CHAPTER 7

ABSTRACT.
‘FROM BOW AND ARROW TO POWDER AND SHOT’

The Gråfjell Project’s excavations in the Gråfjell area (2003–2005) and by the Rena River (2006–2007) have been extensive. A large archaeological material from the Middle Mesolithic up to and including the early post-Reformation period (ca. 8000 BC–AD 1650) has been documented and collected. The investigations have provided new knowledge about settlement history and resource exploitation in this low-lying mountainous and wooded area.

The excavation results have shown that the area came into use not long after the highest-lying areas became ice-free around 9000–8000 BC. At the site Knubba north in the Gråfjell area, a cooking pit is dated to 8150–7445 BC, and it is thus the oldest dated find of human activity this far in Østerdalen. Humans have visited and stayed in the area throughout the entire Stone Age. The economy was based on hunting and fishing.

During the late Neolithic / Bronze Age–early Iron Age, an increased exploitation of local quartzite for tools at the sites by the Rena River has been documented. This may indicate an increased sense of belonging to the landscape and suggests that the people who stayed in the area were less mobile than people who stayed there in earlier periods. Apart from these sites, few archaeological traces from the early Iron Age have been surveyed and excavated, but the pollen-analytical investigations show that livestock grazing and cereal cultivation have taken place to some extent. It has previously been assumed that an agriculturally based economy and the colonisation (*landnåm*) of Åmot happened later, not until the transition to the late Iron Age. After the excavations at Rødsmoen (1993–1996), it has been claimed that the hunter-gatherer population was displaced from the area when the farmers established themselves in the district. Even though the material from the early Iron Age is still relatively modest after the excavations of the Gråfjell Project, the results show that humans with an agrarian cultural belonging started establishing themselves in the wooded areas during the transition to the Roman Iron Age. The traces in the form of grazing indicators, cultivated terraces, cooking pits and iron production sites (phase I-technology) have been interpreted as being connected to agrarian pioneers. This indicates that the wooded areas were utilised for livestock grazing and grain cultivation before the known permanent agrarian settlements by the rivers Rena and Glomma were established. The earliest farming has been of an extensive character and has spread over large areas, so that the ‘new’ resource utilisation in the wooded areas did not necessarily come into conflict with the hunter-gatherer population’s existence in the same landscapes. The first cultural encounters between the different groups of humans were not necessarily conflict-filled.

At the transition to the late Iron Age, a marked change took place in the Gråfjell area, as it went through an intensification of settlement and resource exploitation. Several pitfall-trap systems for moose were built, the livestock grazing was intensified, and grains were cultivated by the lake Deisjøen. The utilisation is seen in the context of the growing farm settlements in the district. The wooded areas became part of an agrarian system where the infield and the outfield were integrated because there was a growing need for new grazing areas and areas for grain cultivation. The pitfall-trap systems indicate that the farm economy was grounded on other types of resource exploitation than merely agriculture. The construction of pitfall-trap systems may have been important to the farmers for claiming usage of land around the systems, to livestock grazing, collection of fodder etc., and may as such be seen as a ‘colonisation’ of the Gråfjell area. The increased pressure on the wooded land may have stirred up conflicts over rights of land use. It is therefore possible that the hunter-gatherer population has been displaced from the area in this period, as has been previously claimed.

In the period ca. AD 1000–1300, a large-scale iron production (phase II-technology) took place. Concurrent with the start of the iron production, the pitfall trapping ceased. Pitfall traps were reused for coal production linked to iron-production sites nearby. At the same time, the agrarian activity (mainly livestock grazing) in the Rødseter area also

decreased, and it seems as though this area was more or less deserted until the beginning of the 13th century. It is strange that livestock grazing in the outfield did not increase in line with the growing farm settlements in the district. This may suggest that parts of the local population had no longer access to or were unable to gain access through common usage to the Gråfjell area, for moose trapping and pasture, when the iron production started and was in progress.

The iron production gradually increased from AD 950/1000, and in the middle of the 11th century, the production was taking place throughout the area. Between the middle of the 12th century and the end of the 13th century, the production was at its most intense, with a range of sites operating simultaneously. Around AD 1300, or some decades earlier, the production ceased abruptly. The iron production was organised, as regards both the technological aspect and the use of the landscape. The scale of the production was large, much larger than the local demands, so the iron must therefore have been intended for and distributed to external markets. The organisation and extent were of such a kind that the production must have been integrated into well-organized systems and networks and that a group or a single person was behind the organisation. Few other activities took place in the Gråfjell area in the same period as the iron production. This suggests that there has been a shift in the local economy because iron production before the Middle Ages was of very modest size. The change may have been a local choice, or it may have happened as a request or by a form of coercion. Based on this, a hypothesis that the king was the main operator behind the iron production in the Gråfjell area has been put forward. The relatively late colonisation of the wooded areas may have made it possible for the king at the end of the Viking Age to regulate the use of the wooded area for iron production in co-operation with the local population. The steep decline of the production is seen in the context of internal conflicts in the Norwegian society and a failed trade and foreign policy that led to a weakening of the king's power. At the end of the 13th century, the king no longer had the resources to control the iron production.

After the iron production ended, the pitfall-trap systems were reused and expanded, a farm in the Rødseter area was built, and several shielings were established. This is interpreted as the local population once again regaining access and rights of land use in the Gråfjell area. The volume of the pitfall trapping in the late Middle Ages and early post-Reformation period must have resulted in higher yields than what the individual farms needed. Some of the hides, possibly also the antlers, were transported to other regions in Norway, and they may have been exported to the Continent. This suggests that there was still a market for non-agrarian products after the iron production ended. The hides were also important as a means of payment, among other things for the tithe and taxes to the king.

The excavations in the Rødseter area show that the trapping must have been important for the economy in the district. Here, a farm was established in the 14th century. The economy of the farm was based on agriculture, both livestock and grain cultivation, and moose trapping. The grain cultivation and the pasture expanded in the 15th century along with the settlement. This was when the trapping of moose was at its peak. The pitfall trapping in the Gråfjell area ceased in the 17th century, and simultaneously the grain cultivation ended in the Rødseter area. When the large-scale trapping could no longer be maintained around AD 1650, the farm went out of use. This suggests that the moose products were probably a prerequisite for providing goods they were not able to produce themselves.

The initial phase of the historical form of the summer-farming system probably took place in the 14th century, but it really started spreading during the 15th century, and more shielings may have been established simultaneously. The summer-farming system was probably of the *fullseter* type, i.e., a place used throughout the summer for milking of animals and treating and storing of milk and other dairy products, as well as harvesting or collecting of winter fodder, which was the usual form in Østerdalen in historical times. Here, there would have been plenty of timber for buildings and firewood for milk production.

The investigations in the Gråfjell area show that no direct signs can be traced of the late Middle Age crisis. This may indicate that the population decrease in the late Middle Ages was not that extensive in Åmot and that the re-clearing took place earlier and faster that what has previously been assumed. If this was the case, it may be that there was no need for a reorganisation of the farming, from an emphasis on cereal cultivation to animal husbandry, as happened in other parts of the country. Animal husbandry was probably of central importance from the time when an agriculturally based economy was introduced in Østerdalen. Most important was maybe the long tradition of exploiting the rich outfield resources. The ability to combine agriculture with other niches

such as hunting and trapping may have made the local community in Åmot capable of handling 'the crisis' better than communities in more central rural areas.

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The cultural monuments from the period after the 17th century in the Gråfjell area are relatively few, except for building remains. Boundary cairns and timber floating equipment linked to forestry and logging have been surveyed. The majority of the buildings are related to agriculture, like clearance cairns at shielings, but there are also building remains that have been forest log cabins (Risbøl 2005:22–23). These cultural monuments reflect the important outfield resources in the Åmot society up until today. After the Middle Ages, the summer-farm system expanded. As the population increased, more farms expanded and new ones cleared, there was a need to make use of larger areas around the farms, mainly as grazing land. In the land register (*matrikkelen*) from 1661, 25 shielings are mentioned in Åmot, and in 1723, 96 per cent of the farms had shielings (Sanderød 1996). The *fullseter system* required many buildings to make milk products and store the products, and a substantial amount of firewood was required in the milk production (cheese in particular). In many areas, the expansion of the shielings came into conflict with the exploitation of the woods for logging. Forestry had become a basic industry in Norway around AD 1600, when timber was exported to Western Europe. Logging for sales purposes started in the south of Norway and along the outer parts of the coast. As the profit increased, the activities spread towards Eastern Norway (Dyrvik 1979:41–42). It may seem as if the use of the wooded areas in Åmot started relatively late for productive logging (Lillevold 1973). In 1665, there were three sawmills (*flomsag*, sawmill in a watercourse/stream) in Åmot, while there were twenty-one in 1723. Later in the 18th century, the value of the forests in this area rose, and in the later part of the 18th century and in the 19th century, several watercourses were used for timber floating (Lillevold 1973:161, 171, 296). The fact that there had been competition between forestry and summer farming was not that striking in this part of Østerdalen, as livestock farming continued to be very important here (Mangset et al. 1996:10–15).

Åmot is still an important 'forest municipality', where two-thirds of the area is productive forest. With the Norwegian Armed Forces' establishment in the municipalities from the 1990s, large wooded areas are now used for new activities – military enterprises. The result is that wooded areas have once again been regulated and restrictions have been placed on the public's use of the area. Thus, parallels can be drawn back to the Early and High Middle Ages, when the Gråfjell area appears to have been regulated for iron production.