2. TELEMARK COUNTY: A BRIEF PRESENTATION OF GEOGRAPHY AND IRON AGE SETTLEMENTS

2.1 THE GEOGRAPHY OF TELEMARK

More than 200 Viking Age swords have been found in Telemark, the majority having been produced within the county. Before delving deeper into the swords and their production, it is necessary to provide an outline of Telemark, its geography and Viking Age society.

Merely two percent of the area consists of cultivated land today, and by contrast close to 60 percent is above the tree line. The two municipalities with the most extensive mountain areas are Vinje (c. 2,600 km^2) and Tinn (c. 1,530 km^2, Figure 2.1a–b).

In a brief description of Telemark, it is natural to use the main watercourses as guide-lines. From northern Telemark there are two main branches of rivers and lakes, both of which converge in Lake Norsjø, the southernmost of the great lakes. The short river Elstrøm/Skienselva connects Lake Norsjø to the sea.

The series of great lakes stretching into the interior are low-lying: Lake Bandak lies only 72 m and Lake Tinnsjø 191 m a.s.l., thus forming important communication routes, particularly suitable for boat transport in the summer and transport with sledges in winter (Resi 1987:98–99, Figure 5).

The eastern branch

The eastern branch flows into the northeastern end of Lake Norsjø, with its headwaters on the southeastern part of Hardangervidda, where several lakes at around 1,100 m a.s.l. form a central part of large hunting grounds for reindeer.

The largest tributary flowing into Lake Tinnsjø is Måna, whose outlet is approximately 5 km further south. Its headwaters lie in the southwestern part of Hardangervidda. The main river, called Kvenna, flows into Lake Møsvatn, and the Måna river runs eastwards from there through the narrow valley of Vestfjorddalen, forming the famous waterfall Rjukanfossen on its way through.

The valley south of Lake Tinnsjø is mostly sparsely populated forest land, and Heddal/Hjartdal, the valley by the other river flowing into Lake Heddalsvann, was more important for settlement, and formed an important overland route as well.

The western branch

Lake Bandak and the lakes to the east, Lake Kviteseidvann and Lake Flåvann, form the western branch. The lakes are long and narrow and separated only by short streams. The river from Lake Flåvann down to Lake Norsjø has several rapids; six sluices in different places were necessary here when the Telemark Canal was built around 1890 (Figure 2.2).

The western branch consists of a complicated set of tributaries with headwaters from Hardangervidda in the northwest, to the borders of Setesdal in the south. Parallel to the situation on the northern end of Lake Tinnsjø, several rivers have their outlets in or near the western end of Lake Bandak.

Other tributaries

Between the two main branches, there is a smaller river flowing into the northern end of Lake Norsjø: this river between the eastern end of Lake Seljordsvatn and Lake Norsjø leads through Bø and Sauherad.

The Nidelv watercourse

The great lakes in the southwest, Lake Vråvatn-Nisser and Lake Fyresvann, belong to another river system, Nidelv, flowing into Skagerak west of Arendal. Especially from Lake Fyresvann, several side valleys lead into a vast forest and mountain area with many deserted farms from the medieval period (Martens 1989), but so far none of these have finds attesting to settlement in the Viking Age.

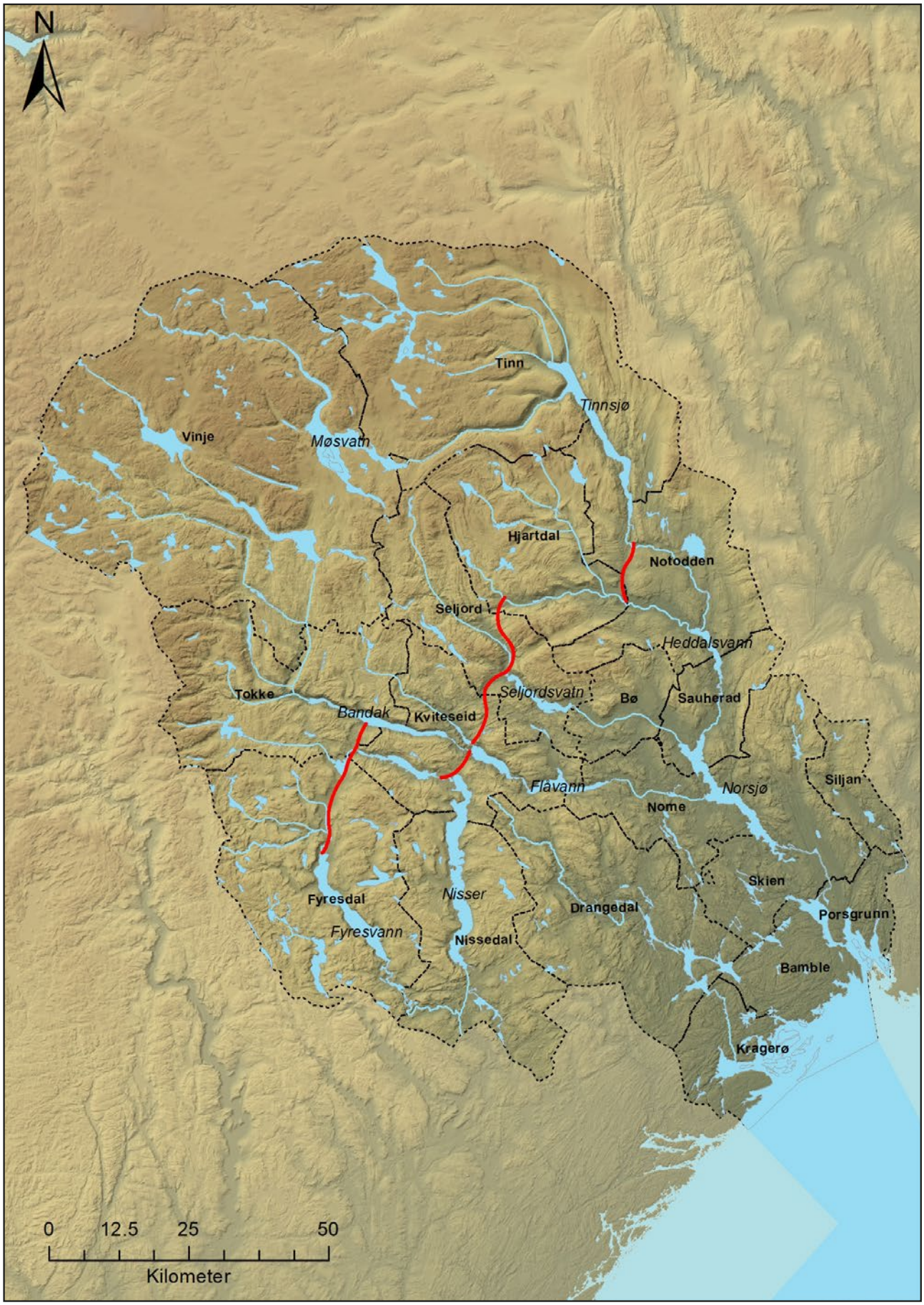

Figure 2.1a. *Topographic map of Telemark with some communication lines marked. Map: M. Samdal, KHM (CC BY-SA 4.0).*

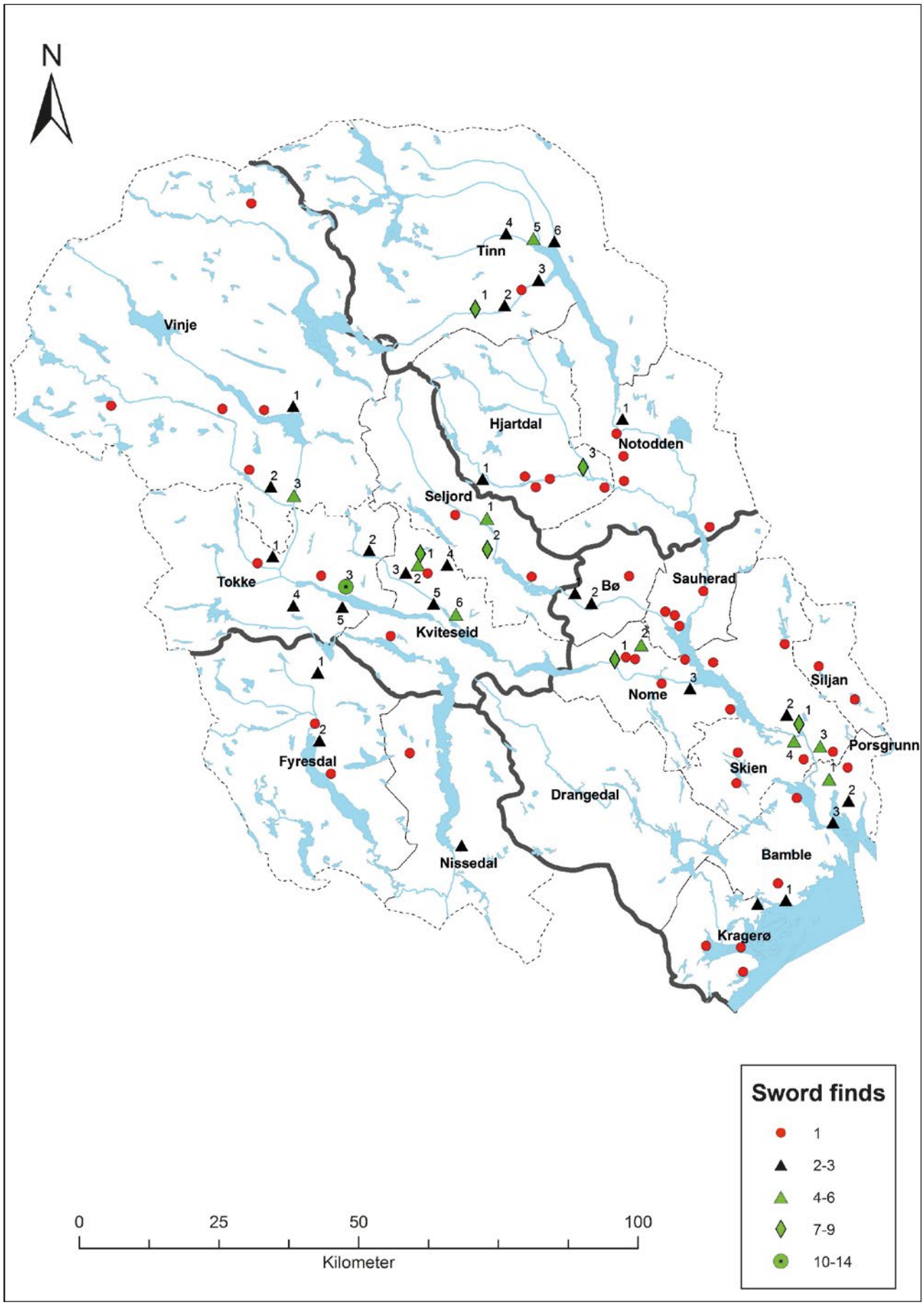

Figure 2.1b. *Map of Telemark showing distribution of sword finds. For details see find list in appendix. Map: M. Samdal, KHM (CC BY-SA 4.0).*

Figure 2.2. *The valley between Lake Flåvatn og Lake Norsjø. 1950–1970. Photo: Normanns kunstforlag (CC0 1.0).*

Figure 2.3. *Gjerpen, Skien, east of Skiensfjord. 1831. Photo: Mittet & Co (CC0 1.0).*

Important features

The lower parts of Telemark stand out as having both arable land and the most favourable climate of the region. Gjerpen includes the largest productive area, but the western side of the watercourse, especially up to the northern end of Lake Norsjø and including Bø have considerable areas of good farmland (Figure 2.3). Farther north, both sides of Lake Heddalsvann and Heddal Valley have nearly continuous settlement (See also Kaland 1972:141–159).

The great lakes and watercourses above Lake Norsjø are central to settlement, and a large part of the arable land is found near lakes and rivers. The steep hills and mountains surrounding the lakes often plunge directly into the water, making the shores uninhabitable. Thus only limited areas, often by the outlets of small rivers, favour more extensive settlement, and churches are often situated in such places. Examples of this are Lårdal by Lake Bandak and Kyrkjebygda by Lake Nisser (Figure 2.4).

Far more important are the inner ends of the great lakes, as they have the largest areas of arable land. In several cases two or more rivers have their outlets there, their valleys leading to other communities farther up in the mountains, in areas rich in resources. Together, these features make the inner ends very conducive to settlement (Figure 2.5).

In several places, the overland crossings between the great lake systems are short and easy to traverse. Sword C.5544 from Hafsten in Notodden indicates a transition road between the southern end of Lake Tinnsjø and the Hjartdøla watercourse. Some are marked on the relief map, but there were of course more such crossings.

In some places, there were severe obstacles on the overland roads, for example in Vestfjorddalen in Tinn. The road through the valley past Rjukanfossen was considered dangerous in later times. Such passages did not stop communication. One often had to use steep paths up into the mountains to where the terrain was more favourable for transport and then go down again farther on.

There were several crossings westwards to Setesdal, and the northernmost farms in Setesdal now belong to Vinje. Traffic between Telemark and Hardanger across Hardangervidda followed several paths, which are well known from more recent times (Roland 2001; Loftsgarden 2019).

2.2 SETTLEMENT AND ORGANISATION

The outline of the geography of Telemark forms the background for a brief presentation of the county's Iron Age. The Early Iron Age in Telemark was the subject of Jens Storm Munch's Master's thesis, published in 1965 (Munch 1965). Many new finds have been added to KHM's collections since then, as well as several archaeological excavations.[3] Since the early Mesolithic, hunters have taken advantage of the mountain areas, while the valleys probably had a local population subsisting in part on agriculture from the Late Neolithic (Mikkelsen 1989:321–22). Most probably these inland areas were inhabited continuously from the Late Neolithic, but the extent and economy of the settlements are uncertain.

The inland population maintained knowledge of various resources in forests, mountains and lakes, including elk, reindeer, fur-bearing animals and fish, while the extensive grazing lands were important for a farming economy. How, and to what extent, they utilised these various resources depended both on their technology and socio-political organisation, which governed both exploitation and commodity exchange. Iron extraction from bog ore is a good example of an activity dependent on both factors. Although iron was produced since the Early Iron Age in Telemark, it became extensive by the late Viking Age. Iron production became a more regionally specialised craft, with massive amounts of iron produced in hundreds of sites, mostly located in the northern part of Telemark (Martens 1988; Loftsgarden 2019b, 2020).

Several investigations have revealed that specialised handicrafts in Scandinavia were produced on central farms belonging to the elite and in marketplaces (Ljungkvist 2006:94 with references; Skre 2007:Chapter 20). Even though central farms in Telemark were mostly of a more moderate size than those mentioned by Ljungkvist, an important premise for our investigation maintains that specialised weapon production was carried out on such farms.

In relation to the socio-political organisation of Telemark, we have used Bjørn Myhre's paper, "Chieftains' Graves and Chiefdom Territories in South Norway in the Migration Period", as a starting point (Myhre 1987). The geography of Telemark, with its distribution of arable land and communication routes, is considered crucial at all times, and his results are relevant to our work.

3 Excavation reports at least from 2005 are available here: https://www.duo.uio.no/

Figure 2.4. *The central part of Lårdal towards Lake Bandak, 1880–1890. Photo: A. Lindahl (CC0 1.0).*

Figure 2.5. *The northern end of Lake Tinnsjø, 1947–1948. The farm Mårem at the mouth of the valley to the right. Photo: Mittet & Co – Lie-Svendsen (CC0 1.0).*

Myhre used richly furnished graves, defined as those containing at least two out of three of the following groups of objects: imported glass (except beads), bronze vessels and gold objects (1987:170). The distribution of such objects may indicate areas of wealthy settlements found close to the centres of social and political leaders (1987:171). He also studied fortified areas indicated by the distribution of hillforts, depending here on Munch's study of the numerous hillforts in Telemark (Munch 1965:113–138).

Through these methods, Myhre found two centres in Telemark: one in present-day Skien municipality, consisting of former Solum and Gjerpen; and a second centre by the northern end of Lake Norsjø, in the municipalities Sauherad and Bø, possibly also including two finds from Lunde, by the river between Lake Flåvatn and Lake Norsjø.

These centres lie in the southern part of Telemark, now called Grenland, which is very likely an old name (Munch 1965:14–17). Studies of written sources have confirmed that Grenland originally comprised only the inland region, i.e. the communities Nome, Sauherad, Bø and Heddal in Notodden, while Gjerpen and Eidanger (Porsgrunn) on the eastern side of the Skiensfjord, whose old name was Grenmar, belonged to Vestfold. Solum, Bamble and Kragerø constituted the old region Vestmar (Vale 2012:Chapter V). We find it convenient to use the name Grenland for all three old regions.

There are some interesting finds outside Grenland: a rich grave find from Nordgarden in Seljord (Munch 1965:Figures 11–18; Straume 1987:No 30), and three Westland cauldrons on the communication line from the western end of Lake Bandak past Lake Børtevann to the western end of Lake Vinjevann.

Hillforts

There are numerous hillforts in Telemark, and all are situated within Grenland. The dating is largely uncertain, as only a few have been excavated and dated. The Late Roman and Migration periods are considered most important in relation to their building and use. Munch presents 27 hillforts in Telemark, most of them in the central area within Grenland and enclosing the two centres Myhre found, and the settlement areas between. Since Munch published his list, at least eleven more hillforts have been found, mostly with the same distribution, but with three farther southwest in Bamble.

There are 21 known forts in Skien (Midtlid 2004:84; Finmark 2009:42). Åke Midtlid emphasises that many are situated where one could either control traffic on the waterways or the roads leading into the central habitation areas, and he claims that they belong to a comprehensive plan made by a hierarchical society (2004:96).

Burial mounds

Another group of monuments must also be considered. Large burial mounds were the resting places of high status persons. When not excavated the mounds are as difficult to date as the hillforts, but generally many, perhaps the majority, belong to the Late Roman and Migration periods (Ringstad 1992:114ff).

As well as complications in dating, size designations are difficult. A diameter of 20 m is often used to designate a large mound, but such measures are often not very accurate. The very big ones, measuring 25 m or more in diameter are the really interesting ones in this context, and deserve special attention.

The largest group is found in Solum, Skien, where there are at least twelve mounds of approximately 35–45 m in diameter. They are not placed together in a burialground like at Borre (Myhre 2015), but instead lie scattered over a distance of about 2.5 km on the farms Bjørntvet (6), Kongerød (2) and Klyve (4), all on a ridge sloping gently down to the river in the east. From here one could control the overland route from the sea to the southern shore of Lake Norsjø. Their dating is uncertain.

A collection of twelve large mounds within a limited area indicates a centre of great importance. The high number makes it likely that they were built during an extensive timespan, probably from the late Roman Iron Age onwards, though one cannot exclude the possibility that the earliest date from the Bronze Age.

In the other centres marked on Myhre's map, Bø and Sauherad, there are several large mounds, up to 30 m in diameter. Similarly, they are not found in one burialground or on one farm, but rather in several burialgrounds in various parts of the municipalities.

The last area of interest is the central part of Seljord by the western end of Lake Seljordsvann. On Myhre's map it is marked as a place with one category of objects, in this case a glass from the Nordgarden find mentioned above, from the first part of the 5th century. This is unfortunately badly documented, but may be from a large mound (Munch 1965:Figures 17–18; Straume 1987:No.30, Tafel 52–53).

Outside Grenland, the central part of Seljord has a spectacular collection of large burial mounds on the farms Nordgarden, Utgarden and Nes. Three are about 25 m in diameter, one is 22 m and two approximately 20 m. The farm names Nordgarden and Utgarden show that they were secondary parts of an original, now abandoned farm named Selaker.

The documentation we have added strengthens Myhre's model, depicted in his Figure 13 (1987). In Telemark the most prominent centre was found in Skien where all branches of the Telemark watercourse flowing into Lake Norsjø meet the sea. The economic interests of the rulers extended far into the interior where the farm-based population utilised resources within a large area. This promoted economic growth in the inland valleys, resulting in burials containing dateable objects, in several cases imports like the three Westland cauldrons in Tokke and Vinje. The connections, including the utilisation of outland resources, were probably directed from the centres in some way.

Munch and Kaland stress the connections between the inner parts of Telemark and Western Norway for the Early Iron Age and the Viking Age respectively (Munch 1965:112; Kaland 1972:168–69). We do not in any way deny that such connections existed, but we see the connections along the watercourse to Skien as far more important (see below).

Merovingian and Viking Periods

The Merovingian period has in general few finds, and we have not traced any finds from this period in Solum, Skien. Notably, this area has few finds from the Viking Age as well. In our base material only six swords come from Solum, one of them from Bjørntvet, an M-type single-edged specimen.

Gjerpen, on the eastern side of the river, has a small number of Merovingian period finds and two early Carolingian type swords from the transition to the Viking Age (C.1878 and C.25396, Martens 2006a). From then on, Gjerpen stands out compared to the rest of Grenland, which in general has relatively few Viking Age finds.

Find distribution in the Viking Age

Both the distribution of swords in general, and the concentration of such objects are important in order to elucidate the economic networks and social hierarchy of Telemark in the Viking Age. The map (Figure 2.1b) shows the spatial distribution of Viking Age swords in Telemark. Most have come to light accidentally, many by destruction of a burial mound or even a group of mounds. In our analysis, concentrations of more than six swords are deemed significant (7–9 and 10–14).

All, except the one in Morgedal, are situated in areas which combine favourable farming conditions with strategic communication positions. It is the interior valleys that are rich in finds in our relevant period, and Kaland has demonstrated that the greater part of the finds come from places with the best conditions for agriculture, though even marginal areas have contributed (Kaland 1972:141ff). The swords are concentrated in an inland belt stretching from Fyresdal in the southwest to Tinn in the northeast (Figure 2.1b).

Tinn is an outstanding municipality for Viking Age weapons. The Rjukan concentration of seven swords has some items of special interest, and in addition to these the Mårem concentration of five swords elicits special attention. Mårem was obviously an important farm, situated close to Lake Tinnsjø between two rivers leading away from rich hunting grounds (Martens 2009). All in all, Tinn has yielded eleven swords with inlay decorations on the hilts (Martens 2009), and three spearheads with such decorations on the socket. These finds will be discussed in more detail in the concluding chapter.

Among the weapons from Seljord is the T-type sword from Utgarden (Petersen 1919:Figure 121). Most of the other ones are of ordinary Norwegian types.

A penannular brooch from Seljord is worth noting, considering the archaeological material strongly indicating that the cloak and penannular brooch were connected to a group of men holding central political positions (Glørstad 2010:280–86). The Seljord brooch has plain ball-shaped ends (group IIIB), dated to 850–900 AD (Glørstad 2010:331). This is one of eight penannular brooches from Telemark. Another such brooch, a thistle brooch (group IIIA) comes from the prominent farm Mårem in Tinn. The other six brooches were found on centrally situated farms in different parts of Telemark (Glørstad 2010:327–324).

In earlier works, we have interpreted the prosperity indicated by the great number of finds in the middle inland zone as a result of its central position in the trade between coastal and mountain regions (Martens 1987:76ff, 1988:148–49). The farmers there were the primary receivers of iron and other goods from forests and mountains, delivering grain, house timber and other necessities in return (necessities here taken in a wide, cultural sense). They may even have played a role in the organisation of iron extraction. The graves are above all rich in weapons and tools, testifying to an abundance of iron, although the most intensive iron production in Telemark started in the late Viking Age and continued in the early and high Middle Ages (Larsen 2009; Loftsgarden 2017).

In contrast to the early Iron Age, there is an abundance of finds in the valley zone in the Viking Age, but fewer finds in the lowland and coastal areas. Even if such a shift in find distribution is not representative for other parts of Southern Norway, the problem of change in political organisation is a general

and complex one. Myhre has suggested that a few strong, petty kingdoms were established, and from their political centres widespread economic systems were created (Myhre 1998:26).

The many large grave mounds in Solum indicate continuity into the Viking Age, while the finds signal a shift in importance towards Gjerpen. A possible explanation for this is that Solum and Gjerpen were parts of different political units (see above).

The Skien area most probably remained central during the Viking Age. Hones from the quarries in Eidsborg, a short distance from Lake Bandak (see map 2.1b), were shipped out through Skien (Nymoen 2011). These hones were widely distributed in Northern Europe, among other places in Haithabu. Of the hones from Haithabu, 22.5% most probably come from Eidsborg, dating to the entire occupation period, 8th–11th centuries (Mitchell et al. 1984; Resi 1990:15, 53). During the 10th century the medieval town of Skien was established (Myrvoll 1984). Controlling the trade of inland resources such as iron and whetstones was most likely fundamental to establishing the town.

Tinn, Seljord and Kviteseid are the most likely candidates for smaller centres where specialised weaponsmiths could have had their workshops. Sauland and Ytre Flåbygd are also worthy of consideration. By the Nidelv watercourse, ending near the possible trading settlement at Vik, Grimstad (Larsen 1986), Fyresdal has yielded several interesting finds.