norwegian agriculture.

The active mountain farming areas in the Vanggrøftdalen and Kjurrudalen valleys in Os municipality have recently been selected as one of these landscapes. The selection criteria include that the area should constitute a coherent landscape with continuity and a long history, that it is either representative or characteristic, and that it possesses a major value in terms of information. The Vanggrøftdalen and Kjurrudalen valleys are located inside the Circumference in the south-western part of the buffer zone, and their inclusion in this scheme will ensure funding for annual maintenance work.

The Interreg project «Scandinavian Heartland»
In 2008, the Interreg project cooperation was initiated between the mountain regions in Hedmark and Sør-Trøndelag counties in Norway and Dalarna and the southern part of Jämtland counties in Sweden. The project comprises two sub-projects:
- Living rural communities
- Tourism based on nature and culture

The university colleges in Hedmark and Dalarna participate through the training of students and promotion of project assignments related to World Heritage may become a relevant option. The goal of the project is to strengthen cross-border cooperation as well as the attractiveness and competitiveness of the regions involved. The World Heritage Sites Falun and Røros are both partners in the project.

5e Property management plan

The Statement of Intent
Cf. Annex 4

Management Framework and Plans
Cf. Annex 3

Ongoing projects
A number of repair and maintenance projects are underway, and these will be continued and possibly expanded inside the nominated world heritage area. *(See also section 4a: Present State of Conservation)*

The Outbuildings Project
The project, initiated in 1995, is supervised by Røros municipality. The project has gained major importance for the development of knowledge and craftsmanship, and is currently attracting international attention. The project is an ongoing effort, and is currently working not only inside the present world heritage site, but also in the area that has been nominated for extension.

Repair and maintenance of government-owned properties acquired from Røros Copper Works
Buildings and installations left from Røros Copper Works, currently owned by the government represented by the Ministry of the Environment and managed by the Directorate for Cultural Heritage/Røros Museum, are undergoing constant repair and maintenance work. This applies to buildings and installations around Malmplassen square and in the mountain areas around the Storwartz mines. This work is supervised by Røros Museum.

Repair and maintenance of buildings owned by Røros Historical Society in Sleggveien road
Røros Historical Society is an NGO that owns five buildings at the top of Sleggveien road, near the slagheaps. These buildings are used as museums and are maintained by Røros Museum.

Repair and maintenance of the church
Comprehensive repair and maintenance work is being undertaken on the church. This will continue for several years to come.

Agreement on the maintenance of cultural landscapes
An agreement has been signed with a local farmer for the maintenance of the cultural landscape in the Småsetran district. This agreement is still valid, and an assessment of whether it should be expanded to comprise larger areas will be undertaken.

5f Sources and levels of finance

There are a number of different grant schemes that could be relevant for the World Heritage Sites. Few of these are intended specifically for World Heritage Sites, but in the event of an application world heritage status may enhance the priority given to the application.

Ministry of the Environment/Directorate for Cultural Heritage
Funds have been allocated for projects in the world heritage areas through items on the state budget included in the chapter devoted to the Directorate for Cultural Heritage. In 2008, Røros Mining Town was granted approximately NOK 11 million. The funds are primarily used for repair and maintenance of buildings, for example through the Outbuildings Project and for the repair and maintenance of the buildings acquired by the government from Røros Copper Works at Malmplassen square and in the Storwartz mining field. Some funds are also devoted to the maintenance of the cultural landscape in the Småsetran district. World Heritage has been given priority in successive state budgets, and the level of funding has gradually increased.

The county authorities
The Directorate for Cultural Heritage allocates annual funding to the county authorities for the repair and maintenance of buildings that are protected pursuant to the Cultural Heritage Act. The county authorities also contribute funds from their own budgets for the maintenance of protected and other historic

buildings. In addition they grant substantial funding to the museums to cover operations, exhibitions and various other initiatives.

Norwegian Cultural Heritage Fund

The goal of the Norwegian Cultural Heritage Fund is to help to coordinate public and private sources of financing to ensure that a variety of Norwegian cultural heritage sites and cultural environments are preserved and made available for the general enjoyment and enlightenment of the public, and for development and general growth. It is intended to encourage cooperation between site owners and the business community, promote the availability of private capital and support local and regional partnerships and expense sharing. Applications for support submitted by site owners inside world heritage areas have been given high priority. The Fund's secretariat is located at Røros.

Ministry of Agriculture and Food

The Ministry of Agriculture maintains a number of grant schemes that help sustain an active agricultural sector and preserve cultural landscapes. Those that most directly help to preserve cultural and natural heritage values in the landscape are listed below.

Special environmental initiatives in agriculture

This scheme has a two-fold purpose: to preserve the cultural and natural heritage values in the agricultural landscape, and to reduce pollution from agricultural activities. The scheme is operated by the municipalities.

National grant scheme for grazing land

The purpose of the scheme is to encourage increased grazing by domestic animals in areas that are currently not used as pasture, as well as to reward farmers who let their animals graze freely.

Regional environmental programmes in agriculture

The regional environmental programmes are compiled by the County Governors in consultation with the county authorities and regional business sector organizations, and are intended to enhance the impact of environmental efforts in agriculture at the regional level. A number of different programmes of varying character have been drawn up, adapted to the situation in the individual counties. The largest programme comprises general efforts to prevent overgrowth in cultural landscapes.

World heritage programmes under the annual agricultural marketing agreement

In order to safeguard the cultural landscape in the world heritage areas, the Ministry of Agriculture has launched a separate world heritage programme under the annual agreement on marketing and funding with the organizations in the agricultural sector. These funds should be seen in conjunction with funding granted by other sectors of public administration. Currently these funds apply only to initiatives within the two world heritage areas of Vega Archipelago and the West Norwegian Fjords. The existing world heritage area at Røros currently comprises only the town houses, and is therefore not eligible for this scheme at present.

Ministry of Local Government and Regional Development

Discretionary funding

Since 2004, the criteria for the allocation of discretionary funding emphasize that municipalities that face special challenges in terms of environmental policy associated with the management of common social resources should be granted extraordinary funding if these challenges are not addressed through the ordinary system for distributing income between municipalities. This applies, for example, to municipalities that possess national cultural heritage sites/historic environments and large areas that are protected pursuant to the Nature Conservation Act. This discretionary funding is allocated by the County Governors on the basis of applications.

The county authorities' regional development funds

The county authorities are responsible for the management of funds granted by the Ministry of Local Government and Regional Development for regional development purposes. The funds granted as direct support to enterprises are allocated through Innovation Norway. In Sør-Trøndelag county a separate programme has been established to support efforts to promote positive development and settlement in the inland municipalities in Sør-Trøndelag county. Os and Tolga municipalities are also covered by the programme. The development of industries and activities based on cultural and natural heritage, culinary culture and performing arts are all eligible for this scheme.

EU Interreg funding

Interreg is one of several EU development programmes for regions that border on non-EU countries, including Norway. With regard to World Heritage Røros Mining Town and the Circumference, the programmes *Nordic Green Belt* (comprises the two Trøndelag counties in Norway and Jämtland and Västernorrland counties in Sweden) and *Scandinavian Heartland* (comprises Hedmark county and Røros in Norway and Dalarna county in Sweden) may be of relevance.

From the Norwegian side, funding is allocated by the Ministry of Local Government and Regional Development and the participating public authorities. Development projects for competence building in the fields of the natural environment, culture and tourism, training and competence development and ICT are relevant for several aspects of the management of world heritage.

Cooperation with the World Heritage Site Falun in Sweden is of particular interest, since this is Røros' Nordic twin town.

Ministry of Culture and Church Affairs

The Ministry of Culture allocates funds to the museums and national cultural institutions, among other establishments. The ministry may also allocate funding directly to specific initiatives or projects.

Norwegian Archive, Library and Museum Authority may grant funding to projects associated with the dissemination of information, archives, digitalization, and the development and protection of the museums' collections.

Arts Council Norway is subordinate to the Ministry of Culture and allocates funding to projects that aim to preserve intangible cultural heritage.

Ministry of Education and Research

The Ministry of Education and Research is an important partner with regard to the dissemination of information, and has several grant schemes that receive applications for projects in the municipal schools.

Research Council of Norway has programmes that can grant support for research and development work associated with World Heritage.

5g Sources of expertise and training

National level

Directorate for Cultural Heritage

The Directorate for Cultural Heritage possesses expertise in a number of disciplines that are relevant for the management of Røros Mining Town and the Circumference: architectural history, technical and industrial monuments, technical expertise for building preservation, Sámi cultural heritage, archaeology, cultural landscapes and jurisprudence.

Directorate for Nature Management and Norwegian Nature Inspectorate
The Directorate employs experts in the field of nature management. It also includes a division that undertakes fieldwork. One inspector is permanently stationed at Røros.

Directorate of Mining
The Directorate employs experts on geology and mining.

Norwegian Institute for Cultural Heritage Research
This national research institute employs highly qualified specialists in cultural history, architectural history, archaeology and conservation. The institute has undertaken a number of projects and surveys in Røros Mining Town and the Circumference. The Directorate for Cultural Heritage has a permanent, annual agreement with this institute on surveys at Røros.

Norwegian Institute for Water Research (NIVA)
NIVA has undertaken research and development projects focusing on the run-off of metals from most of the mining areas of importance in the region, in particular at the Nordgruvefeltet and Storwartz mining fields.

Norwegian Institute for Nature Research
This national research institute employs highly qualified specialists in natural history, biology, ecology etc.

Norwegian University of Science and Technology in Trondheim (NTNU)
The university trains graduate-level architects and engineers within mining and metallurgy. In addition the university offers Master's degrees, and undertakes research in the fields of mining, metallurgy, building preservation and cultural heritage management.

SINTEF (Norway's largest research organization), Norwegian Institute for Urban and Regional Research and NTNU have undertaken a number of research projects and surveys associated with Røros as a historic site and world heritage area.

Sør-Trøndelag University College
This university college offers continuing education in building preservation for technicians and craftspeople.

Regional level
Hedmark and Sør-Trøndelag county authorities possess expertise in a number of fields. Their experience in planning and cultural heritage management is particularly relevant for world heritage areas.

The County Governors of Hedmark and Sør-Trøndelag counties possess expertise in several areas. Their competence in environmental management and agriculture is particularly relevant for world heritage areas.

The Sámi Parliament possesses expert competence in the field of Sámi cultural heritage sites and their management, and is responsible for issues related to Sámi cultural sites nationwide.

Upper secondary schools
The upper secondary schools at Røros and Tynset provide training for building and construction. Preparations are underway to enable apprentices to obtain a craft certificate in the field of building preservation.

Local level
Municipalities
All municipalities possess competence in planning. Only Røros municipality possesses expert competence in the management of cultural heritage sites.

Røros Museum

The museum possesses expertise in cultural history related to mining, agriculture, building traditions, cultural landscapes and Sámi cultural heritage in the Røros region. A centre for building preservation with regional responsibility has been established at the museum. Every year, the centre arranges a number of courses for craftspeople, and also undertakes repair and restoration work. In combination with the Outbuildings Project, the centre has a key role in the efforts to provide continuing education to craftspeople in the field of building preservation.

Nordøsterdal Museum

The museum possesses expert competence in cultural history related to mining, agriculture, traditional architecture, cultural landscapes and society in the Nordøsterdal region. The museum also has competence in building preservation.

The Outbuildings Project

The Outbuildings Project, under the supervision of Røros municipality, has been in activity for more than ten years. From its inception, one of the main ideas behind the project was that it should serve as a training ground in line with the principle of «learning by doing». In combination with the centre for building preservation under the auspices of Røros Museum, the project has served to establish a core group of craftspeople with expert skills in repairing and restoring historic buildings in the Røros region.

Celebration of Craft

This was an EU project under the Leonardo da Vinci programme, involving eight partners from six different countries. Its purpose was to test the working methods of the Outbuildings Project in an international context and to build respect for the knowledge and skills of craftspeople, as well as to demonstrate the need for a cross-disciplinary approach in the restoration of historic buildings.

The craftspeople

The core group of highly skilled restoration craftspeople currently found at Røros represents a knowledge resource and contributes to the training of new craftsmen. They are currently active even beyond the confines of Røros, and participate in several international projects.

5h Visitor facilities and statistics

Røros and the Circumference have a lot to offer visitors. Facilities for visitors include simple, rustic accommodation as well as high-standard hotels, cafés and gourmet restaurants etc. Businesses and shops of various kinds can be found in the two main streets of the town.

Røros Reiseliv Travel Cooperative is a joint destination enterprise for the promotion of tourism in Røros, Os, Tolga and Holtålen municipalities. The enterprise operates a tourist office at Røros and arranges town walks in the old mining town.

The Town and Cultural Landscapes

Communications to Røros Mining Town:

Air:

Røros can be reached by air from Oslo Airport Gardermoen.
Travel time: One hour. Currently there is one daily arrival with a return flight after a short stop.
A number of domestic and international flights land at Værnes airport (Trondheim), with train connections to Røros. Travel time is approximately three hours.

Train:
From Oslo via Hamar to Røros
Travel time: Five hours. Approximately eight departures and returns per day.

From Trondheim to Røros
Travel time: 2½ hours. Five departures and returns per day.

Bus
Several bus companies operate various daily connections between Røros and Oslo, Hamar, Elverum and Trondheim.

The number of visitors to Røros Mining Town has been estimated by Røros Tourism to amount to **approximately 1 000 000 per year.**

Hotel capacity in Røros Mining Town

	Number of rooms
Hotels	376
Motels/guest houses	26

In addition private rooms are rented out on a minor scale.

Tourist attractions

Røros Museum
The museum in the old smelting house is open all year, with periodic exhibitions related to the mining activities and the Røros community. The museum arranges guided tours also outside the museum building itself, in particular to the slagheaps and to Sleggveien road, where a number of buildings have been furnished as museums that can be opened to the public on request.

In 2007, the museum also started to arrange guided tours in the Storwartz area. The museum operates the Olavsgruva mine there as a museum site, arranges guided tours in the mine and sets up exhibitions in the entrance building.

Number of visitors in 2007

The smelting house and the Olavsgruva mine	40 500
Sleggveien road	5 250

Doktortjønna recreational park and Femundsmarka national park centre
The centre arranges specially adapted walks for groups of visitors in «The world heritage and Røros landscape». The tours focus on topics related to both cultural and natural heritage.

The «Fjell-Ljom» Press Museum
The newspaper 'Fjell-Ljom' was established in 1886. The original newspaper house has been preserved intact with its complete technical equipment, and currently serves as a museum. The writer Johan Falkberget was associated with this newspaper for fifty years.

Ratvolden, to the east of and below the King's Mine
The former home of the writer Johan Falkberget is open to the public during the summer season. His former home has been preserved and is currently owned by Røros municipality, while a private association, the Falkberget Ring, arranges guided tours of the site and operates a café and a shop.

Number of visitors on guided tours in 2007: Approximately 1800. Many more make their own visits to the site, and the gate is always open.

The Røros Fair

The fair is the major annual event at Røros and takes place in the third week of February. Stalls and places for the sale of food and beverages are set up all over the town area. At the outset this served as a place where the local population could meet visitors from near and far who wanted buy or sell goods at the annual winter fair. Gradually the fair developed into a tourist attraction.

Estimated number of visitors in 2008: Approximately 75 000.

Røros is also the venue for a considerable number of other cultural activities, and several festivals are arranged in addition to the attractions described above

Femundshytta smelter

Communication:

Daily trips and returns during the summer season with the boat «MS Fæmund II». There is no other public transport to Femundshytta. A toll road leads to Femundshytta, but only the site owners are allowed to use this road.

Catering

The farm serves food to visitors during the summer. Number of visitors in 2007: Approximately 2000.

Guided tours:

The owners of the farm arrange guided tours in the ruin of the smelting house.

5i Policies and programmes related to the presentation and promotion of the property

Museums

Røros Museum

The museum operates websites that provide comprehensive information on Røros Mining Town and the Circumference. The websites www.verdensarvenroros.no and www.worldheritageroros.com had a total number of 90 000 hits in 2007, which is an increase of 67 per cent from the preceding year.
The general website of the museum: www.rorosmuseet.no

World Heritage Centre

Plans are being prepared for the establishment of a World Heritage Centre for the documentation and dissemination of information. Røros Museum is supervising this work.

Nordøsterdal Museum

The Nordøsterdal Museum foundation is a regional museum for the Nord-Østerdal district and is responsible for several sites in different locations inside the Circumference. The museum cooperates with Røros Museum on the dissemination of information related to mining.

Website: www.nordosterdalsmuseet.no

Falkberget/Ratvolden
The former home of Johan Falkberget at Ratvolden currently functions as an independent museum unit owned by Røros municipality. Johan Falkberget's novels portray the human and social conditions associated with Røros Copper Works in the past.

The «Fjell-Ljom» Press Museum
The «Fjell-Ljom» press museum was opened in 1986 following a comprehensive voluntary joint effort. It contains an important segment of cultural history in the form of the only remaining complete, old-fashioned newspaper printing house in the Nordic countries. The site is currently operated by Røros Museum.

The Museum Centre in Trysil-Engerdal is a museum for the geographical areas located in Engerdal municipality.

Ålen Rural Museum and Petran Museum at Holtålen
Holtålen municipality possesses buildings and collections that reflect activities related to social development inside the Circumference through the ages.

Femundsmarka National Park Centre, with departments at Røros and Elgå, arranges exhibitions on the nature and culture in the Femundsmarka National Park, as well as evening lectures and guided tours on the national park and other areas of natural environment and cultural landscapes inside the Circumference.

Local newspapers
Røros is in the unique position of having two old local newspapers – «Fjell-Ljom», established in 1886 and «Arbeidets Rett», established in 1907. In addition a further newspaper has recently been established – «Gränsposten». The regional newspapers «Østlendingen», «Adresseavisen» and «Breidablikk» are also read in parts of the area. These most probably serve as the main media through which the local population can be kept informed of the efforts to extend the world heritage area. The newspapers monitor these efforts actively, and are regularly invited to press conferences.

The municipalities' websites
Information on World Heritage Røros Mining Town and the Circumference will be posted on the websites of all the municipalities involved.

Dissemination to children and youth
Dissemination of information on world heritage values to the younger generation is given priority by the schools. World heritage values are brought to the pupils by way of separate projects and through the regular teaching of social sciences. At Røros, several cooperative projects involving the schools and Røros Museum have been implemented – for example the project on the adoption of houses.

«Adopt a house»
Røros Museum had a problem with repeated vandalism on unoccupied buildings for which the museum was responsible. Cooperation was therefore established with the school on the adoption of houses. Under this arrangement, groups of pupils are assigned responsibility for monitoring particular houses, while they also are given information on the history of the building. The scheme has been a resounding success. Vandalism has ceased, and the adoption of houses has generated interest and «ownership» of the World Heritage.

«World Heritage in young hands»
Through the programme «World Heritage in young hands», the decision-makers of the future receive knowledge and practical training that encourage the protection and preservation of the cultural and

natural heritage. The programme is a cooperation between the UNESCO World Heritage Centre, with support from the World Heritage Committee, and the UNESCO school network, ASPnet. Its main purpose is to develop new forms of teaching through activities in schools and international meetings for students and teachers. The development of the project has taken place through training courses for teachers and workshops for students. The teacher training courses provide an introduction to the educational material developed by UNESCO on World Heritage.

Røros Upper Secondary School has been an active partner in these efforts from their inception at the international level in 1994. Four international workshops have been arranged on the World Heritage Site Røros Mining Town under the auspices of Røros Upper Secondary School, in close cooperation with the municipality and the authorities responsible for conservation. Teaching at the school includes subjects related to World Heritage, and a separate course for tour guides has been developed with an emphasis on this field.

In the workshops for youth the students receive knowledge, practical training and skills in various types of conservation and maintenance. Here they undertake independent assignments under the supervision of a competent master craftsman. Representatives of Røros Museum, Røros municipality, the Røros division of the Society for the Preservation of Norwegian Ancient Monuments and other partners have supervised such restoration groups for youth.

The schools at Os, Tolga, Holtålen and Engerdal also provide information to their pupils on the history of Røros Copper Works, Røros town and the mining communities and smelters inside the world heritage area. Following the establishment of Røros Mining Town and the Circumference as world heritage, there are ample opportunities for expanding the cooperation between different schools on training programmes related to the world heritage.

Private associations and voluntary organizations

A number of private associations have been established with a view to maintaining the cultural heritage at Røros. These associations undertake a considerable amount of work in the local environment.

Røros Historical Society has a large membership mass and publishes books/leaflets on buildings, cultural landscapes and people in the world heritage area. The society also owns a number of buildings, which are managed by Røros Museum.

Friends of the Olavsgruva mine is a support group for the Olavsgruva mine and arranges activities related to the mine.

«The Old Mining Town» Association is a local division of the Society for the Preservation of Norwegian Ancient Monuments and manages the Per Åsmundsagården and the Rasmusgården houses at Røros. The association arranges evening lectures and is active vis-à-vis public authorities.

The Falkberget Ring acts to promote interest in the work of the writer Johan Falkberget. The Ring arranges courses, seminars etc.

Friends of the Røros Cow work to promote knowledge of the Røros cattle breed, which for centuries served as the main source of food for people in the Circumference.

The local historical societies in Engerdal, Os, Tolga and Holtålen all undertake activities that to some extent are related to issues pertaining to the historic development in the world heritage areas and the buffer zone.

5j Staffing levels

The two county authorities play an important and direct role in the management of the Property and the buffer zone. (Cf. section 5 c: Means of implementing protective measures and section 5 g: Sources of expertise and training.) They each employ one architect with competence in cultural heritage management, who in particular monitors the World Heritage Site Røros Mining Town and the Circumference. In addition the county authorities can make use of the entire spectrum of relevant competence that is found within their own organizations.

Town and Cultural Landscapes

Røros municipality

Røros municipality employs one cultural heritage manager (an architect), who works within the technical services division of the municipal administration. In addition the Outbuildings Project is supervised by a separate site supervisor. The municipality also employs a planner with competence in cultural heritage management.

Norwegian Institute for Cultural Heritage Research

The institute permanently employs a technical curator, who annually undertakes preparatory investigations before repair and maintenance work is started. This work is undertaken in cooperation with the cultural heritage authorities and is funded by the Directorate for Cultural Heritage.

Røros Museum

The museum possesses expert competence in cultural history related to mining, agriculture, Sámi cultural history and local traditional construction methods. In addition the museum possesses competence in practical building preservation and arranges training courses in this field. The museum supervises the repair and maintenance work on the buildings that it manages and also accepts external assignments.

Number of employees with expert competence in cultural history: 5 persons
Number of employees at the centre for building preservation: 7 persons

The craftspeople

All repair and maintenance projects have emphasized training. The Røros region currently has a group of craftspeople with expert skills at its disposal. These are mostly self-employed and accept assignments inside the entire area of the Circumference.

Number of enterprises with expert competence in building preservation: Approximately 15

Femundshytta smelter

No expertise in the management of cultural heritage sites is found locally, but there is sufficient competence for the management of the area in the county authority and at Nordøsterdal Museum. In addition Engerdal municipality employs a manager for cultural issues who also works with the museums and on the management of cultural heritage sites.

The Winter Transport Route

No expertise in the management of cultural heritage found in the area through which the route passes. The southernmost part of the area is located in Os municipality, which possesses no expert competence in the field of the management of cultural heritage sites. There is sufficient competence for the management of the route in the county authority and at Nordøsterdal Museum. The northernmost part of the route runs through Røros municipality (see above).

6 Monitoring

A number of different authorities have the responsibility for monitoring that the outstanding universal value is safeguarded in the world heritage areas. The Directorate for Cultural Heritage collects this information in the Periodic Reporting to the World Heritage Committee.

6a and b Key indicators for measuring state of conservation and administrative arrangements for monitoring property

Periodic Reporting (27 October 2005) was submitted to the World Heritage Committee in respect of previously inscribed world heritage areas. However, prior to this the Directorate for Cultural Heritage invited ICOMOS Norway to conduct an evaluation of the management of Røros Mining Town as a World Heritage Site. ICOMOS Norway appointed a group of independent Norwegian and foreign experts to carry out the evaluation. Two such evaluations were carried out in 1993 and 2003 respectively (cf. Section 6 c: Results of previous reporting exercises).

Aerial photography

It is now proposed that Røros Mining Town be extended to include the industrial and agrarian cultural landscapes. Aerial photographs will be analyzed to monitor changes in the cultural landscape. Aerial photography will be carried out every six years in connection with Periodic Reporting to the World Heritage Committee.

Indicators measuring state of conservation	Agencies responsible for the monitoring
Number of historic buildings restored to a normal level of maintenance.	Municipalities County authorities
Number of historic outbuildings restored to a normallevel of maintenance	Røros municipality, Outbuildings Project
Number of protected buildings restored to a normal level of maintenance	County authorities Askeladden, the database of the Directorate for Cultural Heritage, maintains an overview of the maintenance situation
Number of listed churches restored to a normal level of maintenance	Directorate for Cultural Heritage
Number of technical/industrial heritage sites restored	Municipalities and county authorities for sites in private, municipal or county authority ownership Directorate for Cultural Heritage for sites owned by the state
Number of areas with contracts for maintenance and clearance to prevent overgrowth	Municipalities Directorate for Cultural Heritage County Governor
Number of old roads that are tended in order to prevent overgrowth	Municipalities
Overgrowth of cultural landscapes: The development is to be monitored through the analysis of aerial photographs	County authorities Directorate for Cultural Heritage

Indicators measuring state of conservation	Agencies responsible for the monitoring
Construction of holiday homes: The development is to be monitored through the analysis of aerial photographs	Municipalities County authorities Directorate for Cultural Heritage
Growth of urban settlements: The development is to be monitored through the analysis of aerial photographs	Municipalities County authorities Directorate for Cultural Heritage

6c Results of previous reporting exercises

ICOMOS Norway reports in 1993 and 2003

Two reports have been compiled by ICOMOS Norway for the existing world heritage area, Røros Mining Town. After Røros' more than ten years as a World Heritage Site, the Directorate for Cultural Heritage was of the opinion that the time was ripe for an impartial evaluation of the management of Røros as cultural heritage. ICOMOS Norway was asked to conduct this. An international group of five Norwegian and international experts was appointed, and the evaluation was carried out in 1993 and repeated in 2003. Both reports set out general guidelines for the future management of Røros Mining Town.

The 1993 report underlined the value of the outbuildings and their poor state of maintenance. This led to the start of the «Outbuildings Project» (Uthusprosjektet). The report contains a special chapter on the outer limits and possible extension of the World Heritage Site. First, it is recommended that the present site should be given clear boundaries and that these should include specified areas outside the built-up area. Secondly, it is recommended that special attention be paid to the cultural landscape defined by the whole Circumference. It is proposed that the Circumference should be defined as a buffer zone, and that the name of the Property be changed to «Röros Mining Town and its Circumference».

The 2003 ICOMOS Norway report was compiled as preparation for the Periodic Reporting activity required by the World Heritage Committee. Work on the extension of the world heritage area was commenced as a follow-up of the 1993 report, and ICOMOS Norway was requested to focus on the evaluation of the management of today's world heritage area. One of the recommendations of the report is that the work to determine the boundaries and the extension continue. The report calls for the establishment of a management plan, and recommends that a Visitors Centre should be established and that the Outbuildings projectshould continue.

Periodic reporting to the World Heritage Committee (27 October 2005)

A Periodic Report dated 27 October 2005 that was compiled for the existing world heritage area was submitted to the World Heritage Committee. As a result the name of the world heritage area was changed from «Røros» to «Røros Mining Town» (Norwegian: Røros bergstad).

Review of protected buildings

At present a project that represents a collaboration between the county authorities and the Directorate for Cultural Heritage is being conducted to carry out a survey of the state of maintenance for buildings nationwide that are protected pursuant to the Cultural Heritage Act. The data will be entered into the database of the Directorate for Cultural Heritage – Askeladden.

The survey of Røros has been completed and the work on entering the data into the database will be concluded in April 2009. The result of the survey shows that the state of maintenance in houses facing the street is good, and that after more than ten years of conservation work on the outbuildings, their condition is also generally good. Overall the state of maintenance of protected buildings within the nominated world heritage area is well above the national average.

7 Documentation

7a Photographs

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
Front page	The Winter Transport Route	2003	Stefan Quinth	© Stefan Quinth	Camera Q Slottet 530 10 Vedum, Sweden	
1 and 2	Map of the Circumference 1737			©Riksarkivet	Postboks 4013 Ullevaal Stadion, 0806 Oslo, Norway	
3	Letter of Privileges of 1646			©Statsarkivet i Trondheim	Maskinistgata 1, 7042 Trondheim, Norway	
4	Map of Røros Mining Town 1711			©Det Kongelige bibliotek, Fotografiske atelier, København, Denmark	Postboks 2149 DK-1016 København .K Denmark	
5	Røros about 1890		Drawing; Arne Berg	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
6	The town in winter	2001	Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
7	The town and surrounding landscape	2001	Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
8	Røros smelter at work	1907		©Røros Museum	Pb. 224 7374 Røros, Norway	x
9	Inside the smelting house			©Røros Museum	Pb. 224 7374 Røros, Norway	x
10	Malmplassen	2005	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
11	Hitterelva	2005	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
12	Hitterelva	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
13	Hitterelva	2006	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	
14	Streets	2008	Lisen Roll	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
15	Church, Malmplassen, slagheaps		Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
16	Copperworks' bell	2005	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
17	View from the slagheaps	2002	Arve Kjersheim	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
18	View from the slagheaps	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
19	Church interior	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
20	Church interior	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
21	Hiort chapel	2008	Lisen Roll	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
22	Hiort chapel	2005	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
23	Hiort chapel	2005	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
24	Bergmannsgata	1865	Elen Schomragh	©Røros Museum	Pb. 224 7374 Røros, Norway	x
25	Bergmannsgata		Iver Olsen	©Røros Museum	Pb. 224 7374 Røros, Norway	x
26	Bergmannsgata	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
27	Narrow passage	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
28	Winter	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
29	Winter		Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
30	From the church tower	2005	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
31	C. Borchgrevink's house	2007	Ingrid Melgård	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
32	C.Borchgrevink's house	2007	Ingrid Melgård	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
33	Drawing; D.I. Sonerud	1983				
34	Rasmusgården	1914	Iver Olsen	©Røros Museum	Pb. 224 7374 Røros, Norway	x
35	Rasmusgården	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
36	Rasmusgården		Drawing; Sverre A. Ødegaard	©Røros Museum	Pb. 2224 7374 Røros, Norway	x
37	Rasmusgården, courtyard	2007	Roy Åge Håpnes	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
38	Kjerkgata	End of 19th C		©Røros Museum	Pb. 2224 7374 Røros, Norway	x
39	Kjerkgata	1869	Elen Schomragh	©Røros Museum	Pb. 224 7374 Røros, Norway	x
40	Kjerkgata, desember 2008	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
41	Sleggveien	2007	Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
42	Sleggveien	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
43	Tyri Myren	1933		©Røros Museum	Pb. 2224 7374 Røros, Norway	x
44	Tyristuggu	2007	Roy Åge Håpnes	©Riksantikvaren	Pd 8196 dep. 0034 Oslo, Norway	x
45	Sleggveien	1996	Jiri Havran	©Jiri Havran	Pb. 5360 Majorstua 0304 Oslo, Norway	
46	Transporting hay	1972	Sverre Ødegaard	© Røros Museum	Pb. 224 7374 Røros, Norway	x
47	Cattle in the street	About 1950		©Røros Museum	Pb. 224 7374 Røros, Norway	x
48	Grazing cattle	2003	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
49	Reindeer moss		Jon Suul	©Jon Suul	Pb. 253 Røros 7364 Røros, Norway	x
50	Transporting moss		Iver Olsen	©Røros Museum	Pb. 224 7374 Røros, Norway	x
51	Transporting hay			©Røros Museum	Pb. 224 7374 Røros, Norway	x
52	Bogs			©Røros Museum	Pb. 224 7374 Røros, Norway	x
53	Hay sheds	2006	Lisen Roll	©Riksantikvaren	Pd 8196 dep. 0034 Oslo, Norway	x
54	The town from the air	2005	Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
55	Stormohaga	1954	Fjellanger Widerøe	©Fjellanger Widerøe A/S	Sorgenfriveien 9 7037 Trondheim, Norway	
56	Stormohaga	2005	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
57	Åsvollen	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
58	Rasmusvollen		Drawing; Sverre A. Ødegaard	©Røros Museum	Pb. 224 7374 Røros, Norway	x
59	Rasmusvollen	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
60	Rasmusvollen	2005	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
61	Storwartz	2006	Alexander Austnes	©Røros Museum	Pb. 224 7374 Røros, Norway	x
62	Storwartz	2007	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
63	Storwartz	2006	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
64	Lower Storwartz	2005	Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
65	Cableway	2006	Alexander Austnes	©Røros Museum	Pb. 224 7374 Røros, Norway	x
66	Storwartz	2007	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
67	Storwartz	2004	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
68	Storwartz	2007	Jon Holm Lillegjelten	©Røros Museum	Pb. 224 7374 Røros, Norway	x
69	Map of Storwartz mines 1694		Røros Kobber-verk arkiv	©Røros Museum	Pb. 2224 7374 Røros, Norway	x
70	Christianus Sextus	2006	Lisen Roll	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
71	Christianus Sextus	2006	Lisen Roll	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
72	Muggruva	2005	Ole Jørgen Kjellmark	©Ole Jørgen Kjellmark	7374 Røros, Norway	x
73	Miners	About 1940	Alf Sandnes	©Røros Museum	Pb. 224 7374 Røros, Norway	x
74	Harborg railway station	1877		©Røros Museum	Pb. 224 7374 Røros, Norway	x
75	Arvedalslina	About 1900	Iver Olsen	©Røros Museum	Pb. 224 7374 Røros, Norway	x
76	Kuråsfossen power station	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
77	Femundshytta, the play town	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
78	Femundshytta, the play town	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
79	Femundshytta	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
80	Femundshytta	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
81	Winter Transport Route	2003	Stefan Quinth	©Stefan Quinth	Camera Q Slottet 530 10 Vedum, Sweden	
82	Winter Transport Route	2003	Stefan Quinth	©Stefan Quinth	Camera Q Slottet 530 10 Vedum, Sweden	

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
83	Winter Transport Route	2003	Stefan Quinth	©Stefan Quinth	Camera Q Slottet 530 10 Vedum, Sweden	
84	Korssjøen farms	2001	Trond Taugbøl	©Riksantikvaren	Pb. 8196, 0034 Oslo, Norway	x
85	Winter Transport Route	2003	Stefan Quinth	©Stefan Quinth	Camera Q Slottet, 530 10 Vedum, Sweden	
86	Water chute		Amund Spangen	©Amund Spangen	Mælan 52 7374 Røros, Norway	
87	Tolga	2008	Lisen Roll	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
88	Feragen	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
89	Rauhåmåren	2005	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
90	Eidet	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
91	Eidet	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
92	Eidet	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
93	Hiort-Engan	2008	Bård Langvandslien	©Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
94	Sølendet		Amund Spangen	©Amund Spangen	Mælan 52 7374 Røros, Norway	
95	Sami and reindeer at the winter fair	2000	Marit Ose	©Marit Ose	Hjulmakerveien 22 7374 Røros, Norway	x
96	Sami visiting town		Iver Olsen	©Røros Museum	Pb. 224 7374 Røros, Norway	x
97	Slaughtering reindeer	1930s		©Røros Museum	Pb. 224, 7374 Røros, Norway	x
98	Sami with reindeer		Iver Olsen	©Røros Museum	Pb. 224, 7374 Røros, Norway	x
99	Winter fair	2008	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
100	Ratvolden	2005	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
101	Painting by Harald Sohlberg	1904	Jacques Lathion	©Nasjonalmuseet for kunst, Arkitektur og design, Norge	Pb. 7014 St. Olavs plass 0130 Oslo, Norway	

Id. no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non exclusive cession of rights
102	The Sohlberg row of houses	1999	Trond Taugbøl	© Riksantikvaren	Pb. 8196 0034 Oslo, Norway	x
103	Painting by Harald Sohlberg	1904		©Trondheim Kunstmuseum	Bispegata 7b 7013 Trondheim, Norway	
104	Rørospols dance	2008	Helge Christie	©Helge Christie	2540 Tolga, Norway	x
105	Craftsmen	2007	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
106	Craftsmen	2007	Torbjørn Eggen	©Torbjørn Eggen	Røros kommune Postuttak B 7361 Røros, Norway	x
107	Children in Flanderborg	1915		©Røros Museum	Pb. 224 7374 Røros, Norway	x
108	Children i Sleggveien	2007	Anniken C. Mohr	©Anniken C. Mohr	Rosteds gate 6 0178 Oslo, Norway	

7b Text relating to the management of the Property

Annex 3: Management Framework and Plans

Annex 4: Statement of Intent

7c Most recent records and inventory of the Property

In connection with the preparation of this nomination dossier the following background material and reports have been prepared especially.

- Marie Louise Anker, *Prosjekt «Avgrensing, vern og forvalting av verdensarv Røros» – Sluttrapport (2001)* (Project on the delimitation, protection and management of the World Heritage Site Røros Mining Town).

- Kirsti Jordet, *Særtrekk ved kobberverksdrifta ca. 1630-1890 (2003)* (Distinctive features of operations at the copper works, from approximately 1630 to 1890). The report deals with relations between the Røros Copper Works and the rural settlements in Nordøsterdal. This forms part of the project mentioned above.

- Torfinn Rohde, *Naturverdier i Circumferensen (Naturitas 2007)* (Values in the natural environment in the Circumference). This deals with the natural environment and the work on protection inside the Circumference pursuant to the Nature Conservation Act. Protection of the watercourses also plays a central role in this report.

- Jenny Fjellheim, *Det samiske perspektivet i verdensarven Røros (Røros Museum 2007)* (The Sámi perspective in the World Heritage Site Røros Mining Town). This deals with the importance of the Sámi and Sámi reindeer husbandry for the community at Røros throughout the period from the establishment of the copper works to the present time.

- Bjørn Ivar Berg, *Vurdering av Rørosgruvene som kulturminner (2007)* (The evaluation of the mines at Røros as cultural heritage). This focuses on placing the mines in the cultural heritage complex formed by the historic mines as a whole, including the mining town of Røros.

- Arne Espelund: *Fra berggrunn og jordsmonn i Rørostraktom* (ISBN 82-996953-0-9) (From rock and earth in the Røros region). A general presentation of mining and metallurgy in the Røros region. The book is based on a report compiled for the Directorate for Cultural Heritage that has been considerably expanded.

- Magne Fjæran, *Bergstaden – en kulturhistorisk steds- og landskapsanalyse (Røros kommune 2006)* (Røros – a cultural-historic analysis of town and landscape). This shows the gradual growth of the mining town and analyses the different values in the area as a basis for planning.

- Kjell Andresen and Marie Louise Anker, *Utvidelse av verdensarvområdet på Røros – Arbeidsnotat fra «omegnsgruppa», (Riksantikvaren, Directorate for Cultural Heritage, 2007)* (Extension of the world heritage area at Røros) Memorandum from the «extension group».

- Dr. Jukka Jokilehto, *Røros, Mining Town, extension. Observations following the mission, 23.-26. September 2007*. (Memorandum 27.09.2007)

- Eigil Iversen, *Forurensningssituasjonen ved gruver og smeltehytter innenfor Circumferensen – Rørosfeltet* (Pollution situation at mines and smelters inside the Circumference – the Røros area). Memorandum, NIVA 2008.

- Jon Holm Lillegjelten, *Oversikt over synlige kulturminner i Storwartzområdet – Rapport fra Rørosmuseet etter oppdrag fra Riksantikvaren april 2008*. (Cultural heritage at the Storwartz Mines). Memorandum. Røros Museum.

7d Address where inventory, records and archives are held

Riksarkivet (National Archives of Norway)
PO Box 4013 Ullevål Stadion, NO-0806 Oslo

Statsarkivet i Trondheim (Regional State Archives)
PO Box 2825 Elgesæter, NO-7432 Trondheim

Riksantikvaren (Directorate for Cultural Heritage)
PO Box 8196 Dep, NO-0034 Oslo

Direktoratet for naturforvaltning (Directorate for Nature Management)
Tungasletta 2, NO-7485 Trondheim

Hedmark fylkeskommune (Hedmark County Authority)
Kulturvernseksjonen, Parkgt. 64, NO-2325 Hamar

Sør-Trøndelag fylkeskommune (Sør-Trøndelag County Authority)
Regional utvikling, Fylkeshuset, Postuttak, NO-7004 Trondheim

Rørosmuseet (Røros Museum)
PO Box 224, NO-7374 Røros

Nordøsterdalsmuseet (Nordøsterdal Museum)
Museumssenteret Ramsmoen, Kongsveien 6, 2500 Tynset

Røros kommune (Røros Municipality)
Postuttak B, NO-7361 Røros

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See also *7c Recent Record and Inventory of the Property*

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8b Official Local Institution/Agency

Town and Cultural Landscapes and Winter Transport Route, northern section

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Holtålen kommune (Holtålen Municipality)
7380 Ålen, NORWAY

Sør-Trøndelag fylkeskommune (Sør-Trøndelag County Authority)
Regional utvikling
Fylkeshuset
Postuttak
7004 Trondheim, NORWAY
Contact: Marie Louise Anker,
E-mail: marie.louise.anker@stfk.no

Winter Transport Route, southern section

Os kommune (Os Municipality)
Rytrøa 14
2550 Os i Østerdalen, NORWAY

Hedmark fylkeskommune (Hedmark County Authority)
Kulturvernseksjonen
Parkgt. 64
2325 Hamar, NORWAY
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E-mail: elisabeth.seip@hedmark.org

Femundshytta

Engerdal kommune (Engerdal Municipality)
Box 27
2440 Engerdal, NORWAY

Hedmark fylkeskommune (Hedmark County Authority)
Kulturvernseksjonen
Parkgt. 64
2325 Hamar. NORWAY
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E-mail: elisabeth.seip@hedmark.org

8c Other Local Institutions

Rørosmuseet

Box 224
7374 Røros
NORWAY
E-mail: museumspost@rorosmuseet.no

Nordøsterdalsmuseet

Museumssenteret Ramsmoen
Kongsveien 6
2500 Tynset
NORWAY
E-mail: mus-rams@online.no

Røros Reiseliv

Peder Hiortgata 2
7374 Røros
NORWAY
E-mail: post@rorosinfo.com

8d Official Web address

Røros Museum

The website has a comprehensive history of the world heritage site Røros Mining Town and the proposed extension in Norwegian and in English
www.verdensarvenroros.no
www.worldheritageroros.no

Riksantikvaren Directorate for Cultural Heritage

The website of the Directorate has a description of the present world heritage site in Norwegian and English, and an up to date report on the progress of work with the extension in Norwegian.
www.riksantikvaren.no

9 Signature on behalf of the State Party

Oslo, 27 January 2009

Erik Solheim
Minister of the Environment
Norway


Røros Mining Town and the Circumference
Trondheim
Røros
Falun
Bergen
Oslo
Kongsberg
Stockholm
N
0
100
200 Kilometers

Røros Mining Town and the Circumference

Administrative borders
- Municipality border
- County border
- National border
- Storwartz, centerpoint of the Circumference

Circumference
- Norway
- Sweden
- Present Røros WHS
- Proposed extension of the WHS
- Main road
- Railway

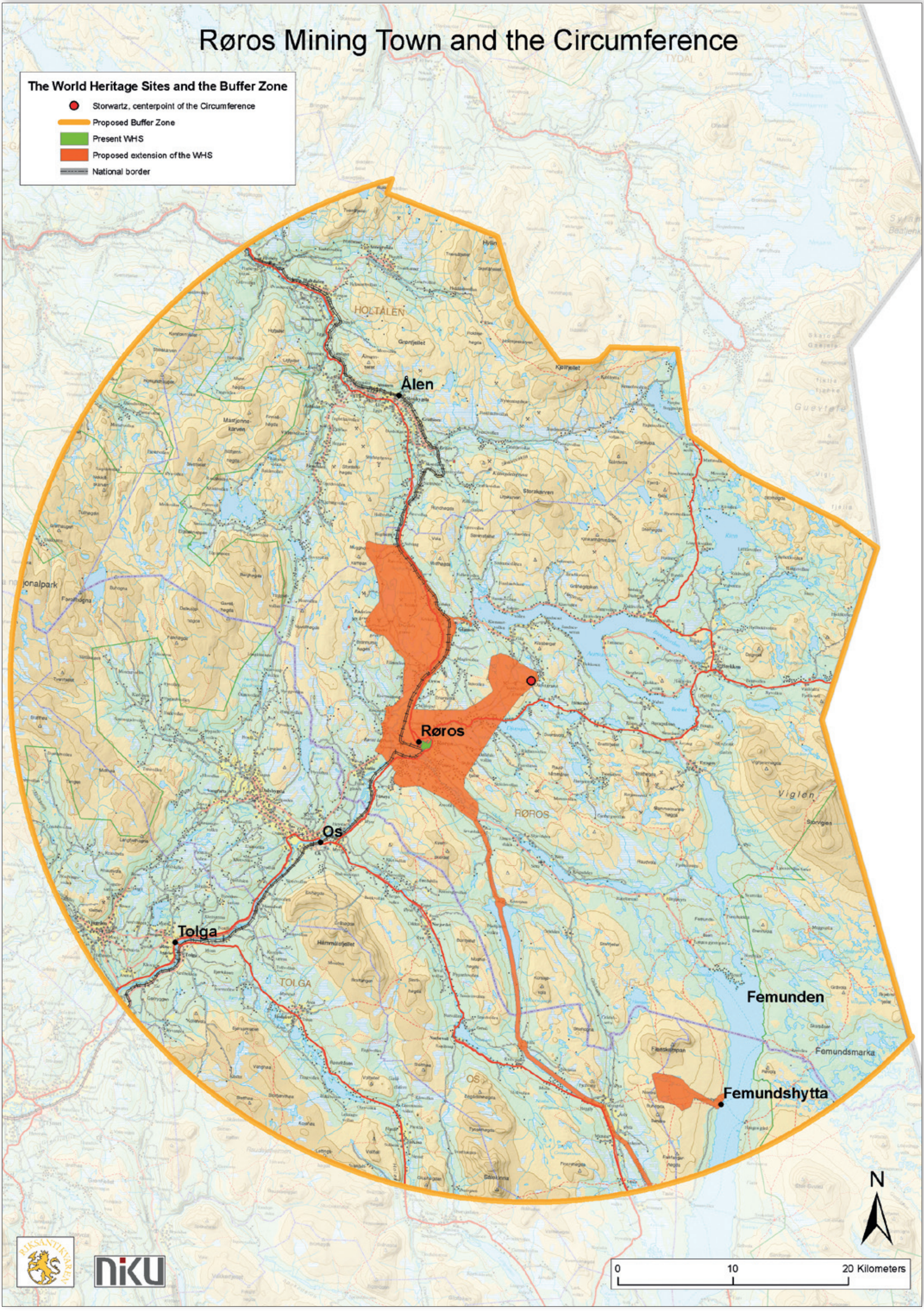
MELHUS
AULDAL
RENNEBU
TYDAL
HOLTÅLEN
RØROS
OS
TOLGA
TYNSET
FOLLDAL
ENGERDAL

RIKSANTIKVAREN
NIKU

N

0 10 20 Kilometers

Røros Mining Town and the Circumference



Røros Mining Town and the Circumference

The Town and Cultural Landscapes

- Present WHS
- Proposed extension of the WHS

0 2 4 Kilometers

N

Røros Mining Town and the Circumference

Røros Mining Town and the Circumference

The Winter Transport Route
The Femundshytta Smelter

Proposed extension of the WHS

Winter Transport Route

Circumference

Femundshytta

Flenskampan

N

0 2,5 5 Kilometers

RIKSANTIKVAREN

NIKU

Røros Mining Town and the Circumference

Røros Mining Town and the Circumference

Bedrock map

- Norway
- Sweden
- Sandstone
- Conglomerate, sedimentary breccia
- Slate, sandstone, limestone
- Diorite, monzodiorite
- Rhyolite, rhyodacite, dacite
- Volcanic rocks (unspecified)
- Gabbro, amphibolite
- Keratophyre
- Quartz-diorite, tonalite, trondhjemite
- Olivine rock (Dunite)
- Amphibolite and mica schist
- Greenstone, amphibolite
- Metasandstone, slate
- Quarzite
- Mica gneiss
- Phyllite, mica schist
- Calcareous mica schist
- Marble
- Dioritic gneiss, foliated granite
- Augen gneiss, granite

Ålen
Glåmos
Aursunden
Brekken
Røros
Os
Tolga
Korsjøen
Femunden
Tufsingdal
Femundshytta

RIKSANTIKVAREN
NIKU

N

0 10 20 Kilometers

Røros Mining Town and the Circumference

Mines and smelters

- Mines
- Smelter
- Proposed extension of the WHS

Bukkåmmårgruva
Leseth
Skjellågruva
Hultra
Allergott
Grønskaret
Grønskaret
Tamlaget
Holdsjøgruva
Kårslått
Dragås/Eidet
Gamle Folldals gruve
Kjøli
Rognsa
Rognsa
Svenskmenna
Rørosmenna
Pålsgruva/Hessdalsgruva
Storvollen
Storhøgda
Bjørgåsen
Killingdal
Skardgruva
Molingdalen
Klinkeberg
Mugggruva
Fjellsjø gruve
Nygruva Hessjøfeltet
Hessjøgruva
Kongens
Glåmos
Aursunden
Gruvsjøgruva
Oskars sjakt
Arvedals
Brekken
Lergruvbakken
Ormhaugen hytte
Storwartz
Fossgruva
Røros
Røros
Raudhåmmåren
Wessel
Feragen
Myrtle
Galåen
Leighgruva
Fredericus Quartus gave
Os
Nøren hytte
Grønvola
Tolga smeltehytte
Korsjøen
Femunden
Tufsingdal
Femundshytta
Femundshytta
Tufsingdal

N

0 10 20 Kilometers

RIKSANTIKVAREN

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Røros Mining Town and the Circumference

Protected Sites according to the Cultural Heritage Act

- Protected Sami Cultural Heritage Sites older than 100 years
- Protected Archaeological Cultural Heritage Sites older than 1537
- Present Røros WHS
- Proposed extension of the WHS

Circumference

- Norway
- Sweden

Ålen
Glåmos
Aursunden
Brekken
Røros
Os
Tolga
Korsjøen
Femunden
Tufsingdal
Femundshytta

N

0 10 20 Kilometers

RIKSANTIKVAREN

NIKU

Røros Mining Town and the Circumference

Protected areas according to the Nature Conservation Act

Circumference
- Norway
- Sweden

Preserved areas
- National park
- Nature reserve
- Protected Landscape

Henfallet
Bredmyra
Nedalen
Ledalen
Ålen
Forddalen
Oyungen
Budalen
Forollhogna
Finnfjæren
Molinga
Glåmos
Sakrisodden
Aursunden
Solendet
Brekken
Vangroftdalen-Kjutrudalen
Storfloen
Kvitsanden
Røros
Storflotjonna
Londalen-Orvildalen
Os
Langtjonna
Clafloen
Korsjøen
Tolga
Bjoreggene
Femundsmarka
Femunden
Lille Korssjoen
Gammeldalen
Telvanglia
Hodalen
Galådalen
Tufsingdal
Femundshytta
Femundslia
Tufsingdalseskeren
Tufsingdalseskeren

N

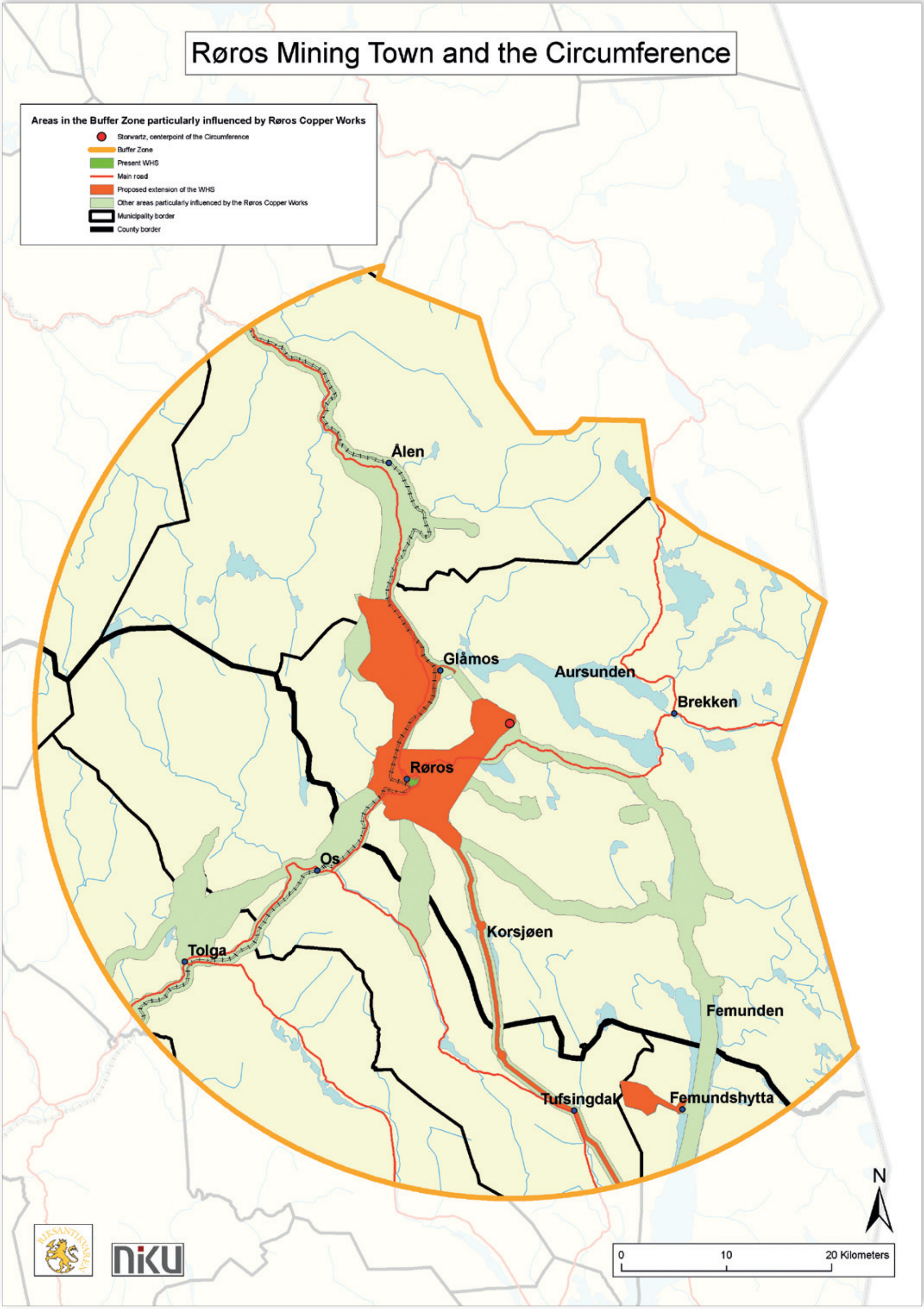
0 5 10 Kilometers

RIKSANTIKVAREN

NIKU

Røros Mining Town and the Circumference

Røros Mining Town and the Circumference



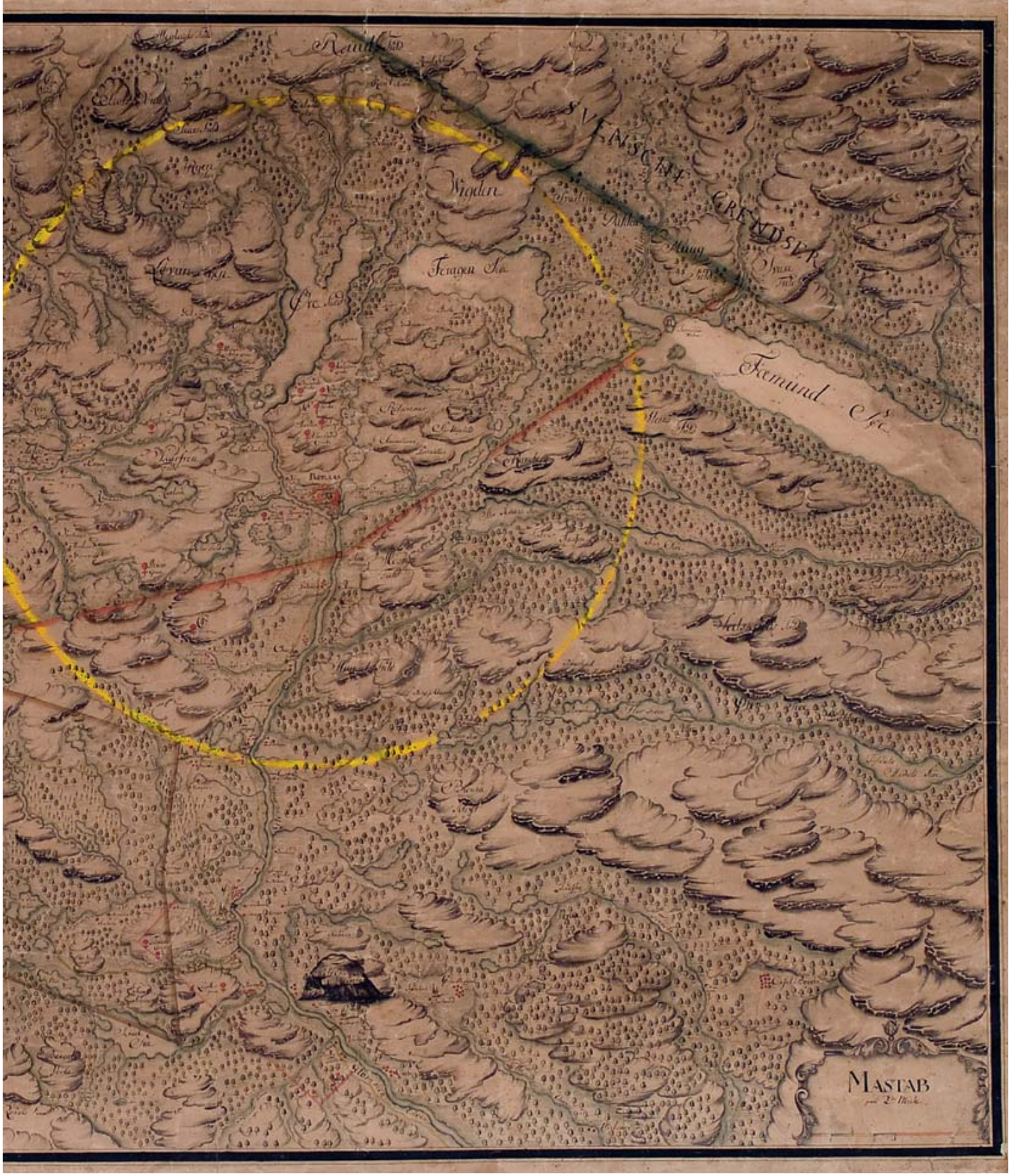
Røros Mining Town and the Circumference

Røros Mining Town and the Circumference

Norwegian Nomination 2009 for extension of WHS Røros Mining Town

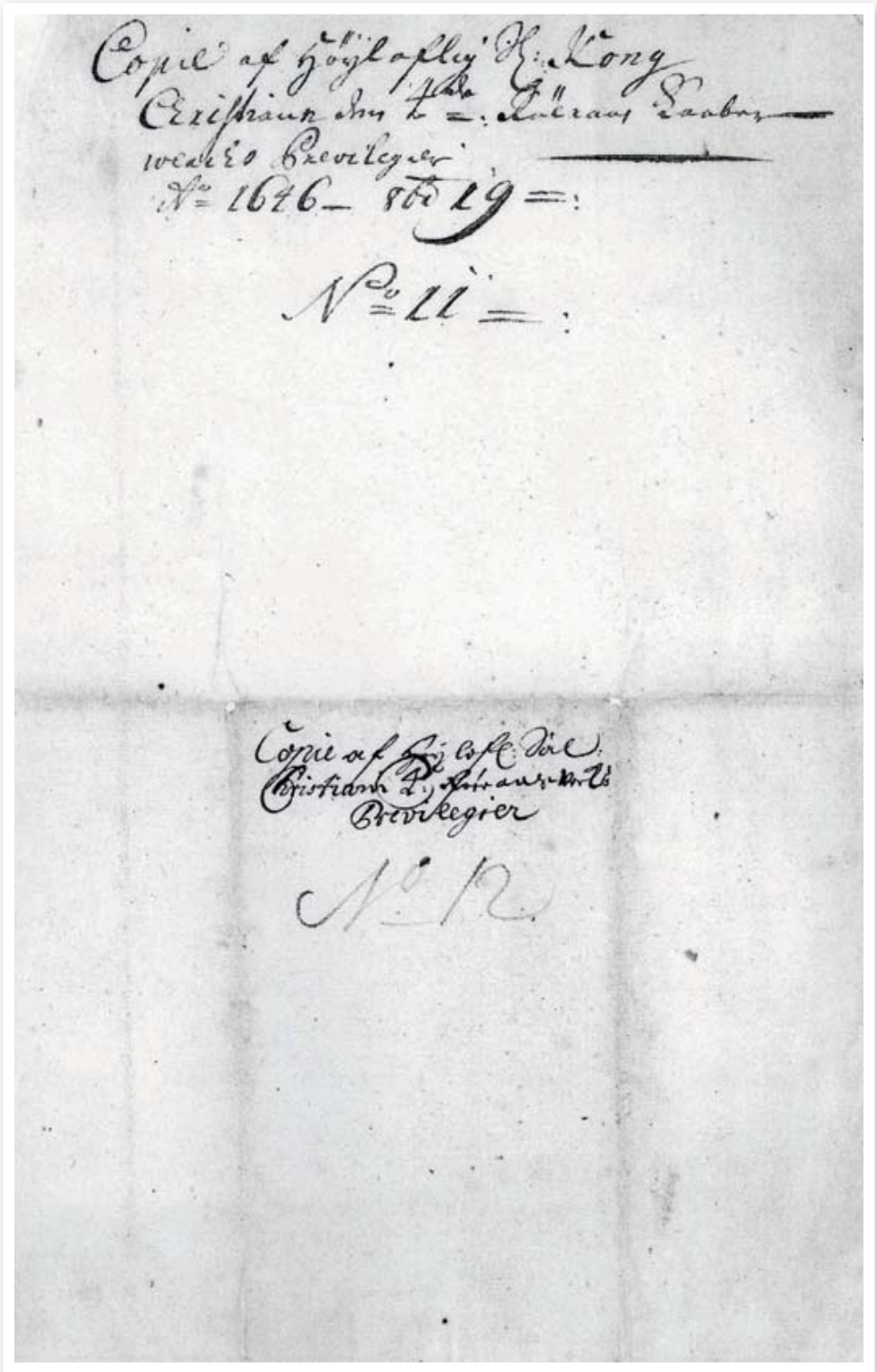
Photographs


Selboe Sioe
AASEN
Dofsre
SITUATIONS CART
I. TRUNDHIEM
TRUNDHIEM
II. RORAAS,
QVICKNE LOCKENS
III. FAADALS SELBOE
IV. RORAAS QVICKNE
V. TRUNDHIEM

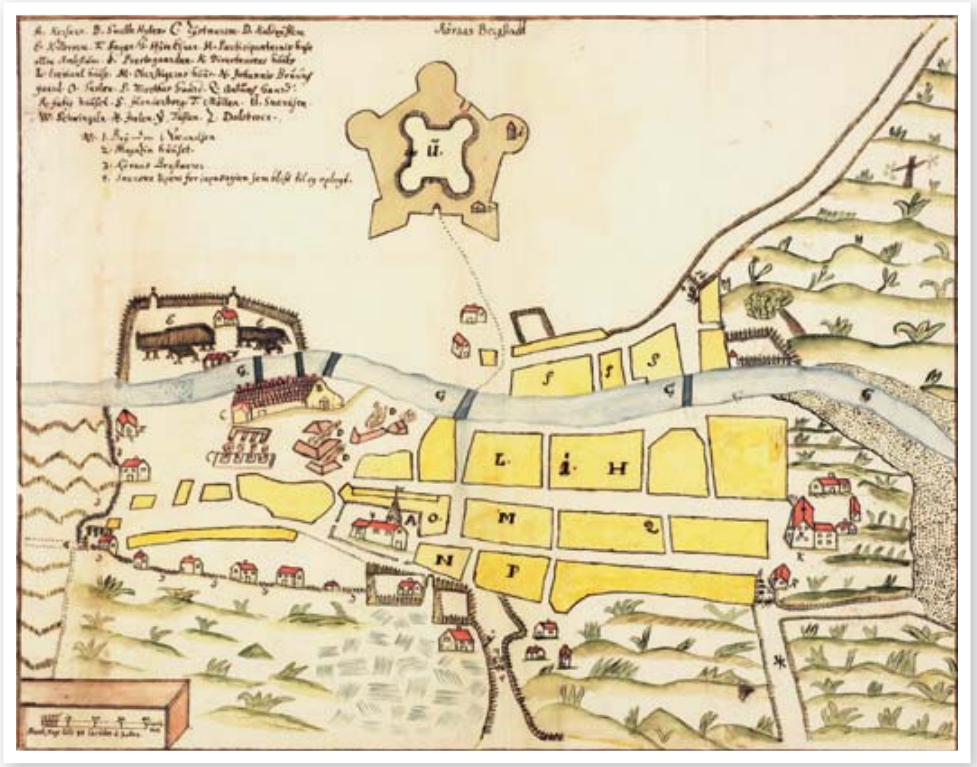


The Town

1–2: Map from 1737 showing the areas of privileges belonging to the copper works at Løkken and Røros as circumferences. The area belonging to the copper works at Kvikne is shown as a rectangle.

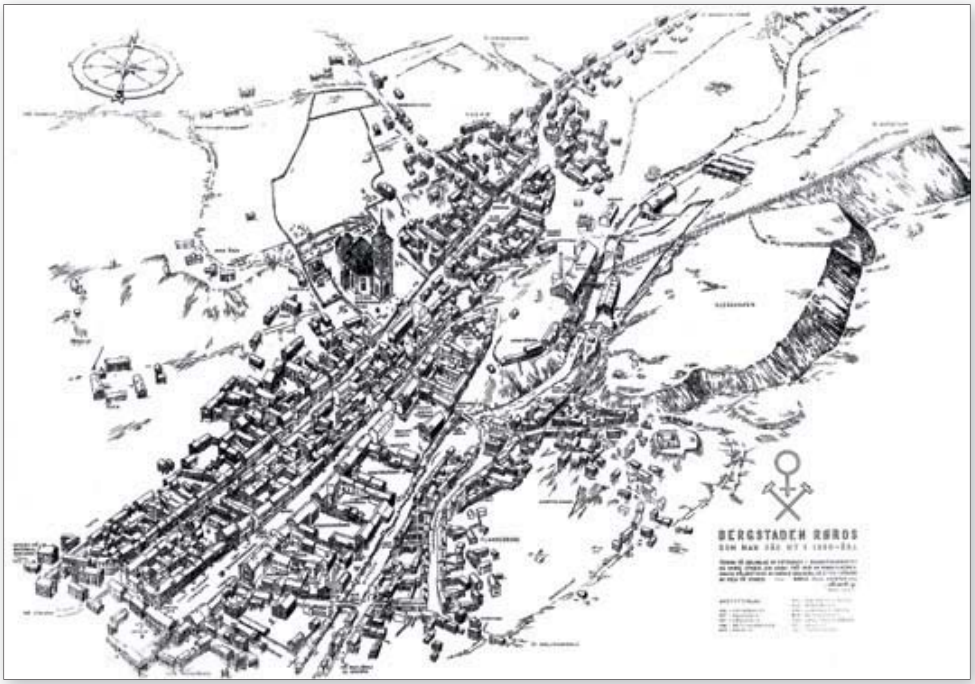


3: The letter of privileges signed by King Christian IV of Denmark-Norway in 1646.



4: Map of Røros Mining Town, 1711.
A: Church, B: Smelter, K: Director's residence, R: House for the poor.

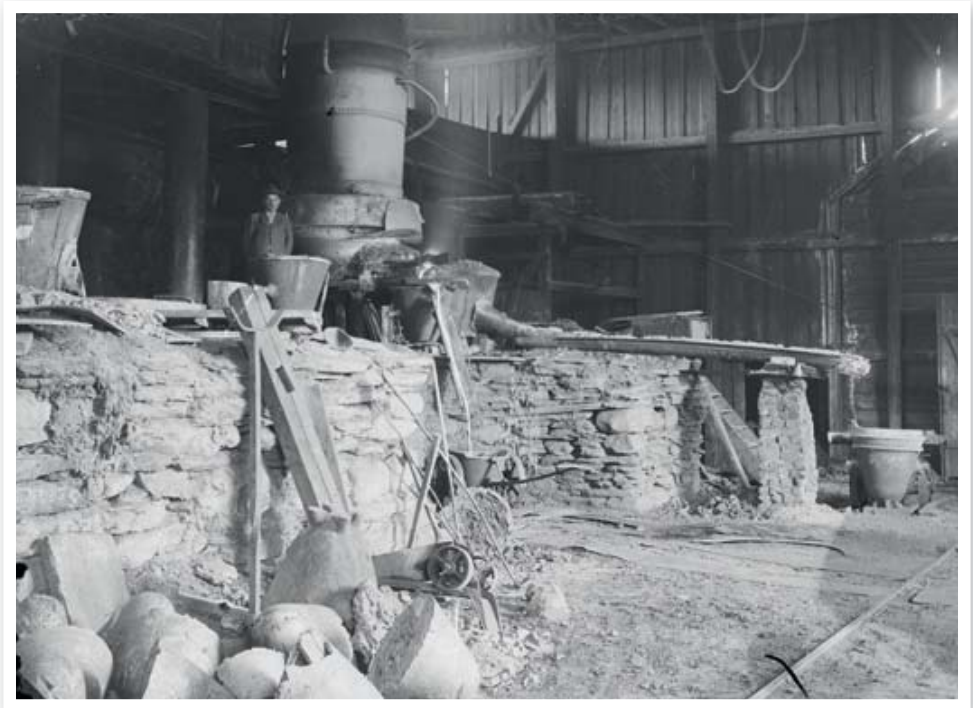
6: The town in winter.



5: Røros Mining Town about 1890. Drawing by Arne Berg.

7: The town and surrounding landscape.

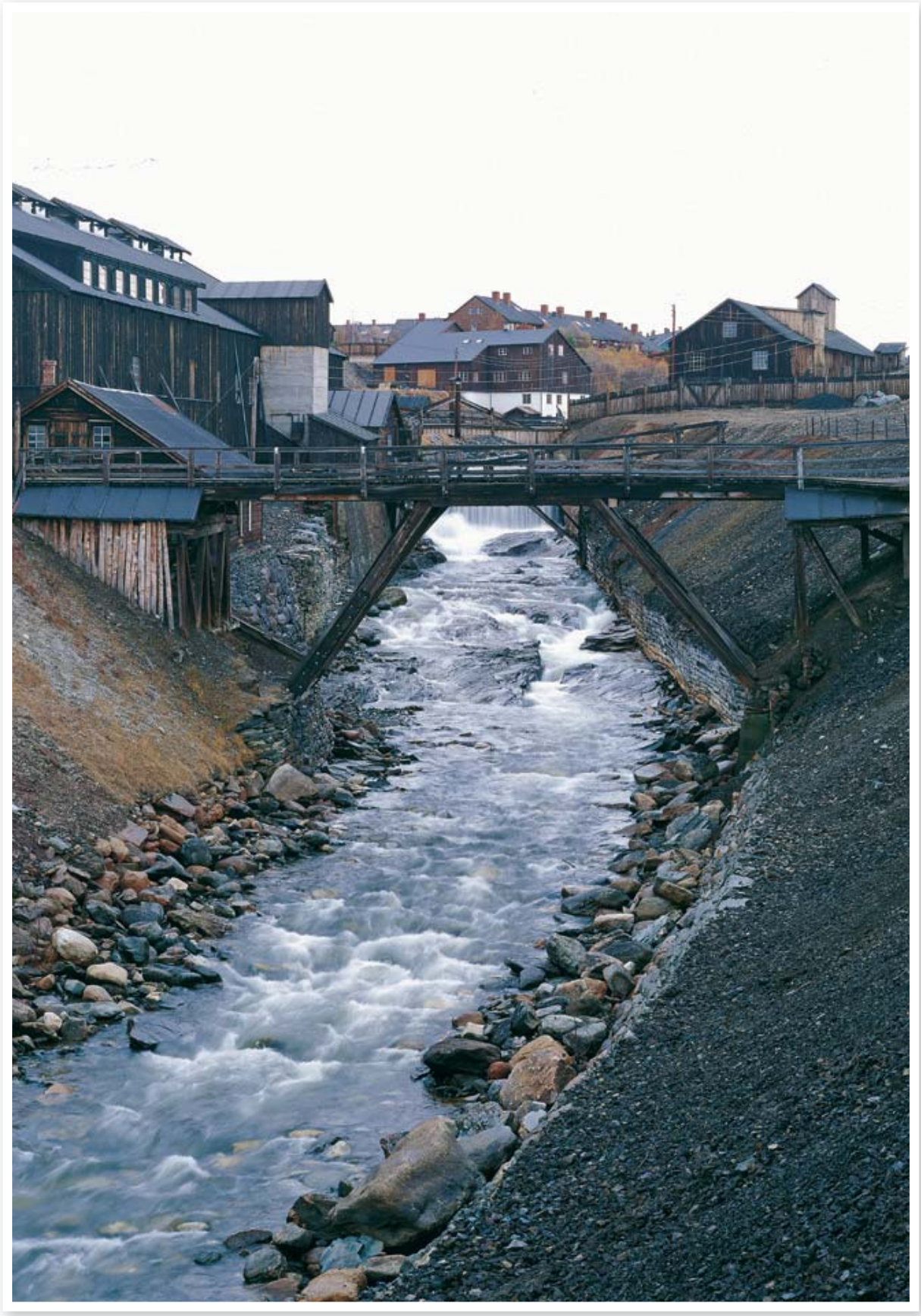
8: The Røros smelter at work 1907.



9: Inside the smelting house at Røros.

10: Malmplassen square with the slagheaps and the Småsetran summer grazing farms in the background.

11: Hitterelva river frozen in winter.



12: Hitterelva river by the smelting house.

13: Hitterelva river by the smelting house.

14: Street with the snow-covered slagheaps in the background.

15: The church, Malmplassen square and the slagheaps, Småsetran summer grazing farms in the background.

17: View from the slagheaps east of the Hitterelva river. Sleggveien ("Slag road") in the foreground.

16: The copper works' bell at Malmplassen square.

18: View from the slagheaps east of the Hitterelva river.

19: Røros church (finished 1784).

20: Røros church.

21: The Hiort chapel. Grave of the director of Røros Copper Works Peder Hiort. (Died 1789).

22: The Hiort chapel.

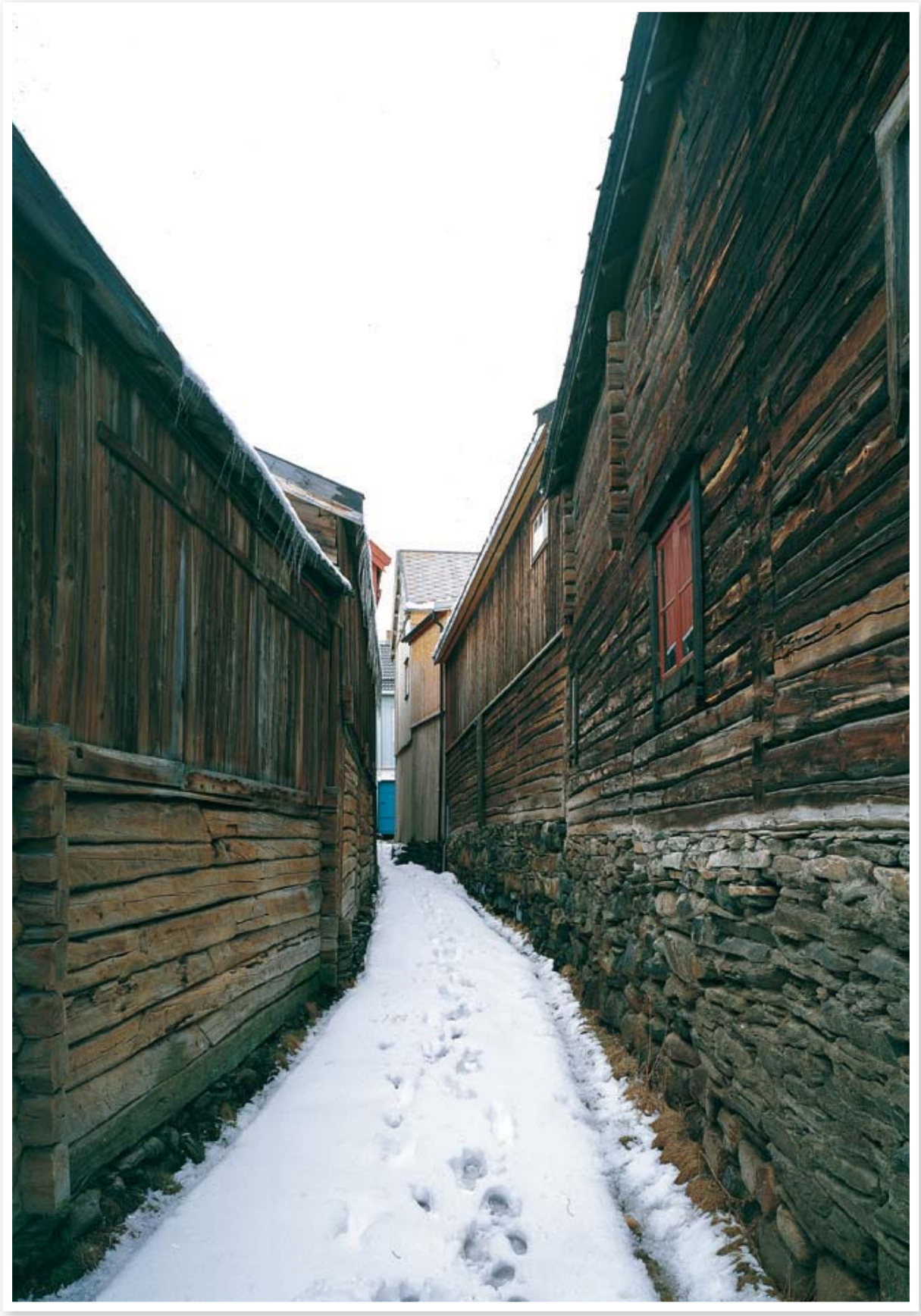
23: The Hiort chapel.

24: Bergmannsgata – one of the two main streets around 1870, seen from the southern end.

25: Bergmannsgata – seen from the north.

26: Bergmannsgata today – seen from the southern end.

30: The two main streets seen from the church tower.



27: One of the narrow passages between the streets.

32: Catharina Borchgrevink's house – detail.

33: Catharina Borchgrevink's house – plan of the house and outbuildings.

31: Catharina Borchgrevink's house – residence of the bourgeoisie. Presently used as town hall.

34: Rasmusgården – a miner's house. No. 2 from the left.
(The building to the far left was moved to a museum in Trondheim in 1924).

35: Rasmusgården today

36: Rasmusgården with outbuildings: cowshed, owner's stable and stable for travellers. Hayloft on the first floor. Drawing by Sverre Ødegaard.

37: Rasmusgården seen from the courtyard. The kitchen is in the extension.

38: Kjerkgata – one of the two main streets towards the end of the 19th Century.

39: Kjerkgata - one of the two main streets about 1870.

40: Kjerkgata – 10 December 2008, minus 20° C

28

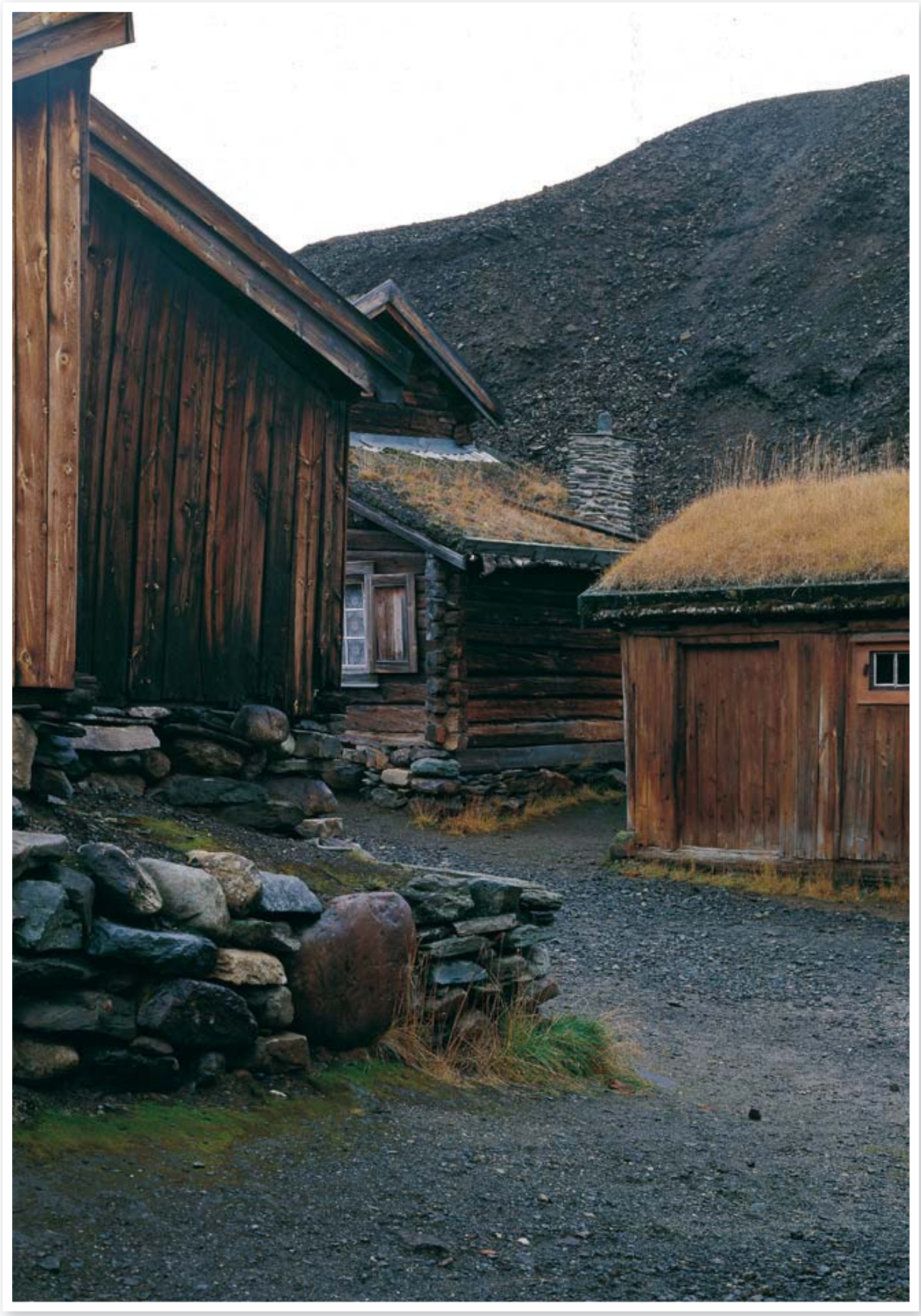
41: Sleggveien – ("Slag road") on the east side of the Hitterelva river.

43: Tyri Myren in front of her house. She lived there until her death in 1937.

42: Sleggveien seen from the slagheaps. Tyristuggu (Tyri's house) is no. 2 from the left.

44: Tyristuggu, today a part of Røros Museum.

29



45: The slagheaps with Sleggveien and Tyristuggu in front .

Urban Agriculture

47: Cattle in Kjerkgata on the way to the summer grazing farm about 1950.

48: "Røros cattle" grazing on the plots of land by the town after the hay has been harvested, autumn 2001. In the background the roof of the smelting house (Røros Museum), the church and a hayshed.

46: Transporting hay from the hay shed outside the town to the barn in the courtyard in town, 1972.

49: Reindeer moss (cladonia stellaris) – winter fodder for cattle and reindeer.

50: The reindeer moss collected during the summer is brought home to the courtyard in town during the winter.

51: Not everybody had a horse to bring in the hay from the hay sheds outside the town.

52: To save wood, peat bogs were opened as a source of fuel and heating of the miners' houses. Photo about 1916.

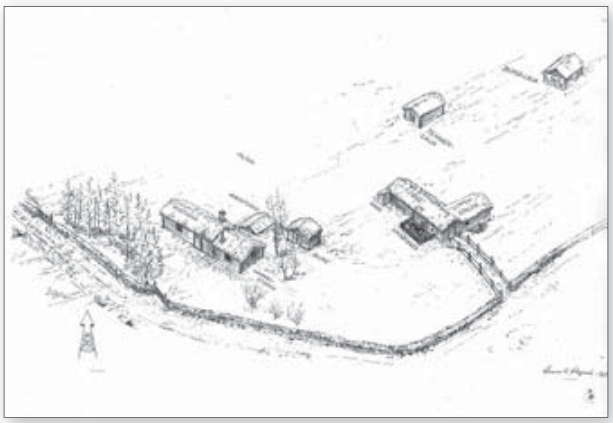
55: Stormohaga 1954.

56: Stormohaga today. The airport in the foreground.

54: Småsetran summer grazing farms in the foreground.
In the background Stormohaga with small plots of land and hay sheds.

53: Hay sheds in Djupdalshaga east of the town.

57: Åsvollen – summer grazing farm to Åsengården.



58: Rasmusvollen at Stikjilen – summer grazing farm to Rasmusgården. Drawing by Sverre Ødegaard.

59: Rasmusvollen after repair by the Outbuildings Project

60: Rasmusvollen before repair

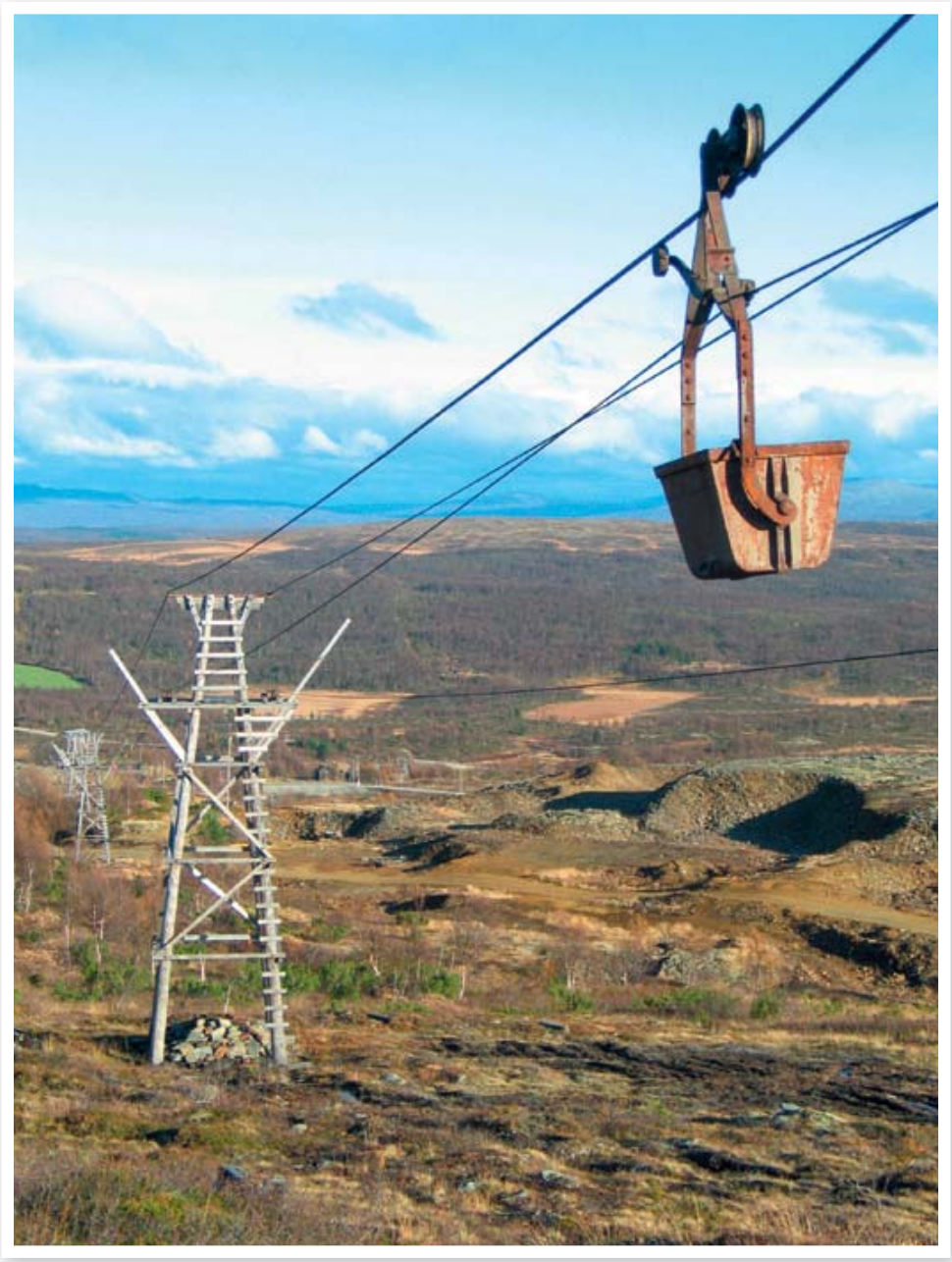
The Mines and the Power Station

62: Cableway at Storwartz.

63: Restoration of the cableway – raising a new pylon.

61: Cableway at Storwartz.

64: Lower Storwartz with the flotation plant.

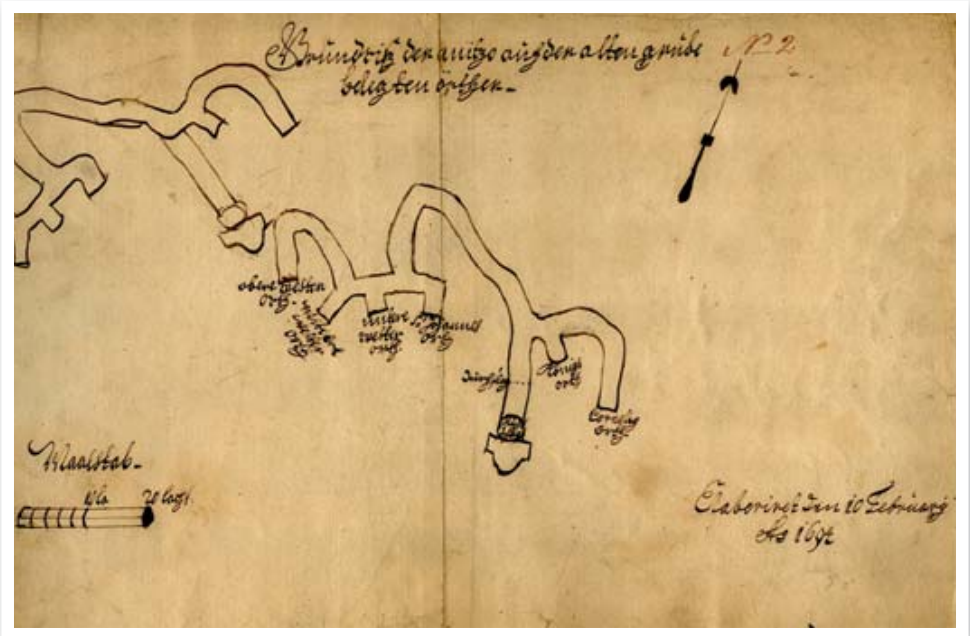


65: The cableway.

66: Upper and Lower Storwartz.

67: The flotation plant at Storwartz.

68: Upper Storwartz.



69: Map of the Storwartz Mines, 1694.

70: Christianus Sextus Mine – ruins of the cableway station.

71: Christianus Sextus Mine – polluted ground under the cableway station.

72: The Muggruva Mine.

73: Miners.

74: Harborg Station 1877– the highest point on the railway track between Røros and Trondheim. Later it became the end station for the cableway from the King's Mine.

75: Arvedalslina – a sidetrack to the main railroad from Oslo via Røros to Trondheim. The track, established 1886, went up the hill to the King's Mine. It was always difficult to keep open in the winter and in 1910 it was replaced by a cableway.

76: Kuråsfossen power station.

The Femundshytta Smelter
Industrial Cultural Landscape

77–78: Femundshytta. The "playtown" made by children in the area. The church and churchyard show similarities to Røros.

79: Lake Femunden with Femundshytta.

80: The ruins of the Femundshytta smelter.

The Winter Transport Route

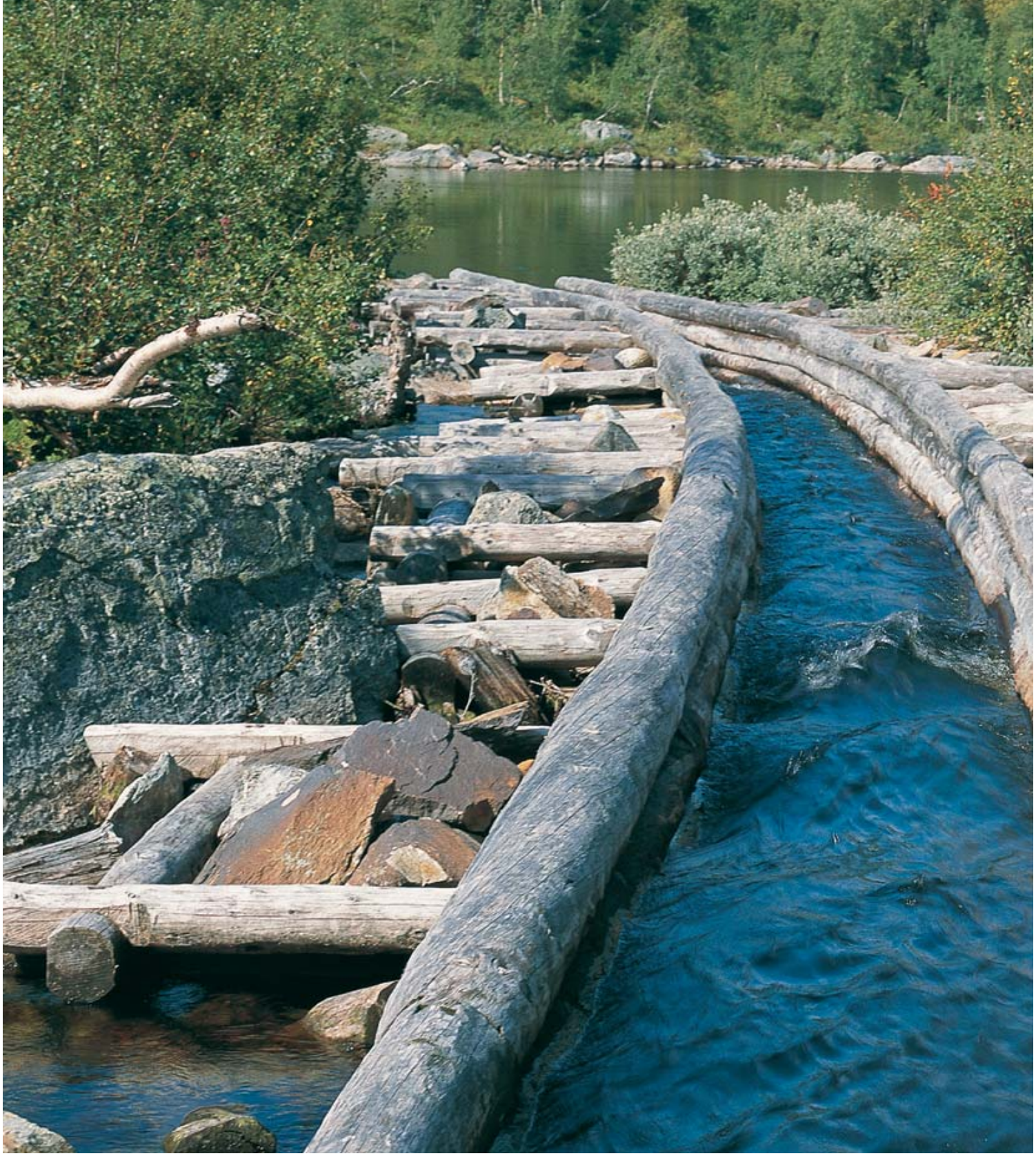
82: Train of horses on Lake Siksjøen.
The farm Holla with stables and accommodation for travellers in the distance.

81: In 2003 a group of people with horses and sledges made the long journey from Falun (Copper mines and World Heritage Site in Sweden) to Røros. They were traditionally equipped, and followed the old winter transport route to the Røros winter fair. Parts of this journey are repeated every year.

83: The Korssjøen farms with stables and accommodation for travellers.

84: One of the Korssjøen farms.

85: Train of horses on Lake Femunden.



The Buffer Zone

86: Water chute between two lakes for floating timber from Lake Femunden to Røros.

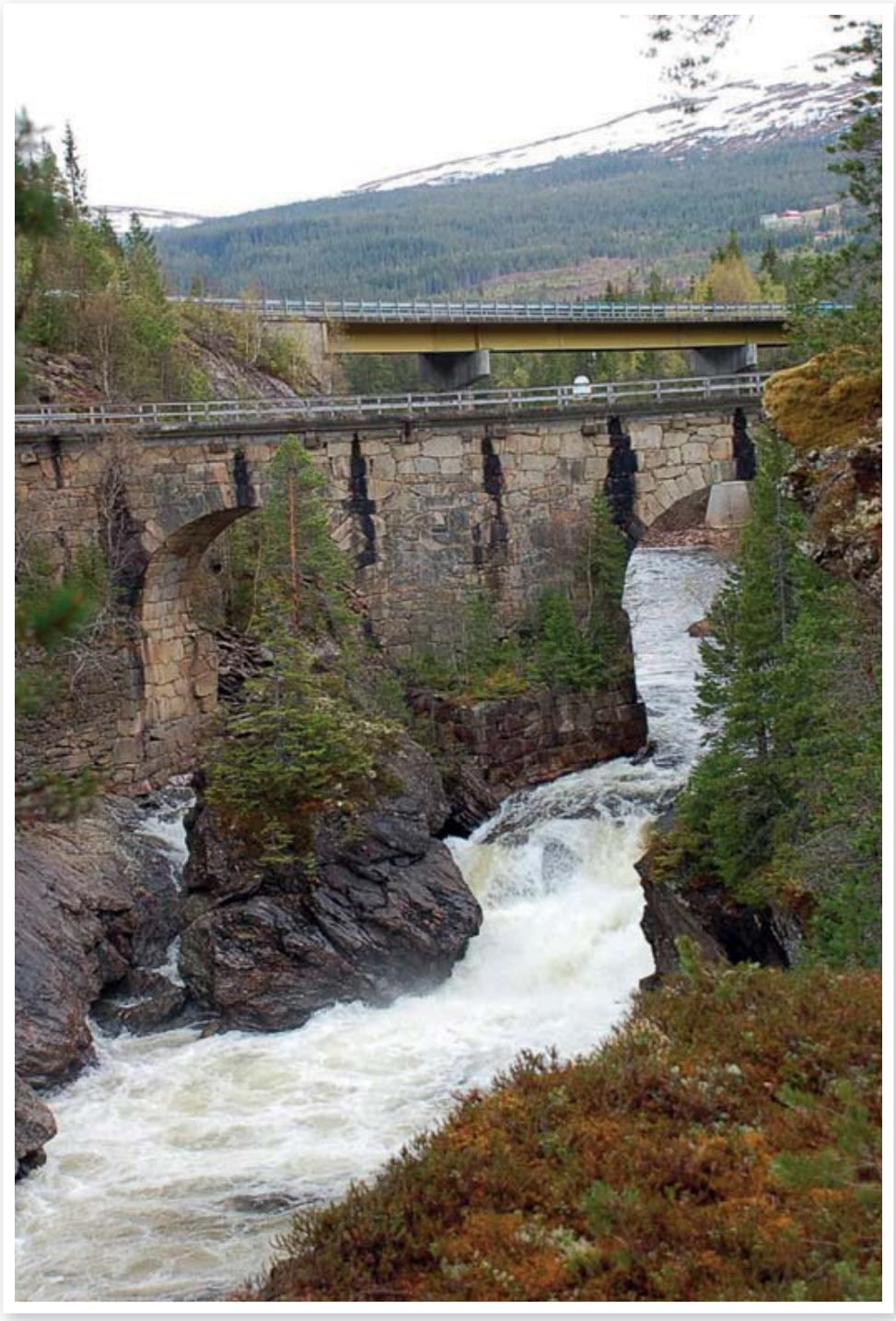
87: In 1670 Røros Copper Works set up a smelter in Tolga. The smelter has been demolished, but the mining settlement exists.

88: Slagheaps from the smelter at Feragen (1661–1692).

89: Rauhåmåren, the first mine, was almost immediately abandoned as not profitable. Today the area shows traces from different periods of mining for copper and chromium.

90: Smelter and slagheaps at Eidet.

91: The smelter at Eidet.



92: Eidet on the main route to Trondheim - always a difficult point to pass.

93: Hay shed in the form of a "church" in Hiort-Engan. Only three hay sheds and traces of a baroque garden are left of this summer residence, built by Peder Hiort, director of Røros Copper Works (1772-1789), and much praised by contemporary visitors.

94: Sølendet – uncultivated meadow and marsh harvested by the farmers in the area. Testimony of how all natural resources were utilised. Today the area is a nature reserve tended in the traditional manner. (Photo July 2002).

People

96: Sámi with reindeer visiting the town.

95: Sámi with reindeer at the winter fair today as before.

97: Slaughtering of reindeer and preparation of the furs.

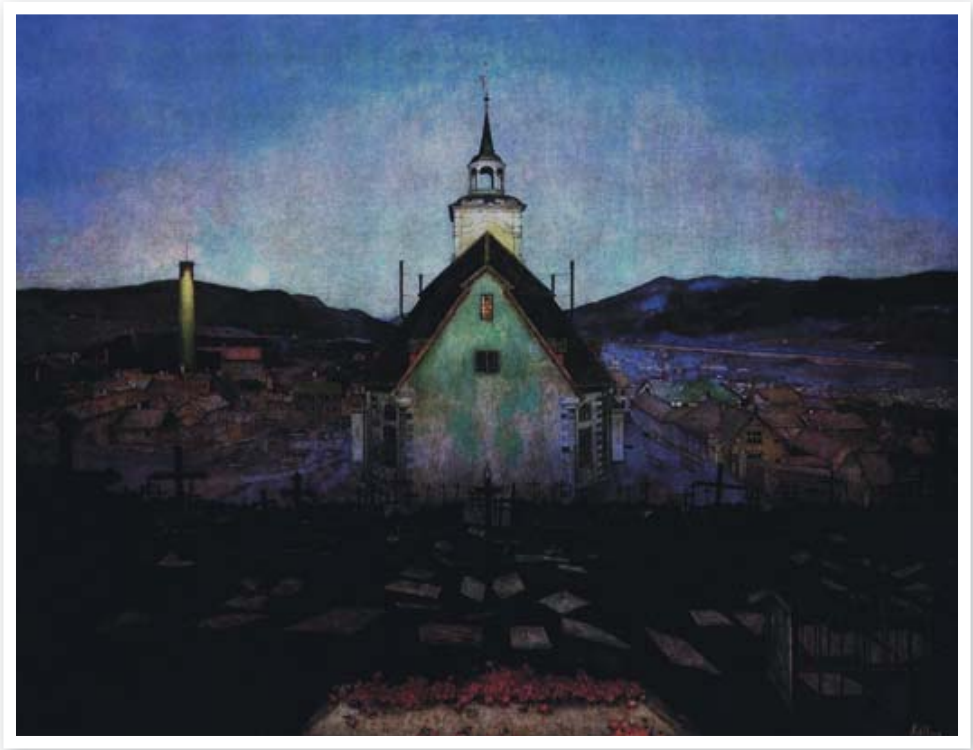
98: Sámi with a flock of reindeer outside the town.

99: People gathered at Malmplassen square for the opening ceremony of the annual winter fair.

100: Ratvolden, home of the author Johan Falkberget.

101: The upper part of Bergmannsgata, by the painter Harald Solberg.

102: The same section of Bergmannsgata today.



103: "Night" by Harald Solberg, 1904.

106: Craftsmen at work for the Outbuildings Project.

105: Craftsmen at work for the Outbuildings Project.

104: The Røros Pols dance 2008.

107: Children in Flanderborg 1915.

108: Children of today in Sleggveien celebrating the project "Adopt a house". Groups of pupils are assigned responsibility for monitoring particular uninhabited houses to prevent vandalism. This successful project is a cooperation between Røros Museum and the school.

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Nomination dossier chapter 7 Documentation/7a Photographers

Røros Mining Town and the Circumference

Norwegian Nomination 2009 for extension of WHS Røros Mining Town

Management Framework and Plans

Contents

1 From the World Heritage Site Røros Mining Town to Røros Mining Town and the Circumference

This document explains the framework for the management of the proposed extension of the world heritage area. It deals with the plans for the next few years. These will be elaborated on and expanded if the World Heritage Committee decides to accept the proposal for the extension. The document will then be replaced by a second generation management plan for the management of the outstanding universal value of Røros Mining Town and the Circumference.

1.1 World Heritage – the most outstanding cultural and natural heritage sites

The Norwegian World Heritage Sites represent the most outstanding cultural and natural heritage in Norway and form part of World Cultural and Natural Heritage. World Heritage constitutes irreplaceable assets – not only for the individual country but for all of mankind. The management of these values is therefore of importance for every human being. It is our responsibility to ensure that these values are also passed on to future generations.

The Norwegian government wants the Norwegian World Heritage Sites to be a beacon for best practice within cultural and natural heritage management, both nationally and internationally. (*Report no. 16 to the Storting (2004-2005), Living with our Cultural Heritage; Verdifulle opplevelser. Nasjonal strategi for reiselivsnæringen (Valuable experiences – National strategy for the tourism industry), Ministry of Trade and Industry, 2007.*

1.2 Statement of Intent

In connection with the application for the extension of the world heritage area, the following bodies are in agreement on the key points given below: the municipalities of Røros, Holtålen, Engerdal, Os, and Tolga, the county authorities of Sør-Trøndelag and Hedmark, the Sámi Parliament, the County Governors of Sør-Trøndelag and Hedmark, the Directorate for Nature Management, the Directorate for Cultural Heritage and the Ministry of the Environment.

- *The objective of the nomination of Røros Mining Town and the Circumference as a World Heritage Site is to preserve the cultural heritage and cultural landscape in order to show why the mining town was established here and how the community functioned and developed.*

- *The historic characteristics, qualities and traditions shall be the foundation and driving force for the development of both business activities and the community as well as of cultural initiatives and good living conditions.*

- *The mining town shall be preserved as a living urban community without diminishing its special qualities.*

- *The cultural landscapes – industrial, agrarian and Sámi – shall be preserved and shall be the foundation of living communities.*

- *Røros and the Circumference shall be managed in accordance with national legislation. Norway»s goal for its World Heritage Sites are that they shall stand out as examples of «best practice» in the field of cultural heritage and nature management, and in the promotion of the World Heritage Convention.*

Cooperation
It is our common responsibility to ensure that cultural heritage sites, cultural landscapes and the natural environment are preserved and safeguarded. It is also our common responsibility to ensure that business activities can be carried out and developed without encroaching on the outstanding universal value of the World Heritage Site. The municipalities and the relevant authorities at county and state level will assume this responsibility as representatives of the Norwegian state.

A mutual understanding of the various parties' spheres of interest is of key importance for this cooperation.

A cooperation council shall be established in which all levels of management are represented. The council shall ensure uniform treatment of World Heritage in the area, and shall initiate the development and exploitation of world heritage status for the benefit of the entire Circumference.

If the extended world heritage area is inscribed on UNESCO's World Heritage List, Norway undertakes to ensure that the values in the area are preserved.

This statement has been discussed and approved at a political level and has been adopted by the relevant bodies. It will form the basis for all further management of the outstanding universal value of Røros Mining Town and the Circumference.

1.3 The World Heritage Convention

The Convention concerning the Protection of the World Cultural and Natural Heritage was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris on 16 November 1972. The Convention entered into force on 17 December 1975 and Norway ratified it on 12 May 1977. Articles 1 and 2 of the Convention define what is meant by cultural and natural heritage.

The purpose of the Convention is to secure and develop the most outstanding elements of mankind»s common cultural and natural heritage by ensuring that the international community as a whole participates in the protection of this heritage by granting collective assistance that serves as an important supplement to the protective measures that each nation implements.

185 State Parties have acceded to the Convention as of November 2008.

1.4 Extension of the world heritage area - history

1.4.1. ICOMOS Norway. Evaluation 1993

At the request of the Directorate for Cultural Heritage, ICOMOS Norway conducted an evaluation of the management of Røros Mining Town as World Heritage in 1993. In its summary of the evaluation, ICOMOS made several recommendations, including the following:

The possibility should be considered of defining a larger industrial landscape area (the Circumference) of which the «Bergstad» is an organic part as a World Heritage Site: Røros Bergstad and its Circumference.

1.4.2. Project: Delimitation, protection and management of Røros World Heritage Site

Based on ICOMOS Norway's 1993 evaluation, the project on the delimitation, protection and management of Røros World Heritage Site was started as a cooperation between the county authority of Sør-Trøndelag, the Directorate for Cultural Heritage and Røros municipality. The county authority of Hedmark, and the

municipalities of Tolga, Os, Engerdal, Tydal and Holtålen were also heavily involved in the project. The Directorate for Nature Management and the County Governors of Hedmark were represented on the Board of the project.

The final report on the project concluded that:
The World Heritage Site should be extended, and we also recommend the selection of cultural heritage sites and cultural landscapes which in our view form a natural part of such an extension. We would therefore recommend that efforts be made in the appropriate fora to promote this extension. We propose the Circumference as a buffer zone for the area.

1.4.3. ICOMOS Norway. Evaluation 2003

A different ICOMOS Norway group undertook a new evaluation of the World Heritage Site Røros Mining Town in 2003.

The group called for the follow-up of some of ICOMOS» recommendations from 1993, such as:
- the delimitation of absolute boundaries for the world heritage area
- a statement on the outstanding universal value of the Property

1.4.4. Work on the extension after 2003

After the evaluation of Røros Mining Town in 2003, the work on the extension of the world heritage area focused on the collection of further documentation and supporting material, the delimitation question and contact with the municipalities, the county authorities and other public administrative bodies and communication networks.

As part of the work on the extension of the world heritage area, the following reports on the cultural heritage values in the area have been compiled:

- *Prosjekt «Avgrensing, vern og forvalting av verdensarv Røros» – Sluttrapport (Anker 2001)* (Project on the delimitation, protection and management of the World Heritage Site Røros Mining Town).

- *Særtrekk ved kobberverksdrifta ca. 1630-1890 (Jordet 2003)* (Distinctive features of operations at the copper works, from approximately 1630 to 1890). The report deals with relations between the Røros Copper Works and the rural settlements in Nordøsterdal. This forms part of the project mentioned above.

- *Naturverdier i Circumferensen (Naturitas as 2007)* (Values in the natural environment in the Circumference). This deals with the natural environment and the work on protection inside the Circumference pursuant to the Nature Conservation Act. Protection of the watercourses also plays a central role in this report.

- *Det samiske perspektivet i verdensarven Røros (Fjellheim 2007)* (The Sámi perspective in the World Heritage Site Røros Mining Town). This deals with the importance of the Sámi and Sámi reindeer husbandry for the community at Røros throughout the period from the establishment of the copper works to the present time.

- *Vurdering av Rørosgruvene som kulturminner (Berg 2007)* (The evaluation of the mines at Røros as cultural heritage). This focuses on placing the mines in the cultural heritage complex formed by the historic mines as a whole, including the mining town of Røros.

- Arne Espelund: *Fra berggrunn og jordsmonn i Rørostraktom* (ISBN 82-996953-0-9) (From rock and earth in the Røros region). A general presentation of mining and metallurgy in the Røros

region. The book is based on a report compiled for the Directorate for Cultural Heritage that has been considerably expanded.

- *Bergstaden – en kulturhistorisk steds- og landskapsanalyse (Fjæran 2006)* (Røros – a cultural-historic analysis of town and landscape). This shows the gradual growth of the mining town and analyses the different values in the area as a basis for planning.

- *Utvidelse av verdensarvområdet på Røros – Arbeidsnotat fra «omegnsgruppa», (Anker og Andresen) juni-07* (Extension of the world heritage area at Røros – memorandum from the «extension group», (Anker and Andresen), June 2007).

- *Forurensningssituasjonen ved gruver og smeltehytter innenfor Circumferensen – Rørosfeltet* (Iversen 2008) (Pollution situation at mines and smelters inside the Circumference – the Røros field). Memorandum.

In autumn 2007, Dr Jukka Jokilehto visited Røros at the invitation of the Directorate for Cultural Heritage. The purpose of the visit was to advise the Directorate on the delimitation of the extension of the world heritage area.

In his report of 27 September 2007, Dr Jokilehto recommended the establishment of a world heritage area sufficiently large to include all the most important elements that show how Røros Mining Town functioned. The area ought to consist of the wooden town and the surroundings of the smelter in Røros, the grazing and agricultural landscapes round the town, parts of the transport routes and waterways, and the large mining areas around Storwartz and the Nord-gruvene mines.

The advice given by Dr Jokilehto has mainly been followed.

1.5 Outstanding Universal Value

The following proposed statement on the Outstanding Universal Value of the extension of the world heritage area is included in the nomination document:

> The World Heritage Site Røros Mining Town and the Circumference comprises a unique mining town, established in 1646, built entirely of wood, and surrounded by a cultural landscape that shows in an outstanding and almost complete manner how the mining operations, transport and way of life had to be adapted to the requirements of the natural environment – the mountain plains, the cold climate, the remote location without roads and with marginal growth conditions for forests and agriculture. On this basis a unique culture developed that has disappeared in part, but outstanding testimony of its existence has been preserved

The outstanding universal value is linked to:

- **Røros Mining Town, already inscribed on the World Heritage List**
- **the cultural landscape of the urban agriculture with the plots of land surrounding the town and the summer grazing farms and summer residences situated in uncultivated land close to the town**
- **the industrial cultural landscape with traces of all phases of mining operations**
- **the cultural landscape containing traces of transport systems such as old roads, transport routes, and cableways**
- **the first power station.**

The outstanding universal value is supported and supplemented by the cultural landscape in the buffer zone which illustrates the same elements and thereby explains the extent of mining operations and the significance of these for the entire Røros region.

Also included are:
- **hamlets and built-up areas that grew up in conjunction with the mines and smelters**
- **cultural landscapes marked by the production of charcoal**
- **transport systems with water slides for the floating of timber**
- **Sámi cultural landscapes.**

The totality of the preserved individual elements provides an almost complete picture of how the mining town functioned and will be safeguarded by the management of Røros Mining Town and the Circumference.

1.6 Geographical delimitation

The World Heritage Site Røros Mining Town and the Circumference consists of three areas that all lie within the Circumference: Røros Mining Town and its cultural landscapes, the Femundshytta smelter, and one of the winter transport routes. The remaining areas of the Circumference are proposed as a buffer zone. The Circumference is the area of privileges granted to Røros Copper Works by King Christian IV in 1646. The area is demarcated by a circle with a radius of 45.2 kilometres (approximately four «old Norwegian miles») from its centre at Old Storwartz mine.

Røros Mining Town and cultural landscapes include the previously inscribed Røros Mining Town and the whole sweep of landscape in which the town is located. Adjoining this we find: to the north an area up to the Storwartz and Olavsgruva mines; to the northwest a continuous area from Bergstaden to Sundet, the Orvos and the Nordgruvfeltet field with the King»s Mine, Christianus Sextus and Muggruva mines. To the southeast Hådalen is included in the area connected to the Winter Transport Route.

Within the area lies the old Mining Town with the smelter, and also the most important mines that were the basis for the founding of the town, the urban agriculture close to the town with plots of land and summer grazing farms as well as a few farms and the summer residences of the bourgeoisie. In addition the Kuråsfossen power station and the home of the writer Johan Falkberget at Ratvolden are located here.

Femundshytta
The area includes the industrial cultural landscape (relict cultural landscape) with the actual ruins of the smelting house, the foundations of houses, slagheaps, roasting places etc. together with the remains of dams along the Butjønnbekken stream. Femundshytta represents the remote smelters that were established over the course of time as the timber in the area close to the Røros smelter was exhausted. It has been chosen because it remains as a ruin in a landscape that possesses its own strong qualities and that bears little sign of recent encroachments.

The Winter Transport Route from Tufsingdal to Røros
The communities that grew up around the mining operations and the smelters were very dependent on transport. Ore, charcoal, firewood etc. had to be transported to the mines and smelters. The copper had to be transported to Trondheim and foodstuffs from both north and south to Røros and the other mining communities. Most of the transport took place in the wintertime, and on frozen rivers and lakes when this was possible. The winter transport route that is chosen exemplifies this traffic. The route crosses the Circumference at Tufsingdal and then continues over Holla and Lake Korsjøen to Røros. The

route traverses a beautiful and almost untouched natural and cultural landscape. It was used to transport charcoal and timber to Røros, and continued on to the small settlements on the Swedish side of the border, and to Falun. Naturally there are few indications of the route in the landscape, but it is marked by the presence of the large farms of Holla and Korsjø that provided stables and overnight accommodation for travellers.

The Buffer Zone

The Circumference represents a theoretical boundary of the area of privileges that has never been marked in the terrain. In the letter of privileges of 1646, Røros Copper Works was granted privileges inside a circumference of four «miles» from the Storwartz mines. However, at this time the length of a mile was somewhat uncertain, and this varied in Norway and Denmark. Towards the end of the 17th century, a Norwegian mile was set at 11.3 kilometres by today's standards. However, there was still uncertainty as to where the border was located due to the inadequacy of the map base at the time, and this led to continual discussions. The Circumference now delimited in the proposal for a buffer zone is calculated as having a radius of four «old Norwegian miles», i.e. 45.2 kilometres with the centre of the circle at the Old Storwartz mine.

The Circumference has high values in terms of the natural environment while at the same time there are traces of activities linked to Røros Copper Works in almost the entire area. The Circumference is a part of Røros' history, and the cultural heritage sites are physical reminders that amplify the history related by Røros and the other areas. Together they constitute a totality in which Røros Mining Town has been the driving force that has stamped its mark on the entire area while being completely dependent on the resources provided by the Circumference (and in areas far beyond).

The concept of the buffer zone is unfamiliar in Norwegian public administration but is part of the World Heritage system. UNESCO wishes World Heritage Sites to be surrounded by a buffer zone to secure the Outstanding Universal Value over and above what is possible in the World Heritage area itself. The buffer zone can also contain elements that are functionally important as support for the core area. (The buffer zone *«should include the immediate setting of the nominated property, important views and other areas or attributes that are functionally important as a support to the property and its protection».* Operational Guidelines for the Implementation of the World Heritage Convention, paragraph 104.) The functional attributes that link the Property and the Circumference are so strong that they have provided a basis for nominating the Circumference as a buffer zone.

Of particular interest in the buffer zone are:

- The transport systems along the Femund and Hådal watercourses, including the timber slides in the Langtjønna watercourse
- Feragsgrenda hamlet
- The Glomma river between the outlets of Aursunden and Orvos. The Glomma's passage through valleys from Sundet and south through Os and Tolga including Tolga centre
- Gammelalmannveien road on the west bank of the Glomma river
- The Gruvåsen area
- The passage of the Rugla and Gaula rivers through valleys, including the Killingdal plant and the Eidet smelter
- Raudhåmmårn ridge
- The Narjordet area

Large parts of the buffer zone have long been used for reindeer husbandry by the Sámi. Even today approximately 12,000 reindeer use the area as winter pastures. Historical traces of the activities of the Southern Sámi are found over most of the Circumference.

1.7 Land ownership

Røros Mining Town and the Circumference
Town and Cultural Landscape
Most of the area is privately owned. Some important sites are owned by the municipality. On the occasion of the bankruptcy of Røros Copper Works in 1977, the government purchased Malmplassen square with the smelting house, buildings and the slagheaps, as well as the Storwartz mining field. The purpose of the purchase was to safeguard the cultural heritage value of the properties and to support the establishment of a museum on the site (cf. section 2b History and Development). Today, Malmplassen square functions as a key venue for major events at Røros and is currently owned by the state, represented by the Ministry of the Environment.

Femundshytta smelter
The industrial cultural landscape is privately owned, and forms part of the only farm left on the site.

The Winter Transport Route
The winter transport route from Tufsingdal valley to the town of Røros passes mainly over lakes that are part of government land. The route also passes over some privately owned ground.

The Buffer Zone
The buffer zone comprises large mountain areas that are government-owned or locally-owned common land. The other areas are mostly privately owned.

1.8 Geology, watercourses and the wilderness

The northern and western parts of the Circumference belong to the Trondheim Cover, which mainly consists of calcite-rich phyllite, mica schist, slate and gneiss. The mining activities in the Circumference were mainly associated with this area.

Inside the Circumference we can find the sources of two of Scandinavia»s largest watercourses: the Glomma river and Lake Femunden with the Trysil/Klara and Göta rivers.

Several hydro-electric power stations have been built along the Glomma river from Lake Aursunden and southwards, but the Trysil-Femund watercourse is permanently protected against hydro-electric power development on the Norwegian side of the border.

A point worth mentioning is that the Glomma watercourse and the Femund-Trysil watercourse are physically and biologically linked through the canal and timber slides between Femunden and Feragen, built by Røros Copper Works in the period from 1715 to 1762. Both the Glomma and Gaula rivers are still strongly affected by the run-off of heavy metals from the mining operations of Røros Copper Works.

Approximately 600 km^2 of wilderness (more than five kilometres from a road or other major technical encroachment) are to be found inside the limits of the Circumference. If the neighbouring areas in Sweden are included (Rogen Nature Reserve), this area is doubled.

1.9 The municipalities

The World Heritage Site, Røros Mining Town and the Circumference, is situated in the municipalities of Røros, Os, Holtålen and Engerdal. Furthermore the buffer zone includes areas in Røros, Os, Tolga, Engerdal, Tynset and Midtre Gauldal. Five municipalities participate actively in the world heritage work and have signed the Statement of Intent. The municipalities of Tynset and Midtre Gauldal form part of the buffer

zone with the small mountain areas that are included in the Forollhogna National Park. In the northeastern part of the Circumference we find Tydal municipality. The municipal authorities have decided that they do not wish the relevant areas within the municipality to be given buffer zone status, and they therefore no longer participate in the world heritage work.

The table below provides data on the participating municipalities. Only parts of the municipalities are included in the world heritage area or the buffer zone.

Municipality	Area (km^2)	Inhabitants (2006)	Key business activities
Røros	1956	5670	Public sector administration, industry, trade and service industries, tourism
Holtålen	1209	2070	Public sector administration, agriculture, industry
Os	1040	2080	Public sector administration, agriculture, industry
Tolga	1122	1700	Public sector administration, agriculture, trade and service industries
Engerdal	2197	1455	Public sector administration, agriculture, trade and service industries, tourism

Røros has enjoyed a lengthy period with a stable population that has increased only slightly. In Os the population has remained stable while in the three other municipalities there has been a slight decline in population over a prolonged period of time.

2 Management framework

2.1 Purpose of the management plan

The management plan for the world heritage values is based on the view that the World Heritage Site Røros Mining Town and the Circumference is the joint responsibility of all parties involved, represented by five municipalities, two county authorities, the Sámi Parliament and the Norwegian Government.

The plan shall form the foundation of a unified and consistent management of the world heritage values found inside «Røros Mining Town and the Circumference», and serve to fulfil the Government's goal that the Norwegian World Heritage Sites shall appear as examples of best practice in the field of cultural heritage management.

For the *authorities responsible for management*, the plan shall lay down guidelines for planning, case processing and the use of financial, legal and educational measures enacted in the world heritage area, and for the dissemination of information about the site.

For *NGOs, educational institutions and the business sector,* the plan shall serve as a guide to methods for the safeguarding and strengthening of the outstanding universal value of the Property.

2.2 Charters/Conventions/Policies

Below is a list of international charters and conventions that are regarded as binding for the management of the World Heritage Site Røros Mining Town and the Circumference:

- The Convention concerning the Protection of the World Cultural and Natural Heritage (1972) UNESCO
- The Convention for the Safeguarding of the Intangible Cultural heritage (2003) UNESCO
- International charter for the conservation and restoration of monuments and sites (The Venice Charter-1964) ICOMOS
- The charter of Historic gardens (The Florence charter -1981) ICOMOS
- Charter for the conservation of historic towns and urban areas (The Washington Charter – 1987) ICOMOS
- Charter for the protection and Management of the Archaeological Heritage (1990) ICOMOS
- International cultural tourism charter (1999) ICOMOS
- Charter on the built vernacular heritage (1999) ICOMOS
- Principles for the preservation of historic timber structures (1999) ICOMOS
- Principles for the analyses, conservation and structural restoration of architectural heritage (2003) ICOMOS

2.3 Legislation

2.3.1. The Planning and Building Act

The Planning and Building Act is the key legislative act for the preservation of the unity as well as the details in the World Heritage Site Røros Mining Town and the Circumference.

In the context of world heritage, the Planning and Building Act is an instrument for:

- establishing long-term goals and strategies for the management of natural environments, cultural heritage sites, historic environments and landscapes.
- coordinating interests related to landscapes, the protection of the environment and of cultural heritage and other sectors in the context of regional and municipal planning.

- clarifying the long-term status of interests related to landscapes, protection of the environment and the preservation of cultural heritage comprised by regional and municipal land-use plans.
- investigating the consequences for landscapes and interests related to the protection of the environment and of cultural heritage associated with the municipal land-use plans, local zoning plans and major development projects.
- regulating the manner in which specific natural environment and cultural heritage sites and the landscape are being used and maintained through municipal development and land-use plans, local zoning plans and building plans, with appurtenant provisions for preservation, alterations, new construction and use.
- regulating casework practices in municipal and county authorities.

The most prominent sections for management of the World Heritage Sites are:

Section	19	County-level planning
Section	20	Municipal-level planning
Section	25-6	Zoning provisions for special areas
Section	74-2	Planning solutions and appearance (the «aesthetic requirements» section)
Section	93	Projects requiring application or permission

The Act strongly emphasizes early involvement in order to safeguard natural and cultural values in an appropriate manner. If a superior level of authority decides that the municipality has failed to address national cultural heritage interests in its planning process, it can raise objections to the plan. In this situation, the matter must be finally settled by the Ministry of the Environment. This provision acts as a safeguard to ensure appropriate consideration of world heritage values.

2.3.2. The Cultural Heritage Act

The purpose of the Act is to protect ancient monuments and historic environments with their characteristics and variations as part of Norwegian cultural heritage and identity, and as components of a unified management of the environment. When decisions are made pursuant to other legislative acts, but with an impact on interests related to resources represented by cultural heritage, emphasis should be put on the purposes of the Cultural Heritage Act.

Cultural heritage sites pre-dating 1537 are automatically protected, irrespective of whether they are archaeological sites, ruins or intact buildings. The same applies to Sámi cultural sites older than 100 years. An automatically protected security zone of five metres is in effect around an automatically protected cultural heritage site. Before starting any kind of project, the initiating party is obligated to clarify whether the project will impinge on automatically protected cultural heritage sites. Intact buildings dating from the period 1537-1649 are likewise automatically protected.

Following a comprehensive consultation procedure among relevant private bodies and public authorities, the Directorate for Cultural Heritage may issue protection orders for cultural heritage sites regardless of their age and including the surrounding area. The protection of the surrounding area should serve to safeguard the effect of the protected site in the landscape and to protect any associated scientific interest. Specific provisions are established for each separate protection order.

The Directorate for Cultural Heritage and the county authorities can issue temporary protection orders with immediate effect if cultural heritage sites of national importance face risk of damage or obliteration. The initiation of proceedings for permanent protection is subsequently considered. A small number of municipalities have also been granted this authority, and Røros municipality is one of them.

Entire historic environments are protected according to a decision by the King in Council.

The Act safeguards cultural monuments and sites from the earliest times with no limit in time up to the present. Application for permission is required for all kinds of projects that impinge on protected sites. The authority to grant exemption from the protection order is divided between the county authorities and the Directorate for Cultural Heritage. All decisions may be appealed to a superior authority.

2.3.3. The Nature Conservation Act

Large tracts of the area inside the Circumference are protected pursuant to the Nature Conservation Act as national parks (Sections 3 and 4), protected landscapes (Sections 5 and 6) or nature reserves (Sections 8 and 9).

As of 2008, a total of 35 areas inside the Circumference are protected pursuant to the Nature Conservation Act.

The Nature Conservation Act and its appurtenant regulations are mainly enforced by the Directorate for Nature Management and the County Governors.

2.3.4. Other relevant acts

A number of other legislative acts contain provisions that can serve to protect and develop the world heritage values. These include:

- The Land Act
- The Forestry Act
- The Water Resources Act
- Act relating to regulations of watercourses
- Act relating to the prevention of fire etc.
- The Pollution Control Act
- Act relating to mountain areas etc.
- The Nature Inspectorate Act

2.4 Planning status

2.4.1. Røros Mining Town with cultural landscapes

Land-use plan for Røros town centre (1994)

The fringe areas of the town are covered by the «Land-Use Plan for Røros Town Centre» of 1994. The plan sets stringent limitations on activities, and has constituted a key instrument for the preservation of the cultural landscape surrounding the present world heritage site.

The conservation area plan for Røros town centre (1980)

The centre of Røros with its wooden houses is currently managed in accordance with the zoning plan from 1980. The plan is based on section 25-6 of the Planning and Building Act, Special areas, and its main purpose is to preserve the area as cultural heritage. The plan comprises strict regulations pertaining to the preservation of buildings and street patterns. The plan has proven to be an appropriate instrument for the conservation of world heritage values since the nomination in 1980.

The conservation area plan for the Småsetran area, with maintenance plan (1989)

Inside the Property, the conservation area plan for the Småsetran area from 1989 is in effect, with an appurtenant maintenance plan. The plan is a governmental zoning plan adopted in accordance with section 25-6 of the Planning and Building Act for purposes of protecting cultural and natural heritage. The plan is an appropriate management document for the preservation of the world heritage values in the Småsetran area.

Kvitsanden protected landscape (2004)
The Kvitsanden protected landscape is located inside the Property, and was protected pursuant to the Nature Conservation Act in 2004. The purpose of the protection is to preserve the traces from the ice age and the landscape formations in the area.

Governmentally protected recreational area at Lake Doktortjønna
The area around Lake Doktortjønna has been purchased by the Ministry of the Environment to be used for recreational purposes. The area forms a *valuable part of the fringe zone around the mining town*.

Regulated recreational area along the Hitterelva river from Malmplassen square to Sjøbakken
The area on both sides of the Hitterelva river between Malmplassen square and Sjøbakken is regulated as a recreational area.

Within the Town and Cultural Landscapes, a total of 42 properties including 102 buildings and installations have been protected pursuant to Section 15 of the Cultural Heritage Act.

New land-use plan for Røros town centre
A new municipal land-use plan for Røros town centre is currently being formulated, and was sent on a final hearing round in the autumn of 2008. The purpose of the plan is to strengthen the position of the cultural and natural heritage values as resources for practical use and to facilitate development of areas for new construction, while safeguarding the preservation values. In the section «Key principles for Røros», the relationship between the plan and World Heritage is described in the following manner:

- The municipal land-use plan shall safeguard long-term management and use of the areas and the natural environment and cultural heritage sites.
- Common industrial, cultural heritage and natural environment sites shall be preserved as a resource for daily use, and as a basis for knowledge, experience and sustainable cultural, social and economic growth.
- Røros shall to the greatest possible extent be protected through use, with opportunities for development and innovation based on values from its cultural history.
- As a World Heritage Site, Røros has a particular responsibility towards the international community.
- As a World Heritage Site, Røros shall follow best practices with regard to the management of the cultural and natural heritage.
- The municipal land-use plan comprises analyses of locations and landscapes in light of their cultural history as well as management plans, key principles and topical analyses.
- The municipal management plan shall be continued and elaborated in detail with regard to the town centre.
- The municipal land-use plan is part of the municipal planning framework, and takes precedence over previous zoning plans and building plans to the extent that these are in conflict with the content of the municipal land-use plan.

The Storwartz field and the Nordgruvefeltet field are located inside ANR areas with a ban on construction imposed by the land-use plan for Røros municipality. The same applies to Mølmannsdalen valley, the areas

on the north side of Hitterdalen valley, the Vola area and the areas west of the Glomma river between Skårhammardalen valley/Sundbakken and Orvos, as well as the areas along the Orva river up to the Nordgruvefeltet mining field and the Muggruva mine.

These areas are attractive for the construction of holiday homes. The ANR status provides sufficient authority to the municipality with regard to the management of the world heritage values in the area.

An area around and between Upper and Lower Storwartz is regulated as a recreational area and is owned by the Ministry of the Environment.

2.4.2. The Femundshytta smelter

The Femundshytta smelter is located within an area currently designated as an ANR area (area for agriculture, nature and recreation), with a general ban on new construction. There are major world heritage values to be found in this area, but they are not exposed to development pressure.

2.4.3. The Winter Transport Route

This proposed extension to the Property is located within areas currently designated as ANR areas, with a general ban on new construction imposed by the municipal land-use plans for Røros and Os municipalities. The world heritage values in these areas are currently not subject to pressure for further development.

2.4.4. The Buffer Zone

In the context of planning, most of the areas inside the Circumference are categorized as ANR areas, with a general ban on new construction. This categorization provides an opportunity to municipal and regional authorities to protect the world heritage values in the event of pressure for development from parties who wish to undertake construction.

Important segments of the areas are protected pursuant to the Nature Conservation Act, including two national parks, 23 nature reserves and ten protected landscapes that all are completely or partly located inside the Circumference. (See Annex 1: Maps)

With the exception of the main watercourse of the Glomma river, the watercourses inside the Circumference are permanently protected against development of hydroelectric power. These watercourses are comprised by the National Guidelines for Protected Watercourses, which provides special protection for cultural and natural heritage values, beyond the provisions associated with the ANR areas as defined by the Planning and Building Act.

The historical part of Tolga town centre is designated a conservation area pursuant to Section 25-6 of the Planning and Building Act.

A joint county-level land-use plan for Hedmark and Sør-Trøndelag counties will be formulated, comprising the Circumference as well as the mining activities outside its boundaries. Planning work was initiated in October 2008.

2.5 Authorities responsible for management

The Planning and Building Act serves mostly as an instrument for the municipalities. As advisory authorities and bodies of appeal, the county authorities, the County Governors, the reindeer husbandry authorities, the Sámi Parliament and the Directorate of Mining also have key roles in the management of the area.

The municipalities
The municipalities inside the area of the Circumference cooperate on a number of issues.

In terms of management of the world heritage values, their most prominent tasks are associated with planning pursuant to the Planning and Building Act, protection and administration of cultural heritage, management and protection of the natural environment, management of agriculture and education and training.

Røros municipality employs a cultural heritage manager.

All five municipalities employ specialized municipal planners (Tolga and Os municipalities share one position).

Røros, Tolga, Holtålen and Engerdal municipalities employ specialized managers/consultants for cultural affairs.

Os and Holtålen municipalities employ specialized managers for protection of the environment.

Røros municipality employes a specialized manager for natural resources, who also acts on behalf of the Nature Inspectorate in the Femundsmarka National Park, in the Sølendet Nature Reserve and the other nature reserves and protected landscapes inside the municipality.

All municipalities have separate offices for management of land and forestry.

The county authorities
Both Sør-Trøndelag and Hedmark county authorities have separate departments employing skilled personnel for protection of cultural heritage, nature management and planning. Both county authorities devote close follow-up to the world heritage area in their planning and casework.

Directorate for Cultural Heritage
The Directorate for Cultural Heritage employs a number of specialists in the fields of protection of cultural heritage sites and planning, who have intimate familiarity with the world heritage area. The Directorate for Cultural Heritage has at its disposal a separate item in the state budget for purposes of protection of the world heritage areas.

In terms of public administration, the provisions of the Cultural Heritage Act are enforced by the Directorate for Cultural Heritage and the county authorities. Røros municipality has been empowered to enact temporary protection if cultural heritage values are threatened (Section 22 no. 4).

In accordance with the Cultural Heritage Act, authority pertaining to the Sámi cultural heritage sites has been delegated to the Sámi Parliament, represented by its regional department at Snåsa.

The Nature Conservation Act is mainly enforced by the County Governors. At Forollhogna National Park enforcement authority has been delegated to the municipalities.

3 Research and documentation

3.1 Research

The needs and opportunities for research within World Heritage Røros Mining Town and the Circumference are considerable. The extensive archive material from the Røros Copper Works that has been preserved, the economic significance of the cultural heritage sites, the change in the authenticity of the buildings over time, the knowledge and attitudes of the inhabitants in respect of World Heritage etc., are some of the key topics that have been the subject of research.

A great deal of research has been conducted into the World Heritage Site, and overviews can be found at the Norwegian Institute for Cultural Heritage Research (NIKU), at the Røros Museum and at the Norwegian University of Science and Technology (NTNU).

The Norwegian Institute for Water Research (NIVA) has carried out research and development projects on the run-off of metals at most of the important mining areas in the region and in particular at the Nordgruve and Storwartz fields with the Hitterelva river.

The nomination of World Heritage Røros Mining Town and the Circumference provides the opportunity to establish a research programme to monitor the development of World Heritage over a long period of time, and to find answers to factors other than those examined through the monitoring schemes of public administration

3.2 Documentation

Archive database

UNESCO sets requirements as to documentation of World Heritage in respect of management and scientific work as well as research and communication activities. Today documentation on World Heritage is spread over many different areas, in both the private and public sectors. The main documentation is found in the archive of the Røros Copper Works, preserved in the regional state archives in Trondheim and at Røros Museum. In addition a number of public archives are kept by the municipalities and county authorities as well as by the Directorate for Cultural Heritage and the National Archives.

Buildings and plants

Both the ICOMOS evaluations and the project on delimitation, protection and management point out the need for a more detailed description than that currently available of buildings and plants within the world heritage area.

Prior to the Outbuildings Project over 400 outbuildings were registered and their condition evaluated. Through this project, craftsmen document the condition of the buildings before and after restoration.

At Småsetran all the properties with their buildings and cultural landscape have been documented and a ten-year monitoring cycle has been established to register change.

The Røros and Nordøsterdal Museums possess documentation on parts of the buildings and plants in the area they are responsible for.

4 Information and skills

4.1 Dissemination of information

Report no. 16 to the Storting (2004-2005), *Living with our cultural heritage*, states the following about the dissemination of information on cultural heritage:

«The Government wishes to increase the role of our cultural heritage as a social and financial resource. This goal implies new demands on the dissemination of information and bringing the cultural heritage sites to life. Emphasis should be placed on showing good examples of how cultural heritage sites and historic environments can be put to use in new contexts. This dissemination of information should address all groups of the population.»

Inside the World Heritage Site Røros Mining Town and the Circumference we find many institutions and organizations that impart information on the world heritage. Municipalities, county authorities and the Directorate for Cultural Heritage also have similar responsibilities that are exercised in various manners.

4.1.1. The museums

The museums in the world heritage area have long traditions of disseminating information about the history of Røros Copper Works and the cultural history associated with the emergence of the mining town, the mines, social development in the region in general and its cultural characteristics in particular.

Røros museum

The fields of responsibility for Røros Museum are mining history, building conservation, the cultural history of the Southern Sámi and the World Heritage. The museum is also responsible for providing expert advice and guidance to local museums at the county level.

Røros Museum manages cultural heritage sites on behalf of the Ministry of the Environment and the Directorate for Cultural Heritage, as well as the properties of Røros Historical Society and the Friends of the Olavsgruva Mine, together with its own properties.

Røros Museum maintains a comprehensive permanent exhibition illustrating the mining activities of Røros Copper Works, and the net-based display «World Heritage Røros – an introduction» presents the mining town and the activities within the Circumference. (www.worldheritageroros.no)

Røros Museum is currently examining the possibility of establishing a world heritage centre in association with the museum.

Røros Museum has approximately 50 000 visitors annually to its sites at the Smelting House, the Olavsgruva mine and Sleggveien road.

Nordøsterdal Museum foundation

Nordøsterdal Museum foundation is the regional museum with responsibility for the operation and management of nine local departments in addition to the Museum Centre at Ramsmoen.

In the context of the World Heritage Site Røros Mining Town and the Circumference, the foundation is responsible for the Dølmotunet/Sætersgård site at Tolga, Os Museum with the Oddentunet site at Narjordet and Vingelen Church and School Museum.

The Nordøsterdal Museum foundation possesses outstanding competence in the field of curatorship and dissemination of information, and will act as an important provider of information on the world heritage values in Hedmark county.

The Nordøsterdal Museum foundation cooperates with Røros Museum on a number of issues. An intensification of this cooperation will be natural in the context of the world heritage.

Falkberget/Ratvolden
The former home of the writer Johan Falkberget at Ratvolden currently functions as an independent museum unit, which is owned and operated by Røros municipality. Johan Falkberget's novels constitute one of the main channels for illustration of the human and social conditions associated with Røros Copper Works. The inclusion of Ratvolden in Røros Museum is currently being drafted.

The «Fjell-Ljom» Press Museum
The «Fjell-Ljom» Press Museum was opened in 1986 following widespread efforts on the part of enthusiasts, and contains a unique item of cultural history in the form of the only remaining complete, old-fashioned newspaper printing press in the Nordic countries. The museum is now part of the Røros Museum.

The Museum Centre in Trysil-Engerdal covers the geographical areas that are included in the World Heritage Site, Femundshytta and the surrounding buffer zone.

Ålen Rural Museum and Petran Museum at Holtålen
Holtålen municipality possesses buildings and collections that illustrate activities related to social development inside the Circumference through the centuries.

Femundsmarka National Park Centre with departments at Røros and Elgå arranges exhibitions on the nature and culture in the Femundsmarka National Park, as well as evening lectures and guided tours on the national park and other areas of the natural environment and cultural landscapes inside the Circumference.

4.1.2. Private associations and voluntary organizations
A number of private associations undertake dissemination of knowledge about the world heritage.

Røros Historical Society has a large membership and publishes books/leaflets on buildings, cultural landscapes and people in the world heritage area.

Friends of the Olavsgruva mine is a support group for the Olavsgruva mine and arranges activities related to the mine.

«The Old Mining Town» Association is a local division of the Society for the Preservation of Norwegian Ancient Monuments and manages the Per Åsmundsagården and the Rasmusgården houses at Røros. The association arranges evening lectures and is active vis-à-vis public authorities.

The Falkberget Ring acts to promote interest in the work of the writer Johan Falkberget. The Ring arranges courses, seminars etc.

Friends of the Røros Cow work to promote knowledge of the Røros cattle breed, which for centuries served as the main source of food for people in the Circumference.

The local historical societies in Os, Holtålen, Tolga and Engerdal all undertake activities that to some extent are related to issues pertaining to the historic development in the world heritage areas and the buffer zone.

4.1.3. The municipalities

The municipalities hold an independent responsibility for disseminating information on World Heritage. Røros municipality has undertaken extensive information efforts in the municipality as well as internationally on World Heritage and Røros Mining Town.

Websites

The municipal websites constitute important media for the dissemination of information to the local population and to visitors.

Schools

The dissemination of information on world heritage values to the younger generation is given priority by the schools. World heritage values are brought to the pupils by way of separate projects and through the regular teaching of social sciences. At Røros, several cooperative projects involving the schools and Røros Museum have been implemented – for example the project on the adoption of houses.

Through the programme «World Heritage in young hands», the decision-makers of the future receive knowledge and practical training that encourage the protection and preservation of the cultural and natural heritage. The programme is a cooperation between the UNESCO World Heritage Centre, with support from the World Heritage Committee, and the UNESCO school network, ASPnet. Its main purpose is to develop new forms of teaching through activities in schools and international meetings for pupils and teachers. The development of the project has taken place through training courses for teachers and workshops for pupils. The teacher training courses provide an introduction to the educational material developed by UNESCO on world heritage.

Røros Upper Secondary School has been an active partner in these efforts from their inception at the international level in 1994. Four international workshops have been arranged on the World Heritage Site Røros Mining Town under the auspices of Røros Upper Secondary School, in close cooperation with the municipality and the authorities responsible for conservation. Teaching at the school includes subjects related to World Heritage, and a separate course for tour guides has been developed with an emphasis on this field.

In the workshops for youth the students receive knowledge, practical training and skills in various types of conservation and maintenance. Here they undertake independent assignments under the supervision of a competent master craftsman. Representatives of Røros Museum, Røros municipality, the «The Old Mining Town» Association and other partners have supervised such restoration groups for young people.

The schools at Os, Tolga, Holtålen and Engerdal also provide information to their pupils on the history of Røros Copper Works, Røros Mining Town and the mining communities and smelters inside the Circumference.

Following the establishment of Røros Mining Town and the Circumference as World Heritage, there are ample opportunities for expanding the cooperation between different schools on training programmes related to World Heritage.

4.1.4. Press/media

Røros Mining Town and the Circumference is covered by the newspapers «Adresseavisen», «Østlendingen», «Arbeidets Rett», «Fjell-Ljom», «Breidablikk» and «Gränsposten». All newspapers display a great interest in World Heritage issues and bring widespread coverage of this directly and indirectly. The newspapers are the main opinion-forming media in the region and a future information strategy for World Heritage will focus on contact with the newspapers.

Local radio, both the Norwegian Broadcasting Corporation and the local Nea Radio cover matters related to World Heritage.

The national media also show great interest, and often provide coverage in news bulletins as well as in news reports and feature stories.

4.1.5. Major cultural events

Røros is the venue for several major cultural events of national interest. The Røros Fair, the outdoor theatre performance «Elden» («The Fire»), the Winter Chamber Music Festival and the Femundløpet sled-dog race all attract widespread national media coverage on TV and radio and in newspapers. These arrangements are important for acquainting Norwegians with the world heritage area and its history.

4.1.6. World Heritage Centre

Both the evaluations carried out by ICOMOS Norway and the project on the delimitation, protection and management of the World Heritage Site Røros included recommendations to strengthen activities related to documentation, information and the dissemination of information. In December 2005 a report was submitted, containing a draft outline of content, requirements for space and costs involved in the establishment of a world heritage centre. The report states that the world heritage centre «should aim to become a discovery centre and an attraction in itself, and make use of a wide range of both old and new information methods and technologies». Further work is in progress to make a final decision on the location, content and funding of such a centre.

4.2 Competence and skills

Safeguarding and developing World Heritage wholly depend on the availability of high competence and skills, and on an understanding of the importance of the World Heritage in terms of history, identity and economic potential.

4.2.1. Property owners

Most world heritage buildings and land are privately owned. Since Røros Mining Town was inscribed on the World Heritage List in 1980, knowledge of historic value of the buildings has increased among the owners. Strengthening the competence and knowledge of the property owners is a key task. The Outbuildings Project, the fire-prevention project and the process surrounding the extension of the world heritage area have also contributed to this end over recent years.

The need for a continuous dissemination of knowledge to the property owners will increase even further following the establishment of the World Heritage Site Røros Mining Town and the Circumference.

4.2.2. Craftspeople

For the conservation of the large number of buildings found inside the world heritage area it is essential to have craftspeople with a high level of skills.

Since the initiation of the Outbuildings Project, a continuous training effort has been undertaken among the community of craftspeople in the Røros region. This development has been facilitated by way of training courses, study trips, seminars etc. under the auspices of the Directorate for Cultural Heritage, Røros municipality, the Centre for the conservation of historic buildings at Røros Museum, Sør-Trøndelag University College, Røros Ressurs, Røros Craftsmen's Guild, the Labour Market Authority and others.

New knowledge, new requirements to preservation work and documentation etc. generate a continuous need for enhancing practical and theoretical skills among the craftspeople involved. The establishment of the Centre for the conservation of historic buildings, the ongoing efforts of the Outbuildings Project

and a generally increasing interest in the preservation of historic sites make the world heritage area well prepared to meet the demands of the future.

4.2.3. Politicians

Most decisions pertaining to the physical condition of the world heritage values are made by local politicians.The municipal planning commissions are important bodies in this context. Here, a number of separate decisions are made, that over time will combine to alter the condition of the buildings, locations and landscapes.

The local councils constitute the second major level of political decision-making that impinge on the World Heritage by way of the municipal planning process.

The establishment of the World Heritage Site Røros Mining Town and the Circumference will provide an opportunity for the politicians in the five municipalities to acquire a deeper knowledge of their responsibilities according to the World Heritage Convention and of the opportunities such status offers for local development.

4.2.4. Municipal administrations

In general, the municipal administrations inside the Property possess skills in the field of cultural heritage management. Cooperation between the municipal administrations in the Property and the Buffer Zone is also well-developed.The administrations prepare the ground for decisions made by local politicians, and undertake quality assurance of all underlying documentation.The establishment of the World Heritage Site Røros Mining Town and the Circumference will provide opportunities for further enhancement of skills and intensified cooperation between the municipalities involved.

4.2.5. Tourism enterprises

The tourism enterprises in the world heritage area play a key role as hosts for visitors to the region.They also represent a prominent part of cultural, social and economic growth based on world heritage values. The employees of the tourism enterprises act as important disseminators of knowledge about World Heritage.

4.2.6. Røros Reiseliv

The enterprise Røros Reiseliv (Røros Travel Cooperative) fulfils an important role in welcoming visitors to the region.They represent the immediate contact with the visitors, and through their website, visitor management, the Røros Fair and their specialized guided tours they have a key position as disseminators of knowledge about the world heritage values to visitors.

Employees of Røros Reiseliv receive training through courses and visits to prominent World Heritage Sites etc.

4.2.7. Industry

The world heritage area is home to a varied industrial community, with a large number of enterprises producing both for the domestic market and for export. Many of the enterprises use the Røros name deliberately in their marketing. In line with the international development of World Heritage, this status is likely to become even more important in terms of marketing. Knowledge about the World Heritage Site, its history and the stories related by the employees and those involved in marketing and sales contribute to a better understanding of world heritage values among customers, while at the same time strengthening their marketing effect.

A particularly promising development over the last ten years is found in the development of enterprises that supply locally produced food, buttermilk, Røros butter, Røros sausage and Røros cheese.

5 Funding schemes and cultural, social and economic growth

In the context of the establishment of the world heritage areas West Norwegian Fjords and the Vega Archipelago, the Ministry of the Environment took the initiative to establish an inter-ministerial group that will cooperate in facilitating the use of governmental funding for purposes of business development in these two world heritage areas. The group comprises officials from the Ministry of the Environment, the Ministry of Local Government and Regional Development, the Ministry of Culture and Church Affairs, the Ministry of Agriculture, the Ministry of Industry and Trade and the Ministry of Fisheries and Coastal Affairs. The group's mandate could be expanded to comprise also Røros Mining Town and the Circumference.

5.1 Ministry of the Environment

The funding schemes administered by the Ministry of the Environment for purposes of management and facilitation in protected areas are well-established. All municipalities have access to and are familiar with these schemes.

For the World Heritage Site Røros Mining Town and the Circumference, the funds earmarked for purposes of preservation of World Heritage on the budget of the Directorate for Cultural Heritage will be a source of funding for the maintenance of buildings and cultural landscapes, as well as for various efforts to enhance competence and knowledge. The Directorate of Nature Management also provides funding for the management of the world heritage areas.

For 2008, a total of NOK 11 million has been devoted to various measures for safeguarding and developing World Heritage at Røros Mining Town.

The funding schemes for maintenance, facilitation and monitoring of natural environments and recreational areas are administered partly by the County Governors and partly by the municipalities, on the basis of applications.

In addition, the State Nature Inspectorate administers funds that can be used for purposes of maintenance, and the provision of facilities and information in protected areas.

Norwegian Cultural Heritage Fund
The goal of the Norwegian Cultural Heritage Fund is to help to coordinate public and private sources of financing to ensure that a variety of Norwegian monuments and sites are preserved and made available for the general enjoyment and enlightenment of the public, and to promote development and general growth. It is intended to encourage cooperation between site owners and the business community, promote the availability of private capital and support local and regional partnerships and expense sharing. The Fund's secretariat is located at Røros.

5.2 Ministry of Agriculture and Food

Special environmental initiatives in agriculture
This scheme has a two-fold purpose: to preserve the cultural and natural heritage values in the cultural landscape of agriculture, and to reduce pollution from agricultural activities. The scheme is operated by the municipalities.

National grant scheme for grazing land
The purpose of the scheme is to encourage increased grazing by domestic animals in areas that are currently not used as pasture, as well as to reward farmers who let their animals graze freely.

Regional environmental programmes
The regional environmental programmes are compiled by the County Governors in consultation with the regional business organizations. The environmental programmes set forth guidelines for the use of special funding for environmental protection in the agricultural sector. Separate funding schemes are established for use in particular geographic locations, or for addressing particular challenges at the county level. Funding under these programmes is only granted to farms that receive production subsidies.

World heritage programmes under the annual agricultural marketing agreement
In order to safeguard the cultural landscape in the world heritage areas Vega Archipelago and the West Norwegian Fjords, the Ministry of Agriculture has launched a separate world heritage programme under the annual agreement on marketing and funding with the organizations in the agricultural sector. These funds should be seen in conjunction with funding granted by other sectors of public administration. An assessment should be made of whether this scheme should be expanded to include the extended World Heritage Site Røros Mining Town and the Circumference.

Other funding schemes for agricultural development
In the context of the annual agricultural marketing agreement, funds are devoted to the development of the farming industry and the stimulation of general growth. A national strategy has been formulated for the use of these funds, which comprise rural development programmes at the central and regional level, development programmes to stimulate growth in food production (Agriculture Plus), development programmes for forestry and programmes for bioenergy. The county authorities formulate regional strategies within the framework defined by national policies. These strategies are elaborated on the basis of local challenges in a dialogue with the agricultural industry and the municipalities.

5.3 Ministry of Local Government and Regional Development

Discretionary funding
Since 2004, the criteria for the allocation of discretionary funding emphasize that municipalities that face special challenges in terms of environmental policy associated with the management of common social resources should be granted extraordinary funding if these challenges are not addressed through the ordinary system for distributing income between municipalities. This applies, for example, to municipalities that possess national cultural heritage sites/historic environments and large areas that are protected pursuant to the Nature Conservation Act. This discretionary funding is allocated by the County Governors on the basis of applications.

The county authorities' regional development funds
The county authorities are responsible for the management of funds granted by the Ministry of Local Government and Regional Development for regional development purposes. The funds granted as direct support to enterprises are allocated through Innovation Norway. In Sør-Trøndelag county a separate programme has been established to support efforts to promote positive development and settlement in the inland municipalities in the County of Sør-Trøndelag. Os municipality is also covered by the programme.

The development of industries and activities based on cultural and natural heritage, culinary culture and performing arts are all eligible for this scheme.

EU Interreg funding
Interreg is one of several EU development programmes for regions that border on non-EU countries, including Norway. With regard to World Heritage Røros Mining Town and the Circumference, the programmes *Nordic Green Belt* (comprises the two Trøndelag counties in Norway and Jämtland and Västernorrland counties in Sweden) and *Scandinavian Heartland* (comprises Hedmark county and Røros in Norway and Dalarna county in Sweden) may be of relevance.

From the Norwegian side, funding is allocated by the Ministry of Local Government and Regional Development and the participating public authorities. Development projects for competence building in the fields of the natural environment, culture and tourism, training and competence development and ICT are relevant for several aspects of the management of world heritage.

Cooperation with the World Heritage Site Falun in Sweden is of particular interest, since this is Røros» Nordic twin town.

5.4 Ministry of Trade and Industry

Innovation Norway's funding schemes for tourism
Nature and culture constitute the most prominent elements of Norway's profile as a tourist destination. The Government wishes to develop and promote Norway as a sustainable destination in a manner that strengthens nature, culture and the environment, social values and financial viability in a long-term perspective. The national strategy for the tourist industry (*Valuable Experiences – National Strategy for the Tourism Industry*, Ministry of Trade and Industry 2007) points to the world heritage areas in particular as areas that have a clear potential for development of tourism in a sustainable manner.

Through Innovation Norway, a government-owned enterprise under the auspices of the Ministry of Trade and Industry, Norway has signed National Geographic's charter for *geotourism* and has committed itself to following and implementing the principles of geotourism in its promotion of the tourist industry. Geotourism is a type of tourism that maintains, strengthens and emphasizes the local characteristics, environment, culture, aesthetics and cultural heritage of a destination, and that benefits the local community.

The project «Sustainable Tourism 2015», implemented by Innovation Norway, has appointed Røros Reiseliv to prepare a pilot project for environmental certification of tourism enterprises in Holtålen, Tolga, Os and Røros municipalities.

5.5 Ministry of Culture and Church Affairs
The Ministry of Culture and Church Affairs allocates funds to the museums and national cultural institutions, among other establishments. The ministry may also allocate funding directly to specific initiatives or projects.

The *Arts Council Norway* is subordinate to the Ministry of Culture and allocates funding to projects that aim to preserve intangible cultural heritage.

5.6 Ministry of Education and Research
The Ministry of Education and Research is an important partner in the context of the dissemination of information, and it also administers several grant schemes that receive applications for funding of projects in the municipal schools.

5.7 Municipal industrial development funds

All the municipalities involved have municipal development funds for industry, managed by a separate board (the executive committees of local councils).The funds grant support to the establishment of enterprises and for the development of enterprises and institutions. Every year, the funds receive a high number of applications and allocate support to a number of projects in the field of «sustainable industrial development based on natural and cultural values».

5.8 Natural and cultural parks – Sustainable tourism

In recent years, several projects have been launched in Norway with a basis in natural and cultural parks as a concept for development of local communities.The model «natural and cultural park» implies using local advantages and characteristics associated with the cultural landscape and cultural and natural heritage sites to promote local development in a sustainable manner.

The Government has initiated efforts to establish a network for the exchange of experience and skills among local and regional authorities that wish to try out such projects associated with natural and cultural landscapes.

In the context of this concept of natural and cultural parks, the region may have an excellent potential for developing as an ecologically, financially and socially sustainable tourist destination that could serve as an example for destinations in Norway and the other Nordic countries.

6 International cooperation

World heritage status does not merely entail a responsibility for the management of irreplaceable values for mankind. It also contains a dimension of working for peace and international understanding. Both these factors make it important and appropriate for there to be an international involvement surrounding World Heritage.

The Røros municipality has gradually established international contacts linked to World Heritage. It is desirable to build on and extend this platform also within Røros Mining Town and the Circumference.

An informal Nordic network incorporating the World Heritage Sites was started in 1994. Every year a meeting attended by representatives of the Nordic sites is held at which experiences and ideas are exchanged. Røros is represented by politicians, managers and representatives from Røros Museum.

Falun, which is Røros' Nordic friendship town, is also a World Heritage Site (inscribed in 2001). Good contact at a political as well as an administrative level has been established between the two World Heritage Sites.

Røros is a member of the organization World Heritage Cities, which holds conferences annually. The organization has a number of development projects currently in progress that are relevant for World Heritage Røros Mining Town and the Circumference.

Moreover, Røros Upper Secondary School has had an international involvement in World Heritage since the early 1990s. One result is that a gathering of young people from the whole of Europe is held at Røros every second year.

Over the years Røros has participated in the EU's Leonardo programmes that have been particularly targeted at craftsmen. Courses have been arranged at Røros and craftsmen from Røros have also attended courses at several venues in Europe.

7 Cooperation council for World Heritage

Based on good experience with the work of the cooperation committee for World Heritage Røros Mining Town, the municipalities in the Property and the buffer zone have expressed the wish that a cooperation council for World Heritage Røros Mining Town and the Circumference be established.

8 Monitoring and Reporting

UNESCO sets requirements for reporting on the status and development of the Outstanding Universal Value of the property. Therefore it is important to find good operational indicators to measure the state of conservation.

The State Party and the municipalities also want regular reporting in order to monitor the development of the physical and land-use conditions, the economic impact and the development in expertise and knowledge.

The following indicators will be used:

Indicators measuring state of conservation	Agencies responsible for the monitoring
Number of historic buildings restored to a normal level of maintenance.	Municipalities County authorities
Number of historic outbuildings restored to a normal level of maintenance	Røros municipality, Outbuildings Project
Number of protected buildings restored to a normal level of maintenance	County authorities Askeladden, the database of the Directorate for Cultural Heritage, maintains an overview of the state of conservation of protected buildings
Number of listed churches restored to a normal level of maintenance	Directorate for Cultural Heritage
Number of technical/industrial cultural sites restored	Municipalities and county authorities for private, municipal or county authority ownership Directorate for Cultural Heritage for sites owned by the state
Number of areas with contracts for maintenance and clearance to prevent overgrowth	Municipalities Directorate for Cultural Heritage County Governor"s offices: Environmental department
Number of old roads that are tended in order to prevent overgrowth	Municipalities
Overgrowth of cultural landscapes: the development is to be monitored through the analysis of aerial photographs	Municipalities County authorities Directorate for Cultural Heritage
Construction of holiday homes: the development is monitored through the analysis of aerial photographs	County authorities Directorate for Cultural Heritage
Growth of urban settlements: the development is monitored through the analysis of aerial photographs	County authorities Directorate for Cultural Heritage

9 Action programme 2008-2011

World Heritage Røros Mining Town and the Circumference is a geographically large world heritage area that incorporates a wide variation of elements. Below is a table showing the planned and current projects. If and when the proposal for the extension is accepted, work will be commenced on a second generation management plan.

Action	Parties	Responsible agency	Timeframe
Establish a cooperation council for World Heritage	Municipalities, county authority, County Governor, Directorate for Cultural Heritage, museums, business sector	Directorate for Cultural Heritage	2009-2010
Compile a county development plan for the World Heritage Site and the buffer zone.	County authorities, municipalities and a wide range of sectors	Hedmark and Sør-Trøndelag county authority	2008-2010
Prepare information material about World Heritage for the inhabitants of the municipalities affected	Directorate for Cultural Heritage, municipalities, county authorities	Directorate for Cultural Heritage	2009
Prepare an information plan for the continued nomination process	Directorate for Cultural Heritage, county authorities, municipalities, museums	Directorate for Cultural Heritage	2008-2009
Incorporate World Heritage as a factor in ongoing municipal planning pursuant to the Planning and Building Act.	Municipalities	Municipalities	Ongoing
Publicize the progress of the nomination process on the websites of the municipal and county authorities	Municipalities	Municipalities	2008-2010
World heritage centre: further study	Røros Museum, Røros Reiseliv Travel Cooperative, municipalities, county authorities, Directorate for Cultural Heritage, Norwegian Archive, Library and Museum Authority etc.	Røros Museum	2008-2010
Continue and expand the Outbuildings-Project to include areas outside the existing world heritage area	Directorate for Cultural Heritage, county authorities, municipalities, owners	Directorate for Cultural Heritage Røros municipality	2008 onwards

Action	Parties	Responsible agency	Timeframe
Continue training programmes for craftsmen in the protection of historic buildings	Museums, Røros municipality, Directorate for Cultural Heritage, county authorities, Norwegian Institute for Cultural Heritage Research etc.	The building conservation centre at Røros Museum, the Outbuildings Project	2008 onwards
Continue restoration work on Røros Church	Røros municipality, Directorate for Cultural Heritage	Church Council	2008- 2011
Continue restoration work on state-owned property at Røros		Directorate for Cultural Heritage Røros Museum	2008 onwards
Project on the development of trade in the town centre of Røros	Directorate for Cultural Heritage, Sør-Trøndelag county authority, Property owners	Røros municipality	
Draw up an action plan and carry out activities to increase knowledge of World Heritage in schools	Municipalities, county authority, Ministry of Education and Research, Røros Museum, Nordøsterdals Museum	The schools	2009 onwards
Continue work on the mapping of roads.	Municipalities, museums, organizations	County authorities	2009-2011
Begin work on a second generation management plan	Cooperation council for the World Heritage Røros Mining Town and the Circumference	Directorate for Cultural Heritage	2009-2011
Establish a monitoring and reporting system for state of conservation of the Property	County authorities, municipalities	Directorate for Cultural Heritage	2009-2010 and then ongoing
Sustainable tourism 2015 Pilot project that will work on environmental certification of tourism companies in the region	Tourism industry in Holtålen, Os, Tolga and Røros	Innovation Norway Røros Reiseliv Travel Cooperative	2009-2012

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Statement of Intent

Røros was inscribed on UNESCO's World Heritage List in 1980. An application has now been submitted for an extension of the world heritage area to include cultural heritage sites and cultural landscapes that show why the mining town was established and how it could function and be a driving force for development in the entire mountain region.

The outstanding universal value in Røros Mining Town and the Circumference is closely linked to the requirements of the natural environment: mountain plains, a harsh climate, ore, a network of lakes and rivers, and a long distance to the closest harbour and town of any size. With this as the starting point, a unique mining town with the associated urban agriculture developed. The enormous need for timber and transport characterized the mining operations and the cultural landscape of the Circumference. The copper works utilized the resources of the area while at the same time providing an opportunity for miners, farmers and the Sámi to earn money and create a living for themselves and their families. The outstanding universal value is linked to cultural heritage sites and cultural landscapes that show traces of prospecting, mining operations and smelters, charcoal pits, power stations, cableways, and floatway structures. Other traces include old roads, transport routes, farms providing stables and accommodation for travellers, urban agriculture with summer grazing farms and the summer residences of the town citizens. Together, all the individual elements that have been preserved provide an overall picture of how the mining town functioned. This totality is the justification for the proposal that «Røros Mining Town» be extended, entailing a change of the name of the Property to «Røros Mining Town and the Circumference».

If the extended world heritage area is inscribed on UNESCO's World Heritage List, Norway undertakes to ensure that the values in the area are preserved.

The Statement of Intent covers both the municipalities that possess the world heritage areas and those that are included in the buffer zone. In connection with the application for the extension of the world heritage area, the following bodies are in agreement on the key points given below: the municipalities of Røros, Holtålen, Engerdal, Os, and Tolga, the county authorities of Sør-Trøndelag and Hedmark, the Sámi Parliament, the County Governors of Sør-Trøndelag and Hedmark, the Directorate for Nature Management, the Directorate for Cultural Heritage and the Ministry of the Environment.

- The objective of the nomination of Røros Mining Town and the Circumference as a World Heritage Site is to preserve the cultural heritage and cultural landscape in order to show why the mining town was established here and how the community functioned and developed.

- The historic characteristics, qualities and traditions shall be the foundation and driving force for the development of both business activities and the community as well as of cultural initiatives and good living conditions.

- The mining town shall be preserved as a living urban community without diminishing its special qualities.

- The cultural landscapes – industrial, agrarian and Sámi – shall be preserved and shall be the foundation of living communities.

- Røros and the Circumference shall be managed in accordance with national legislation. Norway's goal for its World Heritage Sites is that they shall stand out as examples of «best practice» in the field of cultural heritage and nature management, and in the promotion of the World Heritage Convention.

Cooperation

It is our common responsibility to ensure that cultural heritage sites, cultural landscapes and the natural environment are preserved and safeguarded. It is also our common responsibility to ensure that business activities can be carried out and developed without encroaching on the outstanding universal value of the World Heritage Site. The municipalities and the relevant authorities at county and state level will assume this responsibility as representatives of the Norwegian state.

A mutual understanding of the various parties' spheres of interest is of key importance for this cooperation.

A cooperation council shall be established in which all levels of management are represented. The council shall ensure uniform treatment of the Property and the buffer zone, and shall initiate the development and exploitation of world heritage status for the benefit of the entire Circumference.

Nils Marstein
Director General
Directorate for Cultural Heritage

Janne Solli
Director General
Directorate for Nature Management

Egil Olli
President
Sàmi Parliament

Sigbjørn Johnsen
County Governor
Hedmark

Siv Tørudbakken
County Chief Commissioner
Hedmark

Kåre Gjønnes
County Governor
Sør-Trøndelag

Hans Vintervold
Mayor of Røros Municipality

Ivar Volden
Mayor of Håltålen Municipality

Erling Aas-Eng
Mayor of Tolga Municipality

Arne Grue
Mayor of Os Municipality

Reidar Åsgård
Mayor of Engerdal Municipality

Tore O. Sandvik
County Mayor
Sør-Trøndelag

ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES
CONSEIL INTERNATIONAL DES MONUMENTS ET DES SITES
CONSEJO INTERNACIONAL DE MONUMENTOS Y SITIOS
МЕЖДУНАРОДНЫЙ СОВЕТ ПО ВОПРОСАМ ПАМЯТНИКОВ И ДОСТОПРИМЕЧАТЕЛЬНЫХ МЕСТ

Our Ref. GB/MA 55

Paris, 14 December 2009

H. E. Mr Harald Neple
Ambassador
Permanent Delegation of the Kingdom of Norway to UNESCO
Maison de l'UNESCO
1 rue Miollis
75732 Paris Cedex 15

World Heritage List: Request for information - Røros Mining Town and the Circumference (Norway)

Dear Sir,

ICOMOS is currently assessing the nomination of "Røros Mining Town and the Circumference" as a World Heritage site, and we thank you for your assistance with the recent ICOMOS Mission to the property.

As part our evaluation process, the ICOMOS World Heritage Panel has now reviewed this nomination and identified a few areas where it considers that further information is needed.

Therefore, we would be pleased if the State Party could consider the following points and additional information:

1. Assess the consequences that the envisioned extension of the runway of the airport (p. 53 of the nomination dossier) may have on the nominated property and the retention of its value over time (i.e. an increased number of tourists may provoke an additional pressure in building activity);

2. Provide detailed information about the timeframe for the development and implementation of the envisioned joint regional Hedmark and Sor- Trondelag county plan for the nominated property and its buffer zone, which, according to the nomination dossier, appears to be the key element of the entire management and protection framework for the proposed extension to Røros Mining Town;

3. Consider to strengthen the protection of Femundshytta and its cultural features in order to ensure their adequate protection over time;

4. Provide update information about the progress in the establishment of the Cooperation Council mentioned in the Statement of Intent;

5. Inform ICOMOS about the timeframe to finalise and implement the Management Plan for the nominated property and its buffer zone so that it contains also a long term vision for the nominated property.

We look forward to your responses to these points which will be of great help in our evaluation process.

ICOMOS has no obligation to contact States Parties during the evaluation process. However, with a view to being as transparent as possible, ICOMOS has agreed to approach States Parties in specific cases. This does not prejudice the ICOMOS recommendation on the nomination and should be

considered as preliminary information. It also does not prejudice the World Heritage Committee's decision.

We would be grateful if you could provide ICOMOS and the World Heritage Centre with the above information by **28 February 2010**.

We thank you in advance for your kind cooperation.

Yours faithfully

Regina Durighello
Director
World Heritage Unit
ICOMOS

Copy to Ms Lisen Roll, Directorate for Culture Heritage Management
UNESCO World Heritage Centre, Paris

SAKSBEHANDLER
Lisen Roll

VÅR REF.
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WORLD HERITAGE LIST - RØROS MINING TOWN AND THE CIRCUMFERENCE - ADDITIONAL INFORMATION

Det vises til brev av 14. desember 2009 fra ICOMOS om tilleggsinformasjon i forbindelse med utvidelse av verdensarvområdet på Røros. Brevet er oversendt oss fra Miljøverndepartementet.
Vedlagt følger Riksantikvarens kommentarer til de fem temaene der ICOMOS ber om tilleggsinformasjon. Informasjonen må være ICOMOS i hende innen 28. februar.
Vi ber Miljøverndepartementet som Statspartspart, besørge dette.

Vennlig hilsen

Unni Grønn (e.f.)
Avdelingsdirektør

Alexander Ytteborg.

Vedlegg:
1) Ang. forlengelse av rullebanen på flyplassen
2) Ang. regionplan for Røros bergstad og Circumferensen
3) Ang. Femundshytta
4) Ang. etablering av verdensarvråd
5) Ang. annengenerasjons forvaltningsplan

DET KONGELIGE
MILJØVERNDEPARTEMENT

Royal Ministry of the Environment

ICOMOS, att Regina Durighello
49-51 rue de la Federation
75015 PARIS

Unesco World Heritage Center
7, place de Fontenoy
75352 Paris 07 SP

Your ref	Our ref	Date
	200701797-/IKV	

World Heritage List - Røros Mining Town and the Circumference - Additional information

Referring to your letter dated 14 December 2009, we would first of all express our appreciation that we are given this opportunity to clarify certain elements of the Norwegian nomination of Røros Mining Town and the Circumference to the World Heritage List.

Please see attached the following information, numbered according to your list of requests:

1) Assessment of the consequences that the envisioned extension of the runway of the airport may have

2) Detailed information about the timeframe of the development and implementation of the envisioned joint regional county plan; *attached* to this is the final version of the Planning Programme

3) Consideration of strengthening the protection of Femundshytten and its cultural features

4) Updated information about the progress in the establishment of the Cooperation Council

5) Information on the timeframe to finalize and implement the Management Plan for the nominated property and is buffer zone

We do hope this information provides you with the necessary answers. If any questions are insufficiently and unclearly answered and thereby pose problems in the assessment of the property, we will be pleased to cooperate in any way to solve them.

Yours sincerely,

Postal address	Office address	Telephone	Department for Cultural Heritage	Our officer
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0030 Oslo	postmottak@md.dep.no	Vat no.	Telefax	+47 (+47) 22245808
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Einar Holtane
Director General

Ingunn Kvisterøy
Senior Adviser

Copy:
The Permanent Delegation of Norway to Unesco

Enclosure 7

1) Assess the consequences that the envisioned extension of the runway of the airport may have on the nominated property, and the retention of its value over time (i.e. an increased number of tourists may provoke additional pressure in building activity).

No political resolutions have been passed on extending the runway, and there are no specific plans for this. Nor has work been started on preparing an impact assessment. The consequences have therefore been evaluated on a general basis.

Municipal land-use plan for Røros town centre
In the municipal land-use plan that was adopted as recently as 28 June 2009, no land has been earmarked for the extension of the runway. Moreover, in the processing of the plan at the political level, no decision was made on extending the runway in the future.

As part of the work on the plan, a booklet analyzing topics in focus was compiled. The municipality states that any extension will necessitate the abandonment of approximately 14 properties, one of which is a well preserved, typical farm with buildings that are particularly worthy of protection. Moreover, the present sewage treatment plant will have to be moved to another site.

The Airport Authorities.
Avinor, a limited company which is wholly owned by the state and is responsible for operating and developing the Norwegian airport network, reports that the existing runway at Røros airport is at present 1,720 metres long. This is adequate for the landing of planes with about 125-130 passengers. The desire locally to extend the runway is associated with a wish for more charter traffic with larger planes. During 2009 a total of 15 charter flights with 30 to 100 people landed at the airport.

An extension will increase the length of the runway to 2,000 metres. Today Avinor is faced with major tasks related to stricter requirements for security zones around all airports in Norway. This is the company's main priority at present. Avinor's consultative statement of 24 September 2008 on the municipal land-use plan for Røros town centre stated that Avinor's long-term plans for Røros do not include a 2,000-metre long runway and that this would therefore only be briefly commented on. According to Avinor, the alternative is that this is carried out as a municipal or local project. It is made clear that any extension of the runway must be towards the south and that consequently the houses and sewage treatment plant south of the runway must be moved/disposed of. Furthermore, in the second round of consultations on the plan, Avinor wrote in a letter of 3 March 2009 that for various technical reasons an extension of the runway would not lead to any substantial changes in the permitted use of the airport.

Extension of the runway and an increase in the number of tourists.
The population base in the Røros area is not sufficiently large to support a prediction that large planes will make regular scheduled flights to and from Røros. Charter traffic showed a very restrained increase last year and this trend is expected to continue. Charter tourists mainly come to Røros to ski in the wintertime. Many of them do not stay in Røros Mining Town but find overnight accommodation outside the town, perhaps visiting the town during the day. At present this is seen as contributing positively to tourism and trade in the town. The Røros area can easily absorb an increase in the number of tourists, particularly in the winter. The town's remoteness and cold climate exclude a greater increase in the number of tourists than that it can tolerate, even in the long-term perspective.

Conclusion

An extension of the runway at the airport has not been prioritized by either the state or the local authorities, and there is no funding in place. Moreover, such an extension would appear to be of very limited benefit for air traffic. The State Party therefore is of the opinion that it is most unlikely that these plans will be realized in the foreseeable future. Should this take place contrary to expectations, an exhaustive process will be initiated in line with the Planning and Building Act. In this case the state party will notify UNESCO's World Heritage Centre and will ensure that an in-depth analysis of the consequences is conducted. In Norway the Ministry of the Environment has the responsibility for monitoring the World Heritage Convention, and this ministry is also the ultimate authority for land-use planning. The State Party will therefore act as a guarantor to ensure that the outstanding universal values are safeguarded in the process.

2) **Provide detailed information about the timeframe for the development and implementation of the envisioned joint regional Hedmark and Sør-Trøndelag county plan for the nominated property an its buffer zone, which according to the nomination dossier , appears to be the key element of the entire management and protection framework for the proposed extension to Røros Mining Town.**

Work on the regional plan started in September 2009. The planning programme was sent on a hearing to the municipalities and other relevant bodies on 20 November 2009 with a deadline for comments on 11 January. The Planning programme was then revised and it has now been adopted by the two County Councils. Please find attached the final version of the Planning Programme, translated into English.

On page 17 in the Planning Programme there is a description of the progress of the work. At present the work is going at full speed. The first edition of the plan will be ready in June 2010 and sent on a hearing to the municipalities. The final edition of the plan will be put before the two County Councils for decision in December 2010.

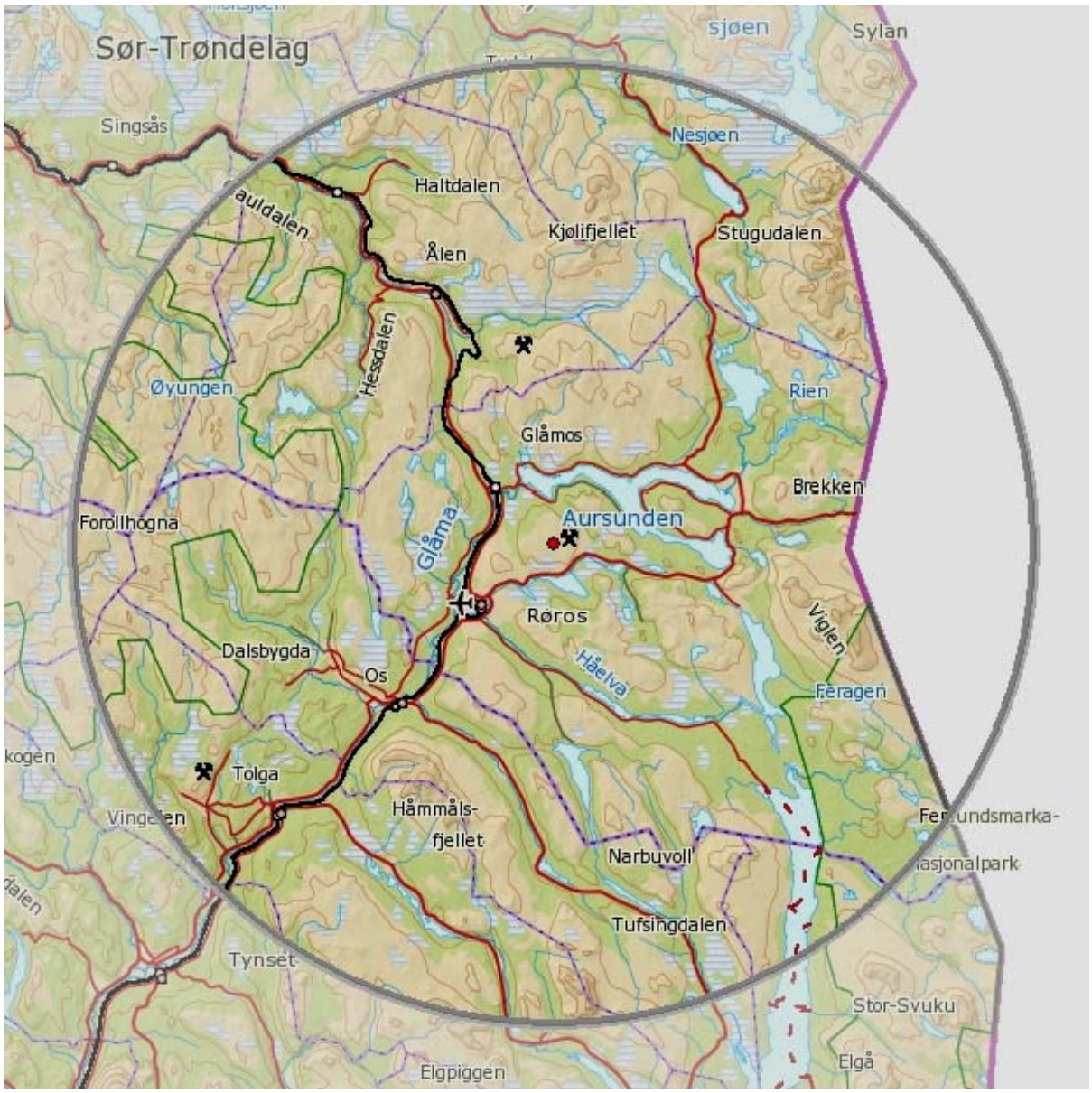
The action part of the plan will be linked to the 2011 budget of the cooperating parties.

PLANNING PROGRAMME

REGIONAL PLAN

Røros Mining Town and the Circumference – cultural heritage as a resource for growth, prosperity and development

2011-2014(20)



From: **The county government of Hedmark and the county executive board of Sør-Trøndelag**

Contents

1. Introduction

The border areas between Sør-Trøndelag and Hedmark consist of vibrant mountain communities with two regional centres, small urban settlements, scattered hamlets and sparsely populated areas. The area comprises eight municipalities linked by roads and the railway that have forged bonds through cooperation, trade and the exchange of services.

Large parts of the land area consist of mountains and uncultivated outlying areas that have been used for many different purposes over the years. Here there are continuous mountainous regions with few encroachments on the natural surroundings. These are attractive recreational areas and are of major significance for biological diversity. There are also landscape protection areas and large national parks. **Agriculture and the widespread use of the outlying areas,** with summer grazing farms and the gathering for fodder (wild grass and moss), have provided a basis for settlement and work, and are a key prerequisite for the values today designated as valuable agricultural landscape, cultural landscape and cultural environments.

The South Sami population has a tradition of **reindeer husbandry** in the same areas. In Sør-Trøndelag a dialogue project has been run since 2006 with the aim of identifying the various considerations on which land-use policies in areas of reindeer husbandry must be based.

Parts of these mountain areas are also important for **wild reindeer**. The Norwegian government intends to designate these areas as national wild reindeer reserves provided that plans are prepared for a uniform management of the land areas.

A rich diversity of cultural heritage sites testifying to a pre-historic hunter-gatherer culture is to be found in the region.

Following the commencement of mining operations here 350 years ago, the history and daily lives of the inhabitants of the mountain communities have been characterized by a close interaction between mining operations, agriculture, reindeer husbandry, hunting and fishing, and in the course of time also tourism and travel.

Since 1980 Røros Mining Town has had world heritage status with the commitments this entails. In order to disseminate and better preserve a much larger part of the **history of the mines**, and to perceive more clearly how these operations have affected far more local communities in the region than merely Røros Mining Town, an application has been submitted for world heritage status for an extended area with a “buffer zone” inside the circumference of Røros Copper Works.

The main challenge faced by the administration is that a number of worthy objectives may involve conflicting interests, and that local, regional and national considerations are not necessarily always in accord. Thus dealing with relevant issues in separate and independent planning processes will not lead to a satisfactory preservation of the whole. The processes will also be difficult to coordinate and unnecessarily labour-intensive.

Therefore it is proposed to compile two strategy documents in parallel processes:

- A regional land-use strategy policy for the mountain areas of Sør-Trøndelag and Hedmark
- A regional master plan for Røros Mining Town and the Circumference

1. **A regional land-use strategy policy for the mountain areas in the border regions of Sør-Trøndelag and Hedmark (15 municipalities)**
   A regional land-use strategy policy will have the adopted county master plans as a starting point. Through the work on drawing up a strategy policy, the general principles of the county master plans and other relevant plans and decisions will be specified and clarified in respect of the issues that are of importance for these mountain areas.

   The regional land-use strategy policy is a political policy document that sets out guiding principles for the regional master plans that are prepared at a later stage pursuant to the Norwegian Planning and Building Act. Nonetheless in the work on strategy it has been deemed expedient to set up a process with the same work methods and planning tools as a regional master plan. This is a process that seeks to coordinate different interests and that aims at arriving at a set of common principles/policy strategies for the management of resources and land areas in the mountain region. The overall point of departure constituted by the strategy will then form the basis of follow-up action in the form of action-oriented thematic plans/action plans.

   A memorandum has been prepared for this work showing the content, progression, organization and participation.

2. **Regional master plan for Røros Mining Town and the Circumference (eight Municipalities)**
   Røros Mining Town was inscribed on UNESCOs list of the world's cultural and natural heritage in 1980. An application has now been submitted for an extension of the world heritage area to include cultural heritage and cultural landscape that show why the mining town was established and how it has been able to function and advance the development of the entire mountain region.

   The outstanding universal value in Røros Mining Town and the Circumference is closely linked to the requirements of the natural environment: mountain plains with sparse forests, a harsh climate, ore, a network of lakes and rivers. In addition the closest town of any size was a considerable distance away. With this as the starting point, a unique mining town with the associated urban agriculture developed. The enormous need for timber and transport characterized the mining operations and the cultural landscape of the Circumference. The copper works utilized the resources of the area while at the same time providing the opportunity for farmers and the Sámi to earn money. The outstanding universal value is linked to cultural heritage sites and environments, and also to cultural landscapes that show traces of prospecting, mining operations, smelters, and charcoal pits. Other traces include old roads, transport routes, floatway structures, farms providing stables and accommodation for travellers, power stations, cableways, urban agriculture, the summer grazing farms and summer residences of the town citizens, the small communities and urban settlements that arose or developed as a consequence of the mining operations, the landscape characterized by summer grazing farms and other uses of the outlying areas, and Sámi cultural environments. Together, all the individual elements that have been preserved provide an overall picture of how the mining town functioned

   In conjunction with the present application for the extension of the world heritage area the municipalities most affected inside the Circumference, with the exception of

Tydal, have undertaken to cooperate in and to promote the uniform management of the heritage. This management and conservation shall set an example that others can follow.
This is the background for the resolution and decision that a regional master plan is to be prepared for **Røros Mining Town and the Circumference** in addition to a review of the dissemination of mining history in the entire region.

The proposal for the planning programme for this work is presented below.

2. The plan's objectives and basis

2.1. Objectives

The objective of the planning work is twofold. The first main objective is to develop a management plan – a steering instrument that will preserve, develop and promote access to our rich culture heritage for present and future generations. The plan must provide clear guiding principles for the preservation of cultural heritage, cultural environments and cultural landscape, and put emphasis on practical cooperation with owners, municipalities, museums, the regional business sector and voluntary organizations. The goal is that the cultural heritage of Røros Mining Town and the Circumference shall be accessible and attractive, and create a strong identity.

The second main objective is to develop an appropriate and efficient management tool that clarifies goals and strategies for growth, prosperity and development in the mountain villages, based on the broad cultural heritage associated with mining operations. This has been and will continue to be an important point of departure for growth, prosperity and development in these areas, and the planning work aims to promote interaction between protection, use, and growth and prosperity. Important requirements in this respect are:

- ensuring a common land-use policy to safeguard and facilitate the experience of cultural heritage and cultural environments
- repairing and making active use of cultural monuments and sites
- disseminating the history of Røros Mining Town and the Circumference and raising the awareness of these qualities in the local community and in the tourism and travel industry
- drawing on knowledge of and about cultural heritage that can be utilized in communication, experience, innovation and development.

The plan must:

- provide a basis for the sound, long-term management of the history of the mines and cultural heritage
- provide a foundation for the distribution of resources
- encourage cooperation between public administration, owners, museums, the business sector and voluntary organizations
- provide a platform for a stronger economy and greater initiatives to develop this unique cultural heritage

- develop joint political guidelines on land-use, management and preservation measures for cultural heritage, cultural environments and cultural landscapes
- develop joint guidelines for preservation, adaptation and communication
- strengthen the basis for growth, prosperity and development in the mountain villages, for example in the field of travel and tourism
- provide more predictability in the management of cultural heritage for all affected parties
- maintain and enhance positive interest in and support for cultural heritage and the cultural environments in the region
- promote the sustainable management and active dissemination of the values of cultural and natural resources.

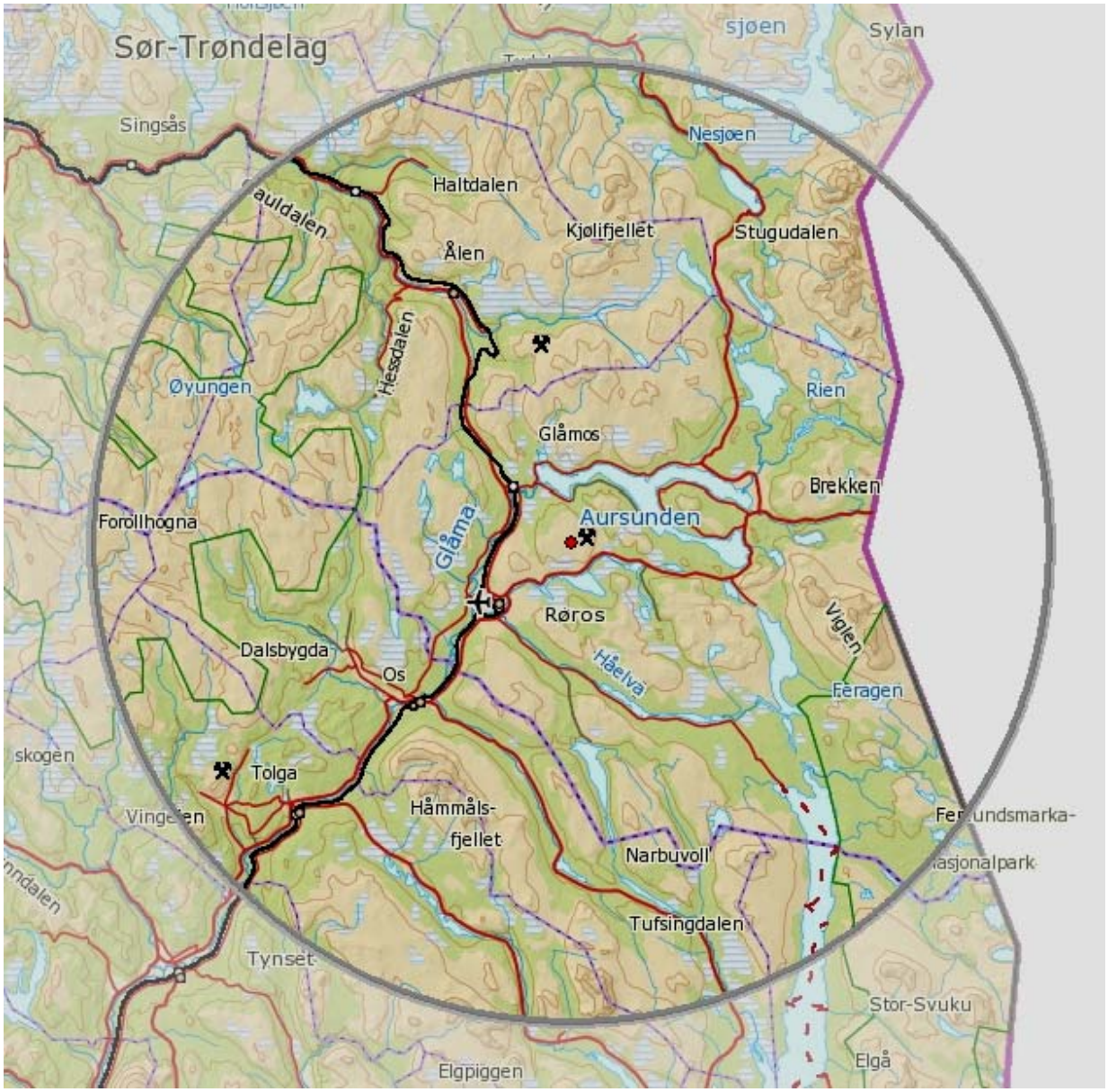
2.2. Geographical delimitation

Geographical delimitation of the management plan

The plan covers parts of Sør-Trøndelag and Hedmark, affecting land areas in eight municipalities – Tynset, Tolga, Os and Engerdal in the county of Hedmark as well as Røros, Holtålen, Tydal and Midtre Gauldal in the county of Sør-Trøndelag.

The plan applies first and foremost to the area inside the circle. However, in some circumstances it will be expedient to apply the same principles and work methods in the adjoining areas.

Figure 1 shows the geographical delimitation of the management plan



2.3 Relevant legislation and guiding principles in international, national, and regional policies

Relevant legislation

The Norwegian Planning and Building Act
The management plan is prepared as a regional master plan in line with the new Planning and Building Act. This means that it does not require the approval of the Ministry of the Environment but is approved by the county councils. The plan will provide guiding principles for public administration and give guidelines for trade and industry and other involved parties in the counties. The plan will not in itself be legally binding but the new Planning and Building Act prescribes that regional planning provisions with a legal application can be passed on the basis of the adopted plan. Future needs for the use of regional planning provisions in the regional master plan will be evaluated during or following the planning work.

The plan is grounded on the new Planning and Building Act, and is prepared as a regional master plan as described in section 8-1 of the Act where it is stated that a regional master plan can be prepared for particular fields of activity, themes or geographical areas. This section also says that the regional master plan can be adopted with the final approval of the regional planning authority, i.e. the county council, and that an action plan for the implementation of the plan must also be prepared which must also be passed by the regional authority and updated each year.

Section 3-1 of the new Planning and Building Act emphasizes that the planning must safeguard land resources and the characteristics of the landscape and must ensure the protection of valuable landscape and cultural environments.

The Cultural Heritage Act:

§ 1. *Purpose of the Act:*

The purpose of this Act is to protect archaeological and architectural monuments and sites, and cultural environments in all their variety and detail, both as part of our cultural heritage and identity, and as an element in the overall environment and resource management.

It is a national responsibility to safeguard these resources as scientific source material and as an enduring basis for the experience of present and future generations and for their self-awareness, enjoyment and activities.

The intention of this Act must also be taken into account in any decision taken pursuant to another Act that may affect the cultural heritage.

International frameworks and principles

- *UNESCO – The convention concerning the protection of the world cultural and natural heritage - World Heritage Convention* was adopted in 1972. The overall aim of the convention is to identify cultural and natural heritage of outstanding universal value, and for this purpose a list of world cultural and natural heritage was established. Today a total of 189 states have acceded to the convention. The convention sets forth general principles on how states shall protect and manage their heritage for future generations. The convention defines the kinds of cultural and natural heritage sites that can be evaluated for inscription on the World Heritage List, and stipulates the state party's obligations to protect and preserve them. By ratifying the convention, each state party commits itself to preserving not only World Heritage Sites on its own territory but also to protect national heritage. (See www.unesco.no and whc.unesco.org)

- *Operational Guidelines for the Implementation of the Convention of World Heritage*. These guidelines describe how World Heritage must be managed and how qualities and values must be safeguarded for future generations. The Guidelines apply to all World Heritage. Requirements are also set forth on periodic reporting by the state party to UNESCO regarding how the management of World Heritage is actually taking place.
- *The EU Water Framework Directive* defines general minimum standards for water resources and pollution in the EU/EEA area. This directive is applicable when dealing with pollution and run-off from the many mining areas and smelters in the region.
- *The European Landscape Convention* (ratified in 2004) sets out definitions of cultural landscape and provides a general framework for how we shall protect, manage and plan, cultural landscapes. It sets criteria for the active participation of the public in this work.

National policies and goals

The planning work has a national platform in:

- Report no. 22 to the Storting (1999-2000) *Kjelder til kunnskap og oppleving* (Sources of knowledge and experience).
- Official Norwegian Report 2002:1: *Fortid former framtid. Utfordringer i en ny kulturminnepolitkk* (The past shapes the future. Challenges for a new cultural heritage policy).
- Report no. 16 to the Storting (2004-2005), Ministry of the Environment: *Leve med kulturminner* (Living with our cultural heritage). In this report the government sets out strategic goals and three national performance targets for the conservation of cultural heritage in Norway. The report states the following (*This translation is unofficial*):

  The diversity of cultural heritage and cultural heritage environments must be managed and preserved as resources for general use and as the basis of knowledge, experience, and growth and prosperity. A representative selection of cultural heritage and cultural heritage environments must be preserved in a long-term perspective.

  1. The annual loss of cultural heritage and cultural environments deemed worthy of protection which is due to their removal, destruction or decay must be minimized. By 2020 the loss must not exceed 0.5 per cent annually.
  2. Cultural heritage and cultural heritage environments subject to a protection order or worthy of protection must be secured and must have reached an ordinary state of maintenance by 2020.
  3. The geographical, social, ethnic, business-related and contemporary diversity in cultural heritage and cultural heritage environments that are under a permanent protection order must be improved, and a representative selection must be protected by 2020.

- Reports no. 21 (2004-2005) and 26 (2006-2007) to the Storting *The Government's Environmental Policy and the State of the Environment in Norway*.

- District and regional policies are discussed in Report no. 25 to the Storting (2008-2009) *Lokal vekst og framtidstru* (Local growth and confidence in the future). In addition, the programme to establish growth and prosperity in the cultural heritage area is presented. This represents a national goal intended to encourage more active use of the potential inherent in cultural heritage.

- *Verdifulle opplevelser - nasjonal strategi for reiselivsnæringen (2007)* (Valuable experiences – a national strategy for the travel industry): Ministry of Trade and Industry.
  This focuses on Norway as a sustainable travel destination. Status as a world heritage area leads to high expectations as to the management of values embodied in cultural and natural resources. The government intends the Norwegian world heritage areas to stand out as a beacon for best practice in the management of natural resources and cultural heritage.
  .

Regional policies and goals

County master plans and county land-use plans

- *The county master plan for Hedmark 2009-2012 (20)* describes cultural heritage as a resource for knowledge, experience and development in Hedmark. The vision of making Hedmark's cultural heritage a living, meaningful part of the future must be followed up in concrete terms by focusing on conservation, growth and prosperity, business development based on cultural heritage and skills enhancement.
- Important policy areas in the years ahead include protection through use, growth and prosperity, and business development based on cultural heritage and local development. These initiatives are embodied specifically in the proposed extension of World Heritage Røros Mining Town to incorporate large areas of Hedmark (Røros Mining Town and the Circumference).
- In the 2005 county land-use plan for the protection and use of cultural heritage and cultural environments – *Kulturminner for Hedmarks framtid* (Cultural heritage for Hedmark's future) – sites related to mining activities are described in the section on selected themes and protection areas. It is stated that central Norway's mining history, which was later centred around Røros, originally started in Nord-Østerdalen.
- In the *joint county master plan for Sør- and Nord-Trøndelag 2009-2012* the significance of culture is discussed.
- The strategy is intended to reinforce the special qualities of small towns and districts, and to base further development on these qualities. Cultural monuments and sites constitute a unique advantage for Røros Mining Town and the areas inside the Circumference.
- The action plan *Kulturminner i Sør-Trøndelag 2002-2012* (Cultural heritage in Sør-Trøndelag) 2002-2012) deals with priorities and measures for the most important cultural monuments and sites, and cultural environments in Sør-Trøndelag. Røros World Heritage and mining history from 1600 onwards is highlighted as a priority area.
- In *Reiselivsstrategien for Trøndelag, 2008-2020* (Travel and tourism strategy for Trøndelag, 2008-2020) Røros is designated as one of the four beacons. Planning work must be coordinated with the follow-up of the travel and tourism strategy.
- *Blilyst* ☺ is a programme encouraging people to settle and become established in inland muncipalities on the Trøndelag side of the region, while Tolga and Os participate in parts of this programme from Hedmark.

Statement of Intent signed by all county council chairmen and mayors

The Statement of Intent covers both municipalities that have core areas and those that form part of the buffer zone. In connection with the application for the extension of the world heritage area, the following bodies are in agreement on the key points given below: the municipalities of Røros, Holtålen, Engerdal, Os, and Tolga, the county authorities of Sør-Trøndelag and Hedmark, the Sámi Parliament, the County Governors of Sør-Trøndelag and Hedmark, the Directorate for Nature Management, the Directorate for Cultural Heritage and the Ministry of the Environment.

- The objective of the nomination of Røros Mining Town and the Circumference as a World Heritage Site is to preserve the cultural heritage and cultural landscape in order to show why the mining town was established here and how the community functioned and developed.
- The historic characteristics, qualities and traditions shall be the foundation and driving force for the development of both business activities and the community as well as of cultural initiatives and good living conditions.
- The mining town shall be preserved as a living urban community without diminishing its special qualities.
- The cultural landscapes – industrial, agrarian and Sámi – shall be preserved and shall be the foundation of living communities.
- Røros and the Circumference shall be managed in accordance with national legislation. Norway's goal for its World Heritage Sites is that they shall stand out as examples of "best practice" in the field of cultural heritage and nature management, and in the promotion of the World Heritage Convention.

Similar resolution on the planning work passed by Sør-Trøndelag county council and by Hedmark county council:

1) The county council endorses the existing Statement of Intent.
2) The county council views it as extremely positive that the work to extend World Heritage in connection with Røros Mining Town is continuing, and that a broad process has taken place allowing the participation of municipalities, public bodies, landowners, local associations and museums as well as other interested parties.
3) The county council requests that a joint county land-use plan/master plan for World Heritage Røros Mining Town be prepared in order to ensure the overall, unified management of world heritage values in the municipalities and counties involved.
4) The county council perceives opportunities for closer cooperation in the management and development of mining history in the entire region.

Cooperation

It is our common responsibility to ensure that cultural heritage, cultural landscapes and the natural environment are preserved and safeguarded. It is also our common responsibility to ensure that business activities can be carried out and developed without encroaching on the outstanding universal value of the World Heritage Site. The municipalities and the relevant authorities at county and state level will assume this responsibility as representatives of the Norwegian state.

A mutual understanding of the various parties' spheres of interest is of key importance for this cooperation. A cooperation council will be established in which all levels of management will be represented. The council will ensure uniform treatment of World Heritage in the area and initiate the development and exploitation of world heritage status for the benefit of the entire Circumference. As of today an interim council has been established. The final organization and composition of the council will be one of the topics to be discussed in the planning work.

3. Main challenges

The Statement of Intent underlined that ensuring best practice in the management of cultural heritage is a national objective. This is the main guiding principle underlying the main challenges.

3.1. Cultural heritage – resources and premises for societal development

- A platform for and understanding of cultural heritage values in community and land-use planning. In many cases there may be conflicting relationships between cultural heritage protection interests and development interests. The challenge is to minimize conflicts and rather to promote an understanding among municipalities and private owners/stakeholders that cultural heritage can be both a resource and a premise for sound societal development and growth and prosperity.

3.2. Cultural heritage as a resource promoting identity, attractiveness and growth and prosperity

For many years Røros Mining Town has shown that its cultural heritage is an important resource in strengthening identity and the sense of belonging. Already a strong awareness of this has been achieved in Røros Mining Town and the surrounding region. The challenge is to build on this awareness with the aim of encouraging migration and settlement.

- Travel and tourism are enjoying a period of growth. One priority area is culture and experience-based tourism. Ensuring that visitors enjoy high-quality, meaningful access to cultural monuments and sites/cultural environments while at the same time safeguarding the protection and integrity of these presents a challenge. Efforts must also be made to achieve this in line with universal design.
- Knowledge of cultural heritage and how individual cultural monuments and sites have been created will also lead to the growth of specialist workplaces and the new development of production methods. In addition, research into cultural heritage can create a stimulating environment for teaching, training and education in this special field.

3.3. Loss and deterioration of cultural heritage

- The uncontrolled loss of cultural monuments and sites as a result of their removal, destruction or decay is far too high. The national target is that by 2020 this loss shall not exceed 0.5 per cent annually. Putting in place strategies that ensure that this target is reached in Røros Mining Town and the Circumference poses a challenge. In order to stand out as an area of best practice in cultural heritage management, the loss should be well within the national target.
- Cultural heritage in the area is also exposed to decay and deterioration. The national goal is that protected cultural monuments and sites and those worthy of protection as well as cultural environments shall be secured and have a normal level of maintenance by 2020.The challenge is to secure the long-term conservation and diversity of the cultural environments and to meet the national goal in the region. In that connection it is of interest to further develop and extend an initiative such as the Outbuildings Project.

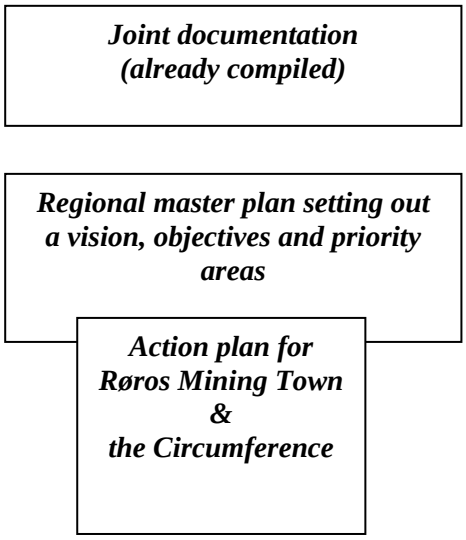
3.4. Interaction, cooperation and communication

- Another challenge is to strengthen the interaction on cultural heritage matters between public administration, owners, museums, the regional business sector and organizations.
- Dissemination of information is a key topic, and facilitating the provision of good and varied communication that will reach many groups among both visitors and inhabitants is also a challenge.

3.5. Knowledge, research and international cooperation

- High-quality, future-oriented management demands a high degree of competence. Developing such competence so that it benefits the local community, the business sector and the population poses a challenge. This lies in ensuring that knowledge and competence develop continuously and that they do not deteriorate.
- Single out themes/priority areas in research and development in the region that should be assigned priority.
- Develop international cooperation through networks and learning.
- Develop national cooperation through networks and learning.

4. The plan's organization and structure



4.1. Joint documentation

A large dossier of documentation describing the defined area has been compiled through the work on the application to UNESCO. This can also be made use of in the work on the regional master plan as a description of the values and potential of cultural heritage and cultural environments.

4.2. Regional master plan: cultural heritage – potential for growth, prosperity and development

- Vision and main goal
- Prioritized themes/priority areas will each be described in respect of:
    - challenges
    - objectives and priority areas

- Strategies for management, the creation of growth and prosperity, and development
- Strategies for adaptation, communication

4.3. Action plan

The master plan is followed up by an *Action Plan* which forms a firm basis for actions, cooperation and the distribution of resources. The action plan will be updated every second year.

5. Organization, participation and work progression

5.1 Organization and management

The planning process is intended to be broadly based both politically and in specialist areas, not only within the county authorities but also in the municipalities and among other players in the cooperation. The preparation of the plan will mainly be carried out by the secretariat. However, it is expected that some specialist services must be procured in addition.

Political steering group
The county government of Hedmark and the county executive board of Sør-Trøndelag

Political advisory committee
The political steering group consists of a representative from the county executive board of Sør-Trøndelag, the county government of Hedmark, Røros municipality and one of the remaining municipalities.

Secretariat /administrative project group
The management and follow-up of the project is carried out by the secretariat:

- from Hedmark: County Director – unit for transport, planning and the environment /the cultural heritage section: head of section and cultural heritage officer. In addition, Hedmark county authority funds a 20 per cent planning coordinator position for the secretariat.
- from Sør-Trøndelag: department of regional development – cultural heritage officer, cultural heritage manager and planning adviser

The administrative project group coordinates the work and meets regularly. When milestones in the work are reached, the heads of the specialist groups participate.

Cooperation council/interim council for World Heritage Røros Mining Town and the Circumference
An interim council was appointed on 27 January 2010, consisting of the following members:
the mayors of Røros, Holtålen, Os, Tolga and Engerdal municipalities, a representative of the Sør-Trøndelag county authority, a representative of the Hedmark county authority and a representative of the Sámi Parliament. The following are observers with the right to speak: a representative of the Directorate for Cultural Heritage, a representative of the Directorate for Nature Management, a representative of the county museum in each county as well as the Ministry of the Environment when appropriate. The mayor of Røros is the chair of the council.

The cooperation council/interim council will assume responsibility for one of the main themes.

Topic groups
Topic groups will be established for each of the main themes in the plan. The groups consist of experts on the subject from public administration, representatives of the private business sector and organizations.

TO PROTECT – Management of mining history/cultural monuments and sites

TO KNOW – Dissemination of information on mining history/cultural monuments and sites

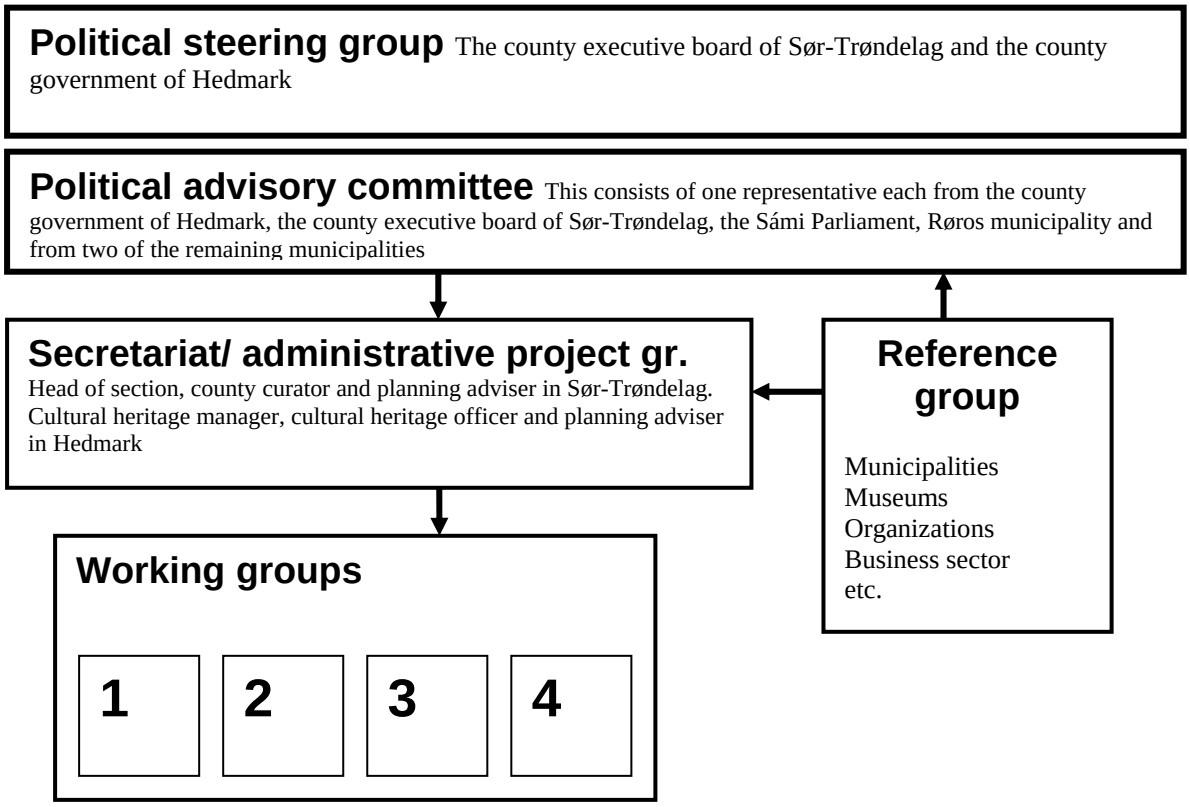
TO LIVE OFF – Development of the business sector related to mining history/cultural monuments and sites

TO LIVE WITH – Relationship between mining and other activities in the community

Reference group
The reference group consists of representatives of the municipalities, cooperating partners and other affected organizations. It provides input for the work, and reports to the secretariat/administrative project group. The reference group is continuously updated on the planning work, and the members are called in during the process.

The Directorate for Cultural Heritage acts as an observer in the planning work.

5.2. Participation – dialogue processes and arenas



This is a preliminary overview.

*An **information plan** will be prepared to provide a more detailed framework for the information activities.*

Planning work will be of considerable interest to the public, and should be used to raise knowledge and awareness of the cultural values represented by Røros Mining Town and the Circumference. The planning work will also attract the attention of municipalities as well as various interest groups. Major emphasis will be placed on achieving a firm platform for planning work in the municipalities. The *reference group* functions as an important link between municipalities, organizations, the business

sector and other relevant cooperation partners. The reference group will be continuously updated on the planning work, and will be called in during the process.
Moreover, it is assumed that important cooperation partners such as museums, schools, tourist offices, the regional business sector and history associations will participate in the process by means of meetings and extensive information activities.

Information and participation during and following the planning process will be examined in more detail during the round of consultations. It may be necessary to procure external assistance.

5.3. Work progression

The planning work consists of three phases:
1. Start-up and preparation of the planning programme
2. Preparation of a regional master plan
3. Action programme and economy

Start-up and planning programme

- Proposal for the planning programme prepared in the period from August – September 2009
- Discussed by the county government on 2 November 2009 and by the county executive board on 20 October 2009
- Round of consultations from 20 November 2009 to 11 January 2010. During the round of consultations, dialogue meetings/hearings will be conducted with the consultative parties
- Completion of administrative process on 1 February 2010
- Planning programme adopted by the county executive board and the county parliament in February 2010

Preparation of documentation and the regional master plan

- Proposal for a regional master plan for Røros Mining Town and the Circumference and an action programme will be prepared in the period between 1 March 2010 and 1 June 2010.
    - Working groups to be established in March 2010
    - Working groups to prepare a preliminary draft of the planning content in their own areas, with an accompanying action programme
    - Project management/secretariat has the responsibility for coordination and cooperation between the working groups, and for the involvement of the steering group and consultation
- The joint proposal will be submitted for approval at the political level with discussion in the county government/county executive committee and the county council in June 2010.

Hearing and resolution

- To be processed and sent out on a round of consultations from the county executive board and the county government of June 2010
- Consultation period from 1 August 2010 to 1 October 2010. During the consultation period dialogue meetings/hearings with the consultative parties after the summer vacation
- Administrative completion in October and November 2010
- Final processing by the county councils in December 2010

Action programmes and economy

To be prepared during the first half of 2011

Economy
The action programme will be linked to the economic plan of the cooperating parties

3) "Consider strengthening the protection of Femundshytta and its cultural features in order to ensure their adequate protection over time."

At present we regard the protection of the cultural landscape and the outstanding universal value as adequate at the Femundshytta smelter. The area is remote and somewhat inaccessible. In summer, tourists arrive by boat over Lake Femunden. A road has been built to Femundshytta for the use of the owner. This road, which is so narrow that two cars cannot pass, is closed to ordinary traffic by a barrier. Femundshytta is designated as an ANR area (areas designated for agriculture, natural environments and recreational purposes) in the municipal master plan for Engerdal (cf. Nomination document, page 58). In such areas there is a general ban on the construction of new buildings or industrial plants. Permission may be given on application for the construction of small-scale new buildings that are essential for the running of the farm.

The owners of Femundshytta, Klas and Milda Femundshytten, are advanced in years but still take active part in the running of the farm. The plan is that their grandchild will take over the farm in due course, and in that connection it is likely that a need will arise to improve standards and a wish to carry out alterations. As a result of ICOMOS' request, we have therefore considered strengthening the protection of the cultural heritage and the cultural landscape.

As the introduction and start-up of a more lengthy process, Riksantikvaren, the Directorate for Cultural Heritage, therefore held a preliminary meeting on 12 February 2010 with the owners, Engerdal municipality, Hedmark county authority and the project leader for the work on the regional plan for Røros Mining town and the Circumference. The municipality was represented by the museum administrator, the chief administrative officer and the mayor. The owners gave an overview of their plans, and on this basis the Directorate will in conjunction with municipal and regional management undertake an assessment to identify the instruments that are best suited for strengthening the protection of cultural heritage and the cultural landscape while ensuring the continued operation of the farm.

4) "Provide update information about the progress in the establishment of the Cooperation Council mentioned in the Statement of Intent."

An informal council has functioned throughout the entire period of work on the extension of the Røros world heritage area. Present at all meetings have been the mayors of the five active municipalities and their chief municipal executives together with relevant administrative staff, in addition to representatives of the two largest museums in the area and representatives of the two county authorities, the Sámi Parliament and the Directorate for Cultural Heritage. Representatives of the two county governor's offices have also taken part in the work.

The informal cooperation council held a meeting at Røros on 27 January 2010. At the meeting the cooperation council was formalized through the appointment of an interim council for World Heritage Røros Mining Town and the Circumference. The interim council will function until, if and when, the proposal for an extension of the world heritage area is formally adopted by the World Heritage Committee. The interim council will then be replaced by a permanent council.

It was resolved that the interim council should have a political composition, and the following were appointed as members:
The mayors of Røros, Holtålen, Os, Tolga and Engerdal municipalities
A representative of the Sør-Trøndelag county authority
A representative of the Hedmark county authority
A representative of the Sámi Parliament

The mayor of the municipality of Røros, Hans Vintervold, was appointed as the chair of the council.

A representative of each of the two museums involved was appointed as observers with the right to speak.

The Directorate for Cultural Heritage will contribute funding for the appointment of a temporary secretary for the interim council, and the state party will monitor the work of the council.

The interim council will have the following tasks:

- Drawing up regulations for the permanent cooperation council for Røros Mining Town and the Circumference
- Clarifying the establishment of a permanent secretariat for the council/a local world heritage coordinator
- Acting as a reference group and participating actively in the work of drawing up the regional master plan for the Circumference
- Commencing the work on a new management plan consisting of long-term objectives and an action plan. The plan will replace the existing management plan and will come into force from 2011 onwards.

At the meeting on 27 January the preliminary proposal for a vision with a ten-year perspective was presented. More work is to be done on this proposal. (See attachment to information leaflet 5.)

5) "Inform ICOMOS about the timeframe to finalize and implement the Management Plan for the nominated property and its buffer zone so that it also contains a long-term vision for the nominated property."

In order to best coordinate all the existing plans and the new plans that are under preparation for Røros Mining Town and the Circumference, it is deemed expedient to proceed step by step. We can thus ensure that the plans do not overlap or even contradict each other. This is a comprehensive, time-consuming process. An overview of the documents that are important for the management of the extended world heritage area is given below.

Declaration of Intent
The Declaration of Intent requires the various levels of administration at local, regional and national level to preserve cultural heritage and cultural landscape in the world heritage areas and the buffer zone. The Declaration of Intent sets out five key management goals. These are long-term commitments and long-term goals.

Current management plan: Management Framework and Plans
The Declaration of Intent also forms the basis of the management plan that accompanies the nomination document, and this sets out the same goals. However, as ICOMOS points out, a long-term vision has not been prepared. Work on a vision with a ten-year perspective has now been commenced (cf. last paragraph below and attachment). The current management plan contains an action programme for the period from 2008-2011 (cf. page 33). In 2010, Røros Mining Town will have had World Heritage status for 30 years, and the action programme is largely a continuation of ongoing activities that have been broadened to incorporate the extension of the world heritage area. We have been very satisfied with the work carried out in Røros Mining Town during the last 30 years, and the action programme therefore has a very sound platform. The management plan is regarded as a first-generation plan which will be further developed as a second-generation plan (see below).

Municipal land-use plan for Røros town centre
The new municipal land-use plan for Røros town centre was adopted on 28 June 2009 and has entered into force. This is the main instrument in the daily management of the cultural heritage and cultural landscape in Røros Mining Town and the surrounding area (cf. Management Framework and Plans, page 17, and the Nomination Dossier, page 57). The land-use plan covers the parts of the extended world heritage area in which development pressure is greatest. The boundaries of the planning area follow the boundaries of the world heritage area when this is appropriate. World heritage status in the extended area is described as forming the basis of the plan and as providing the plan's requirements. A cultural-historical place analysis and landscape assessment as well as a municipal management plan have been prepared for the area (February 2008).

Regional master plan for Røros Mining Town and the Circumference
The work on the joint regional master plan for the world heritage area in Sør-Trøndelag and Hedmark is well underway and will be completed during the final processing of the plan at the political level in December 2010. (See information leaflet 2.) The background for the planning work is the extension of the world heritage area. The plan comprises the three components in the proposed serial nomination and buffer zone. It will provide guidelines for the unified management and care of the cultural heritage and cultural landscape in the whole area, and for how world heritage status can benefit the entire Circumference. The plan is a pilot project in three ways:

- No regional master plan has previously been made for World Heritage.
- The plan will constitute a pilot project in the application of the new Planning and Building Act (which came into force on 1 July 2009).
- A new challenge will be to draw up a regional master plan that includes areas in two different counties with authorities that have a somewhat different organization.

The plan will apply from 2011 to 2014 (20). Pursuant to the Planning and Building Act, the plans must be reviewed at least once during each election period, i.e. every fourth year. The plans must be dynamic and must allow adjustments to be made when required.

Time schedule for the second-generation management plan for World Heritage
The second-generation management plan must coordinate and unify all existing plans, and elaborate on them, adding topics that are not adequately covered by other plans.

Work on the regional master plan is a priority in 2010. When this is nearing completion, work on the second generation management plan for the World Heritage will commence in full. The start-up date is estimated to be September 2010. The plan will be adopted and will enter into force in June 2011. Meanwhile the first-generation management plan and action programme will apply until 2011.

Long-term vision
As a start to the work on the second-generation management plan, the task of drawing up a vision with a ten-year perspective up to 2020 has been initiated. A proposal was discussed at a meeting in the newly-formed interim council for World Heritage on 27 January 2010. It was agreed that the proposal should form the starting point of further work on a long-term vision. (The proposal is attached.)

Vision for World Heritage Røros Mining Town and the Circumference

Ten-year perspective: World Heritage in 2020

1. The World Heritage values at the time of inscription will be safeguarded, developed and strengthened through local interest and involvement. The condition of cultural heritage and the cultural landscape will be improved.
2. All age groups in the population will be well informed about the international importance of their surroundings and will regard World Heritage as a driving force for the development of the local communities in the Circumference.
3. World heritage status will continue to promote a strong local and national identity through the sustainable use of cultural heritage and the natural surroundings in the area.
4. A strong partnership will be forged in the region for the protection, use, dissemination, development and general growth associated with World Heritage.
5. A professional environment with expertise in the tending of the cultural landscape will be established, with a firm basis in agricultural organizations.
6. Røros Mining Town will be maintained as a living town with a combination of permanent housing and business activities for the local population and visitors.
7. Tourism will be sustainable and all products will have the stamp of quality – overnight accommodation, restaurants and cafés, activities, and information about the cultural environment, landscape and World Heritage.
8. Parts of the extensive transport system within the Circumference will be brought back into use and a number of overgrown, old transport routes will be cleared and utilized.
9. Important industrial cultural landscapes will be cleared regularly so that the traces of mining operations can easily be seen. Appropriate historical information will be in place on the sites.
10. The urban land plots around Røros Mining Town will be tended through active use. Large parts of the agricultural landscape in the mountain communities in the Circumference are intact, and active, sustainable agriculture will be pursued. A number of overgrown areas will be brought back into use.
11. A number of farmers will be engaged in the small-scale production of local produce – and of new products for high-quality cuisine.
12. Skills in traditional building handicrafts in the entire Circumference will be further developed. All the craft workers in the area will share a common platform and will be familiar with the general principles of repairing old buildings. Many of them will have developed expertise in a number of specialist areas so that the handicrafts community in the Røros area as a whole will stand out as a national and international resource environment.
13. The practical maintenance, repair of housing and tending of the cultural landscape will arouse widespread international interest and will be held up as examples of “soft conservation”.
14. The world heritage council for Røros Mining Town and the Circumference will be a well-functioning cooperative body and will play a key role in the unified management of cultural heritage in the entire Circumference in line with the ambitions for “best practice”. The council will have taken steps to put innovative initiatives in place in the management of the cultural environment and the cultural landscape.

United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织

The Culture Sector

H. E. Mr Harald Neple
Ambassador, Permanent
Representative of the Kingdom of
Norway to OECD,
Permanent Delegation of the
Kingdom of Norway to UNESCO
UNESCO House

Ref : WHC/74/3296/NO/LS/JSW/FB 21 October 2010

Subject: Nomination of the extension of *Røros Mining Town and the Circumference* (C 55bis) (Norway) World Heritage property

Dear Ambassador,

I would like to inform you that the World Heritage Committee, at its 34th session (Brasilia, Brazil, 25 July – 03 August 2010), examined the extension of ***Røros Mining Town and the Circumference*** nomination and decided to **approve** the extension of this property. Please find below the Decision **34 COM 8B.34** adopted by the Committee.

I am confident that your Government will continue to take the necessary measures for the proper conservation of this property. The World Heritage Committee and its Secretariat, the World Heritage Centre, will do everything possible to collaborate with you in these efforts.

The *Operational Guidelines for the Implementation of the World Heritage Convention (paragraph 168)*, requests the Secretariat to send to each State Party with a newly inscribed property a map of the area(s) inscribed. Please examine the attached map, as well as the notification of the characteristics of the property, and inform us of any discrepancies in the information by and not later than **15 December 2010.**

The inscription of the property on the World Heritage List is an excellent opportunity to draw the attention of visitors to, and remind local residents of, the *World Heritage Convention* and the outstanding universal value of the property.

To this effect, you may wish to place a plaque displaying the World Heritage and the UNESCO emblems at the property. You will find suggestions on this subject in the *Operational Guidelines for the Implementation of the World Heritage Convention.*

I would be grateful if you could provide us with the name, address, telephone, fax numbers and e-mail address of the person or institution responsible for the management of the property so that we may send them World Heritage publications.

7, place de Fontenoy
75352 Paris 07 SP, France
Tél. : +33 (0)1 45 68 10 00
Fax : +33 (0)1 45 67 16 90

www.unesco.org

Please find attached the brief description of the property, prepared by ICOMOS and the World Heritage Centre, in both English and French. As these brief descriptions will be used in later publications, as well as on the World Heritage web site, we would like to have your full concurrence with their wording. Please examine these descriptions and inform us, by and not later than **15 December 2010**, whether there are any changes that should be made. If we do not hear from you by this date, we will assume that you are in agreement with the text as prepared.

Furthermore, as you may know, the World Heritage Centre maintains a web site at http://whc.unesco.org/, where standard information about each property on the World Heritage List can be found. Since we can only provide a limited amount of information about each property, we try to link our pages to those maintained by your World Heritage property or office, so as to provide the public with the most reliable and up-to-date information. If there is a web site for the newly inscribed property, please send us its web address.

The full list of the Decisions adopted by the World Heritage Committee at its 34th session is available on line at http://whc.unesco.org/en/sessions/34COM/

Please accept, dear Ambassador, the assurances of my highest consideration.

Francesco Bandarin
Director a.i.
World Heritage Centre

cc: Norwegian National Commission for UNESCO
ICOMOS International
National Focal Point

BRIEF DESCRIPTION

Røros Mining Town and the Circumference is linked to the copper mines, established in the 17th century and exploited for 333 years until 1977. The site comprises the Town and its industrial-rural cultural landscapes; Femundshytta, a smelter with its associated area; and the Winter Transport Route. Completely rebuilt after its destruction by Swedish troops in 1679, Røros contains about 2000 wooden one- and two-storey houses and a smelting house. Many of these buildings have preserved their blackened wooden façades, giving the town a medieval appearance. Surrounded by a buffer zone, coincident with the area of privileges (the Circumference) granted to the mining enterprise by the Danish-Norwegian Crown (1646), the property illustrates the establishment and flourishing of a lasting culture based on copper mining in a remote region with a harsh climate.

BREVE DESCRIPTION

L'histoire de la ville de Røros est liée à l'exploitation des mines de cuivre découvertes au XVIIe siècle et exploitées pendant 333 ans, jusqu'en 1977. Le site comprend la ville et ses paysages culturels industrialo-ruraux, Femundsytta, une fonderie avec sa zone associée et la route de transport d'hiver. Entièrement reconstruite après sa destruction par les troupes suédoises en 1679, elle possède environ 2000 maisons en bois à un ou deux étages et une fonderie. Nombre d'entre elles ont conservé leurs façades en bois noirci qui donnent à la ville un aspect médiéval. Entouré d'une zone tampon coïncidant avec la zone de privilèges (la Circonférence) accordés à l'entreprise minière par la couronne dano-norvégienne (1646), le bien illustre l'établissement d'une culture fondée sur l'extraction minière du cuivre dans une région isolée.

Extract of the Decisions adopted by the 34th session of the World Heritage Committee (Brasilia, 2010)

Decision: 34 COM 8B.34

The World Heritage Committee,

1. Having examined Documents WHC-10/34.COM/8B and WHC-10/34.COM/INF.8B1,

2. Approves the extension of **Røros Mining Town** to include the **Circumference** and to become **Røros Mining Town and the Circumference, Norway**, on the basis of criteria **(iii)**, **(iv)**, and **(v)**;

3. Adopts the following Statement of Outstanding Universal Value:

   Brief synthesis
   Røros Mining Town and the Circumference consist of three sites within the Circumference, i.e. the area of privileges awarded by the Danish-Norwegian King to Røros Copper Works in 1646.

   The town and the cultural landscapes cover a large continuous area which includes the landscape surrounding the mining town, the urban agricultural areas, and the most important mining landscapes where agricultural practices and copper work operations were carried out.

   Femundshytta is a largely relict landscape which includes the industrial cultural landscape with the remains of a smelter, water management systems, and the community that grew up around them. The Winter Transport Route is made up of a sequence of lakes, rivers, and creeks in an almost untouched landscape. It was used from November to May.

   Røros Mining Town, established in 1646, is unique. It is built entirely of wood, and interlinked with a cultural landscape that shows in an outstanding and almost complete manner how mining operations, transportation, and the way of life had to be adapted to the requirements of the natural environment – the mountain plains, the cold climate, the remote location without roads

and with marginal growth conditions for forests and agriculture. On this basis a unique culture developed that has partly disappeared, but an outstanding testimony of the existence of which has been preserved.

Criterion (iii): From the time copper ore was found in the mountains at Røros in 1644 until the copper works went bankrupt in 1977, with German mining technology as a starting point, employing German, Danish, Swedish immigrants, and Norwegian nationals,, a unique culture developed to extract the valuable copper in a remote and sparsely inhabited area. Today there is no mining in the area, but Røros Mining Town and the traces of mining, smelters, transport, and water management systems bear unique witness to the adaptation of technology to the requirements of the natural environment and the remoteness of the situation.

Criterion (iv): Røros townscape and its related industrial and rural landscapes, with their interlinked industrial activity and domestic and agricultural accommodation within an urban environment, illustrate in an outstanding manner how people adapted to the extreme circumstances in which they had to live and how they used the available indigenous resources to provide shelter, produce food for their sustenance, and contribute to the national wealth of the country. Technologically, their buildings and installations evolved through the use of available indigenous materials to functionally satisfy the combined approach of mining and agrarian practices whilst at the same time accommodating the consequences of dealing with extreme climatic conditions.

Criterion (v): Røros Mining Town and the Circumference constitute a totality that is an outstanding example of traditional settlement and land-use. The various activities that have been carried out in the area constitute a coherent and interdependent unit. These activities have shaped a cultural landscape that provides a unique picture of how the mines and the mining town functioned as a complex and at times vulnerable system that verged on the limits of what was possible in an inhospitable environment with a harsh climate.

Integrity and authenticity
The nominated property contains all elements that convey the Outstanding Universal Value of the property and its most relevant features present a high or good level of integrity. The mining landscape is relict in nature, but almost no transformations or encroachment occurred after the closure of the copper works.

The authenticity of the property is expressed in almost all its aspects and features. All the remains bear credible witness to the history and development of the site. This is also reinforced by the rich archive documenting the copper company's history.

Protection and management requirements
The most important legislative instruments that help to protect and manage Røros Mining Town and the Circumference are the Cultural Heritage Act (1978) and the Planning and Building Act (1985).

The management framework for Røros Mining Town and the Circumference is embodied in a Statement of Intent which has been signed by all responsible bodies for the nominated property.

The basis for management relies on the existing Norwegian legal framework, the planning instruments in force, the administrative and private bodies responsible for the property and sources of funding for heritage conservation, agricultural activities in heritage areas, productive and marketing activities based on cultural and natural heritage, and sustainable tourism. The management framework contains an action programme including short- and long-term actions.

4. Recommends that the State Party:

a) Provide the World Heritage Centre with updated information about any progress made in the process under way for strengthening the legal protection of Femundshytta;

b) Respect the proposed timetable for the development of the regional plan for Hedmark and Sør-Trøndelag counties and for the management plan for the proposed extension and its buffer zone, and provide the World Heritage Centre with updated information on any progress made in this direction;

c) Continue to implement the measures undertaken to maintain and preserve the industrial and the historic agricultural landscape, especially those areas that are closest to the town and therefore more subject to development pressure, and to guarantee control over building permits in order to retain the character and the historic features reflecting the role of farming activity in sustaining the way of life of mine workers;

d) Monitor the development of the tourism industry within the boundaries of the nominated property;

e) Extend the assessment of the natural disaster threats to the entire proposed extension;

f) Collect and provide further information on the nature and consequences of pollution in the mining sites and on future measures that may be undertaken to reduce pollution;

g) Ensure the protection of a wider area surrounding the Winter Transport Route for purpose of research and possible future extension of the Route path;

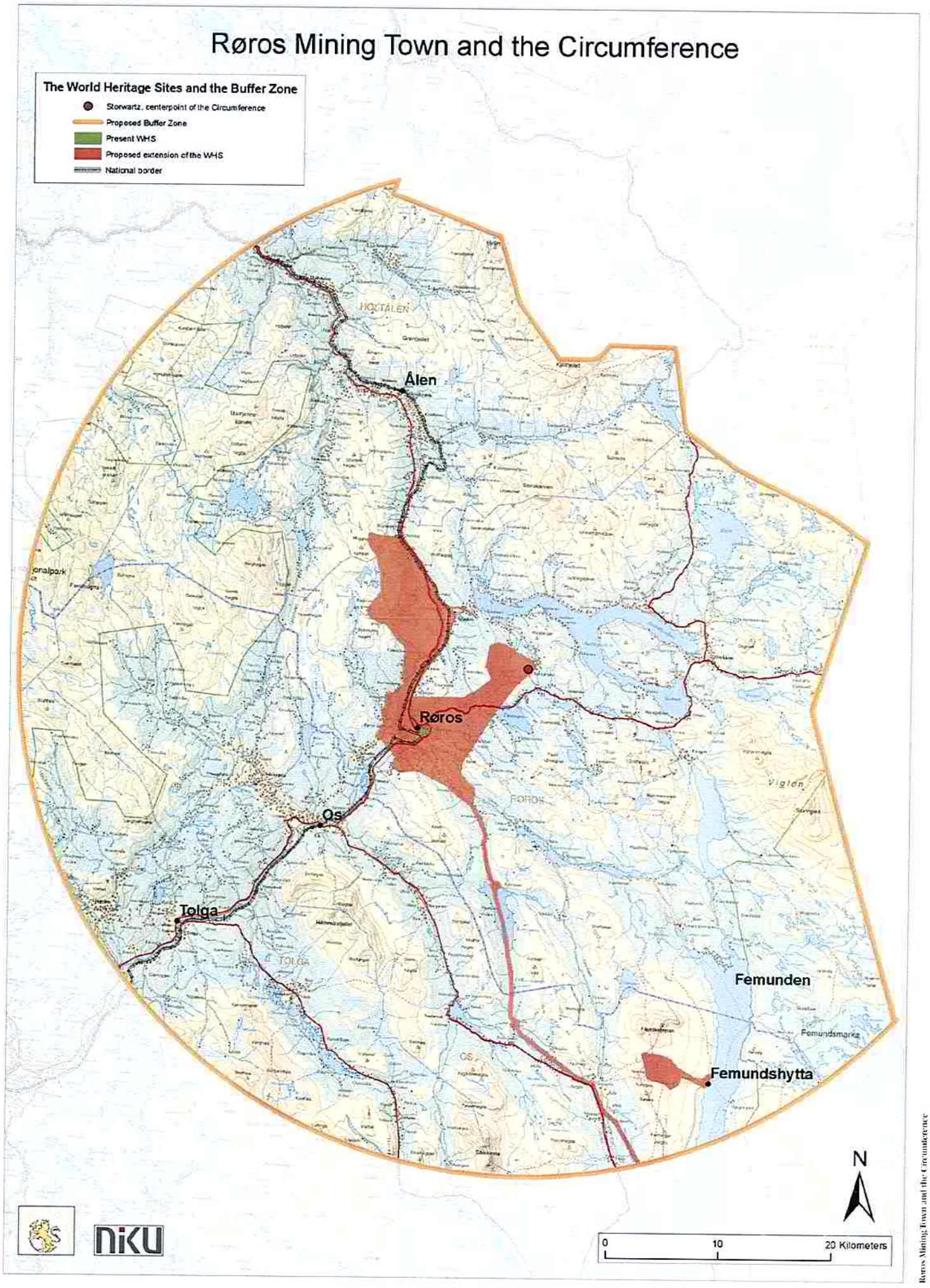
h) Develop measures to ensure prevention and prompt reaction in case of fire in uninhabited areas;

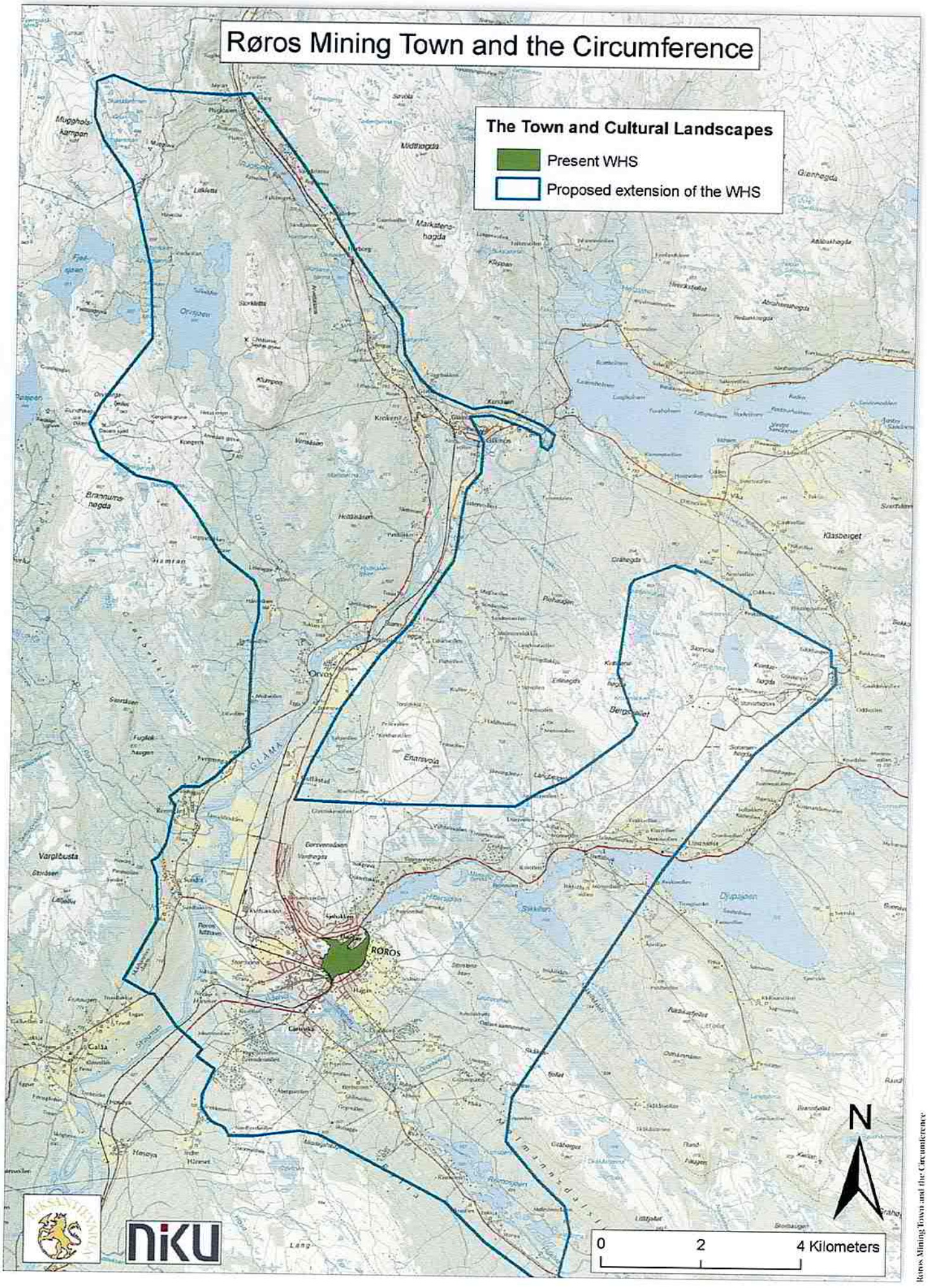
i) Keep the World Heritage Committee informed about the enlargement of the airport, should these plans be put into effect, in accordance with Paragraph 172 of the *Operational Guidelines.*

Surface and coordinates of the property inscribed on the World Heritage List by the 34th session of the World Heritage Committee (Brasilia, 2010) in accordance with the *Operational Guidelines.*

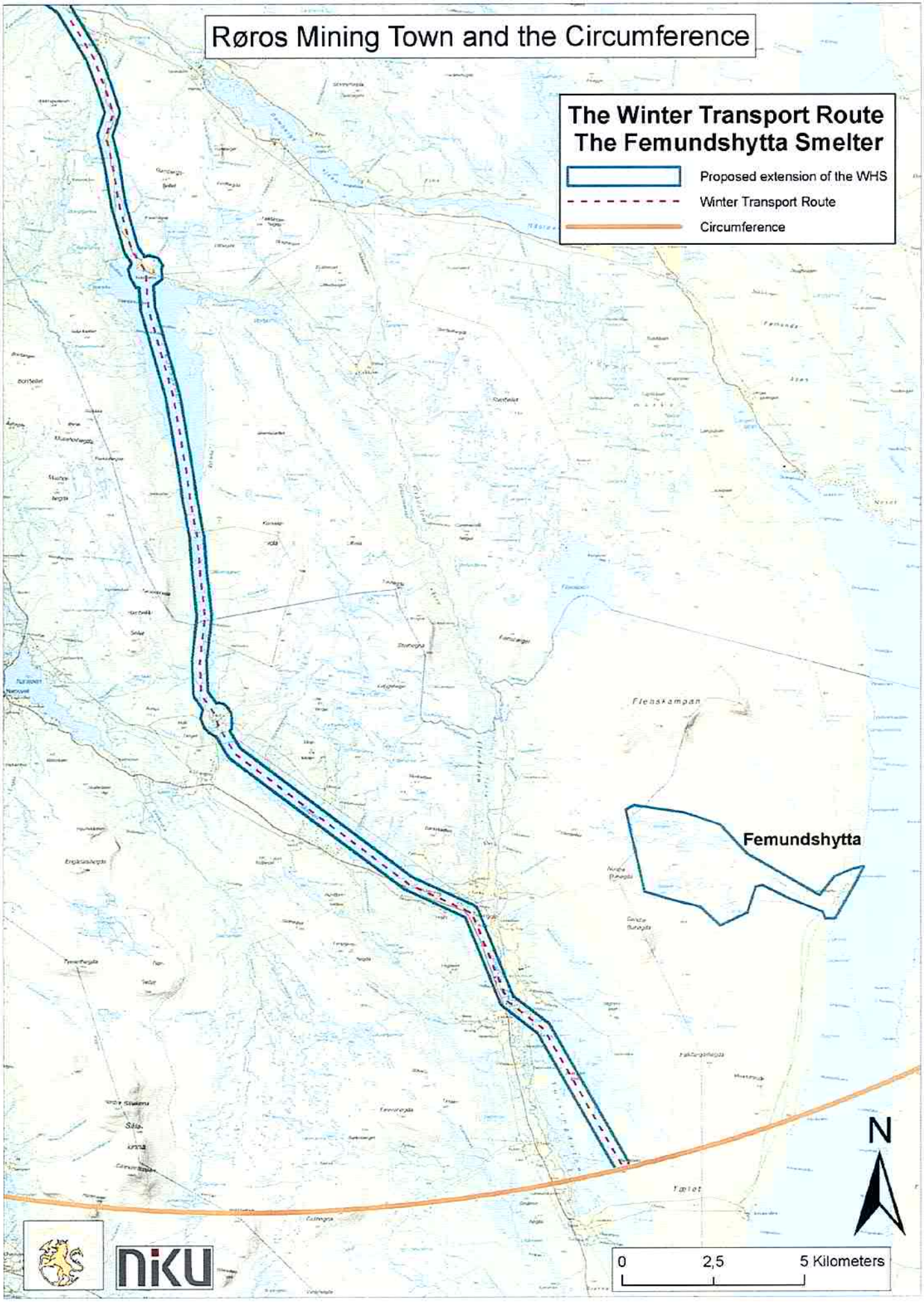
	Norway			
C 55bis	Røros Mining Town and the Circumference			
Serial ID No.	**Name**	**Property**	**Buffer zone**	**Centre point coordinates**
55-001	**Røros Mining Town - inscribed in 1980**	**51.4 ha**		**N62 34 46 E11 23 40**
55bis-001	Town and Cultural Landscapes including the present World Heritage Site + Winter Transport Route	15508.6 ha	481240 ha	N62 34 26 E11 23 08
55bis-002	Femundshytta	950 ha		N62 19 19 E11 50 02
	TOTAL	**16510 ha**	**481240 ha**	

Røros Mining Town and the Circumference





Røros Mining Town and the Circumference


Røros Mining Town and the Circumference
The Winter Transport Route
The Femundshytta Smelter
Proposed extension of the WHS
Winter Transport Route
Circumference
Femundshytta
N
0
2,5
5 Kilometers
NIKU