CHAPTER 12

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Spatial organization of farmsteads at Iron Age and early medieval Vik (c. 400 BC – AD 1250)

ABSTRACT

Studies of social organization based on the spatial organization of Iron Age buildings and farmsteads have become increasingly important in south Scandinavian archaeology during the past few decades. In this chapter, I compare the spatial organization of buildings and farmsteads at Iron Age and early medieval Vik, in order to explore long-term changes. In doing so, I aim to add to the existing central Norwegian material, and to expand our knowledge from this region further. The Vik settlements reflect an increasingly complex spatial organization throughout the pre-Roman and Roman Iron Age. A turning point took place c. 200 BC, when the earliest fixed settlement appeared, marking a closer relation between people and place, and a more diverse social organization in comparison with the previous wandering farmsteads. Another turning point took place around the time of the birth of Christ, when three fixed farmsteads were established, and were more or less simultaneously occupied over the next four centuries, until the Early Migration period. After decline and abandonment during the Late Migration, Merovingian and Early Viking periods, a new farmstead was established in Vik in the Late Viking Age and early medieval period. This farm formed part of a new spatial and social organization, where the Vik farm was probably subject to a farm of a higher social standing, perhaps Viklem, c. 1km south of Vik.

INTRODUCTION

The material from Vik, Ørland makes a significant contribution to the existing knowledge base, primarily of Early but also of Late Iron Age settlement development in central Norway. The main reason why the Vik material is of great importance is the large size of the excavated area. Six relatively well preserved farmsteads from the Early Iron Age and one farmstead from the Late Iron Age are represented. Therefore, spatial relations can be compared between these farmsteads, over a long period of time from the pre-Roman Iron Age to the early medieval period. A thorough understanding of the spatial organization of the living space is in turn of great importance to studies of social organization of Iron Age societies.

Studies of Scandinavian societies from the last few centuries focus on an increasingly differentiated society during the course of the Iron Age and Viking Age (Fabech 1999, Widgren 1998, Solberg 2000:94-103, Løken 2001:52-53, Myhre 2002). Top-soil stripping and Iron Age settlement archaeology was established earlier in southern Scandinavia than in Norway, and as a consequence, larger, synthesizing

works concerning the nature of spatial and social organization of Iron Age settlements mainly focus on south Scandinavia (Karlenby 2007, Webley 2008, Herschend 2009, Holst 2010). Norwegian studies concerning social organization traditionally employ a broad archaeological record, with grave material at the base. However, settlement remains have become increasingly important also in Norwegian archaeology, not least after the breakthrough of the machine-assisted top-soil stripping method in the 1990s. Two synthesizing studies based on material from southeastern Norway have also appeared recently (Eriksen 2015, Gjerpe 2017), and a much-awaited publication of the important Forsand site is forthcoming (Løken, in prep.). Central Norwegian material from the Early Iron Age has not yet been synthesized, but significant contributions based on developer-led excavations include Grønnesby 1999, 2000, 2005, 2013, 2016, Frey 2010, Grønnesby & Heen-Pettersen 2015, Rønne 2005, Henriksen 2007, and Henriksen & Bryn 2019. These contributions depart from large excavations with several Iron Age buildings and other features. The central Norwegian material from the Late Iron Age is less extensive, but significant contributions have also been made from this period during the past decades (Berglund 2003, Grønnesby 2013, 2015, Grønnesby & Heen Pettersen 2015, Sauvage & Mokkelbost 2016, Berglund & Solem 2017, Ellingsen & Sauvage Ch. 13).

In this chapter, the aim is to explore how the settlement development at Vik compares with the general central Norwegian, southeastern Norwegian and Scandinavian trends in spatial organization of the settlement. The material from Vik, Ørland allows for a time-depth analysis of the spatial organization of farmsteads at the site throughout the Iron Age. The preservation at Vik does not allow detailed analysis of each building. Instead, we compare relations between buildings, and relations between buildings and features such as cooking pits, waste deposits, sunken lanes and agricultural layers, in space and time. Following these comparisons, we touch upon some aspects of the changing social organization in Vik.

In this chapter, *farmstead* (equivalent to Norw. *tun*) denotes the built environment of a farm, including buildings, cooking pits, wells, ditches, waste deposits, and sunken lanes. However, activities and practices performed by the inhabitants of the Iron Age and medieval period farmsteads at Vik covered considerably larger areas than the excavated area. Agriculture most likely focused on the best-drained areas of the peninsula, which were found on the top of the main ridge, where the settlement was also located. Ritual practices connected to burials took place on the edges of the cultivated land to the east of the settled area, facing the now extinct bay and the harbor. Animal herding made use of a wider area, including the marshlands and beaches surrounding the settled area on the main ridge. People foraged for shellfish in the wide tidal zones to both sides of the dry land, and they took their boats and went fishing in the nearby seas. Communication on land found a main route along the dry main ridge. Communication at sea reached far to the north and south along the Norwegian coast as well as inland via the Trondheim fjord. Locally at Vik, sea communication focused on the harbor in the sheltered bay to the east of the settlement. Traces of many of the activities were found in the farmsteads, in the shape of macrofossils, traces of dung, animal bones, fish bones, shells, placed deposits, and artefacts. In this chapter, however, focus will be on the spatial organization of the built environment in the farmsteads during the different phases of inhabitation at Vik. The *Early Iron Age* here denotes pre-Roman Iron Age (c. 500 – 1 BC), Roman Iron Age (c. AD 1 – 400), and the Migration period (c. AD 400 – 575), while the *Late Roman Iron Age* points to the Merovingian period

(c. AD 575 – 800), and the Viking Age (c. AD 800 – 1030), following the established Norwegian period nomenclature (Solberg 2000).

CHANGING SPATIAL AND SOCIAL ORGANIZATIONS OF FARMSTEADS DURING THE EARLY AND LATE IRON AGE IN SCANDINAVIA

Early pre-Roman Iron Age farmsteads generally consisted of a single, three-aisled longhouse, sometimes accompanied by a four-post construction. Early pre-Roman Iron Age buildings were often divided in two parts. This division is often, but not always, interpreted as a reflection of a functional division of the building into one part for humans, and the other part for storage or a byre (Fransson Ch. 5 with references). These single longhouses tended to be built on pristine ground, thus moving around from place to place in the landscape, avoiding re-occupation of the same ground by new buildings (Herschend 2009:140, Gjerpe 2017:130). Mostly, early pre-Roman Iron Age buildings were occupied for only one generation (Gerritsen 1999:139, Holst 2010:159, Bukkemoen 2015:105). These farmsteads are described by several authors as *wandering* (Gerritsen 1999:139, Holst 2010:170), while Gjerpe labels them as *random* (my translation, Gjerpe 2017: 130). Wandering farmsteads can be understood as expressions for a relatively egalitarian society, where the right to cultivate land was not inherited within families, but distributed within social groups (Holst 2010:171, Gjerpe 2017:189-190). Herschend describes this settlement pattern as "balanced", in terms of a sense of balance between the settlement and the subsistence area, and a sense of balance between longhouses and families (Herschend 2009:171-193).

During the last part of the pre-Roman Iron Age and the Roman Iron Age, there was a growing tendency towards more stable farmsteads. Buildings often lasted longer than one generation, and farmstead sites were used for a larger number of buildings over a larger number of generations. From around 200 BC, the diversity of the layout and the size of the buildings also increased. Some longhouses were markedly longer than before, they were divided into several rooms, and longhouses had longer and more complex life-spans. The earliest evidence of enlarged central rooms occurred in the last part of the pre-Roman Iron Age (Grønnesby 1999, Løken 2001:56-58, Göthberg 2000, Karlenby 2007:129-130, Webley 2008:65, 152, Martens 2010:243, Bukkemoen 2015:108). In some areas of Northern Europe and in parts of southern Scandinavia, late pre-Roman Iron Age and Early Iron Age farmsteads were built closer to each other, in *nucleated* settlements (Gerritsen 1999, Holst 2010). Pre-Roman Iron Age farmsteads connecting into a possibly nucleated settlement have also been found in central Norway, at Kvennild, Trondheim (Grønnesby 2013).

From around the start of the Roman Iron Age, the diversity of the buildings again increased, as longhouses were often accompanied by shorter buildings of various sizes and methods of constructions. The tendency towards a re-occupation of settlement sites intensified, indicating a closer connection between people and place. Together, these developments signify a more hierarchical society. As a part of this development, researchers picture closer ties between principles of inheritance and rights to use of land (Herschend 2009:141, Bukkemoen 2015:113, Gjerpe 2017:191-194). Re-occupied farmsteads are described by Gjerpe as *fixed* (2017:130-131, my translation).

Fixed settlement lasted throughout the Migration period in southeastern Norway, although settlement intensity decreased, and some settlement sites went out of use, without new settlements being established (Gjerpe 2017:193). Around AD 600, a major break relating to building customs and the organization of

settlements took place in Norway (Myhre 2002:187-189, Grønnesby 2013, 2015, Eriksen 2015, Gjerpe 2017:194, Løken forthcoming). A general lack of finds of settlements from c. AD 600 onwards has led Gjerpe to launch the notion of the *unknown* settlement (Gjerpe 2017:32). The three-aisled longhouse was still dominating, but from c. AD 600, considerably fewer examples are known (Eriksen 2015:47). In Norway, traces of Late Iron Age farmsteads are repeatedly found underneath historically known farms, indicating that the farming landscape we know from historical times might have had its origin in the 7th century (Myhre 2002:188, Grønnesby 2013, 2015, Grønnesby & Heen-Pettersen 2015, Bjørdal 2016). In central Norway, studies of Late Iron Age farmsteads in Egge, Steinkjer, and Torgård and Ranheim, Trondheim, have shown that these farmsteads were also established in locations that were new, compared to where Early Iron Age farmsteads were located (Grønnesby 2013, 2015). Geir Grønnesby emphasizes that land ownership was central to the new spatial organization. The new farm structure seems to have been based on a division of the landscape into farm territories, which were owned and inherited within families. This formed a hierarchy based on the division between families who owned land and families who did not (Grønnesby 2015:126).

A development where the settlement pattern moved from *wandering* to *fixed* settlements during the pre-Roman and the Roman Iron Age is thus observed in central Norway as in Norway as a whole, and, indeed, throughout Scandinavia. In the Norwegian material, a re-organization of the settlement structure is observed around AD 600, where a new and stable settlement organization based on a division of land into farm territories emerged. This development is also observed in central Norway (Grønnesby 1999, 2005, 2013, 2015, Grønnesby & Heen-Pettersen 2015, Rønne 2005, Henriksen 2007, Henriksen & Bryn 2019). In what follows, the spatial organization of the settlement at Vik will be analysed in order to compare Vik with the general trends observed not only elsewhere in central Norway, but also in Norway as a whole and elsewhere in Scandinavia.

MATERIAL AND METHODS

The excavations at Ørland Main Air base uncovered c. 117 000 m^2 of mainly agricultural land by top-soil stripping (Engtrø & Haug 2015, Ystgaard et al. 2018). The size of the excavated area is so far the largest in the region, and also among the largest in Norwegian archaeology. The excavation area was located along the highest gravel ridge (c. 11 m above sea level) on the otherwise flat Ørland peninsula. Both earlier registered Iron Age graves and the surveys conducted as part of the planning process of the expansion of Ørland Main Air base indicated relatively dense Iron Age settlement concentrations in the area (Haugen, Sjøbakk & Stomsvik 2014, Engtrø & Haug 2015). The archaeological excavations conducted in 2014, 2015 and 2016 uncovered eight concentrations of Iron Age and early medieval period settlement traces (Engtrø & Haug 2015, Ystgaard et al. 2018). Seven of these concentrations marked a relatively well-preserved prehistoric farmstead, while the eighth and southernmost concentration possibly marked the peripheral part of another farmstead. This settlement concentration could not be fully excavated, because it extended out of the development area. The prehistoric and medieval settlement remains examined at Vik spanned a period of altogether c. 1750 years, from c. 500 BC – c. AD 1250 (Figures 1 and 2).

The site was heavily affected by modern day agricultural activities. Only the lower parts of the archaeological features were preserved. Few hearths were preserved within the buildings, and postholes from wall posts and door posts were also rarely

preserved. In most instances, the total layout and the functional division of the buildings could not be determined. Thus, a full analysis of the layout and functional division of all the buildings at Vik cannot be provided, and several vital questions must remain unanswered. However, the material can support the examination of broader tendencies, such as the spatial distribution of the buildings and the core construction principles. Building construction at Vik is discussed for the pre-Roman Iron Age by Fransson (Ch. 5), for the Roman Iron Age by Heen-Pettersen & Lorentzen (Ch. 6), and for the late Viking Age & early medieval period by Fransson (Ch. 10).

Altogether 36 buildings were examined. Out of these, 26 were three-aisled houses, four were four-post constructions, two were pit houses, and one was a one-aisled longhouse. Three houses were of unique constructions or could not be determined precisely. The dating of the buildings was for the most part based on seeds or charcoal form the postholes. This method requires the addressing of several source-critical questions, but was still chosen, since better methods of dating were not available (for a detailed discussion, see Ystgaard, Gran & Fransson, Ch. 1). The suggested dating spans for each building therefore refer to the ^{14}C dating span, rather than to an estimated life span of each building. The life span of each building was probably shorter than the dating span referred to in Figure 3. Therefore, the life span of each building should be within the dating span in the figure.

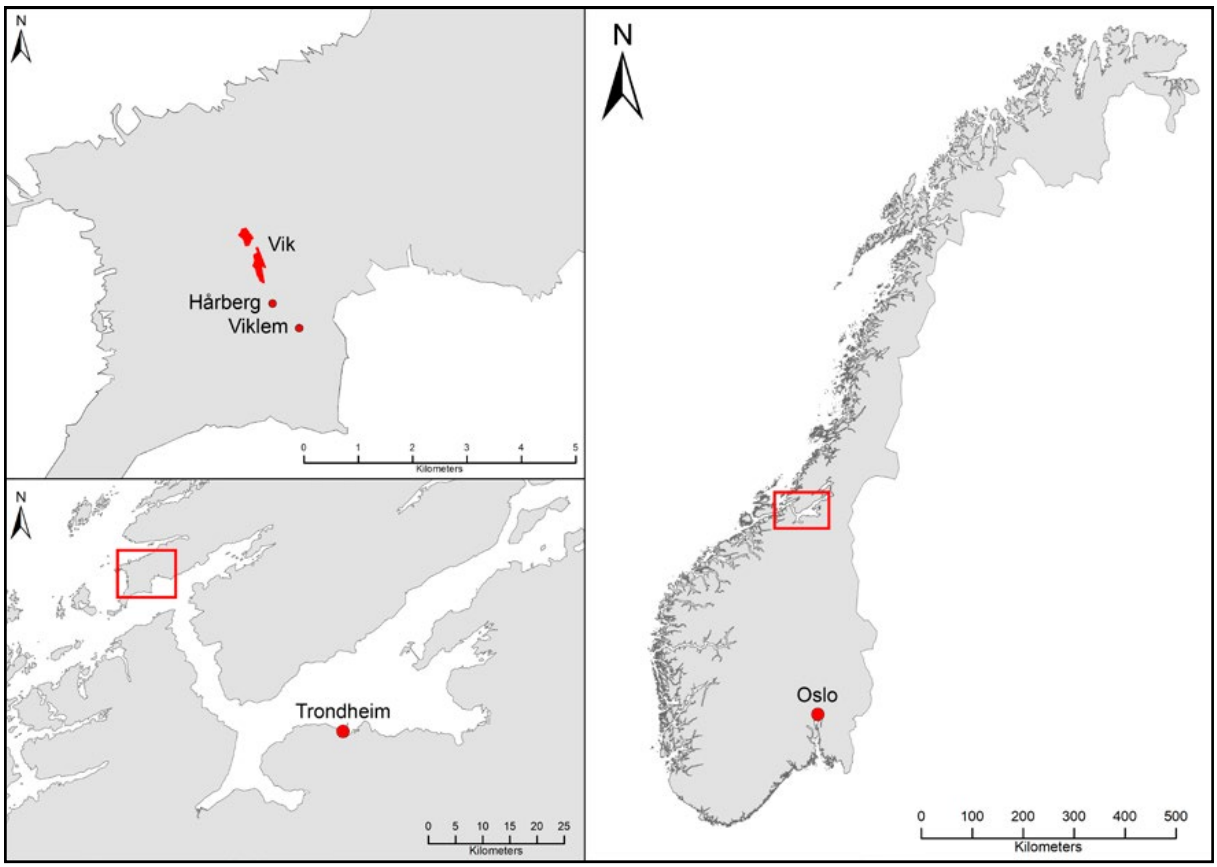

Figure 1. The location of the excavation area. Illustration: Magnar Mojaren Gran, NTNU University Museum.

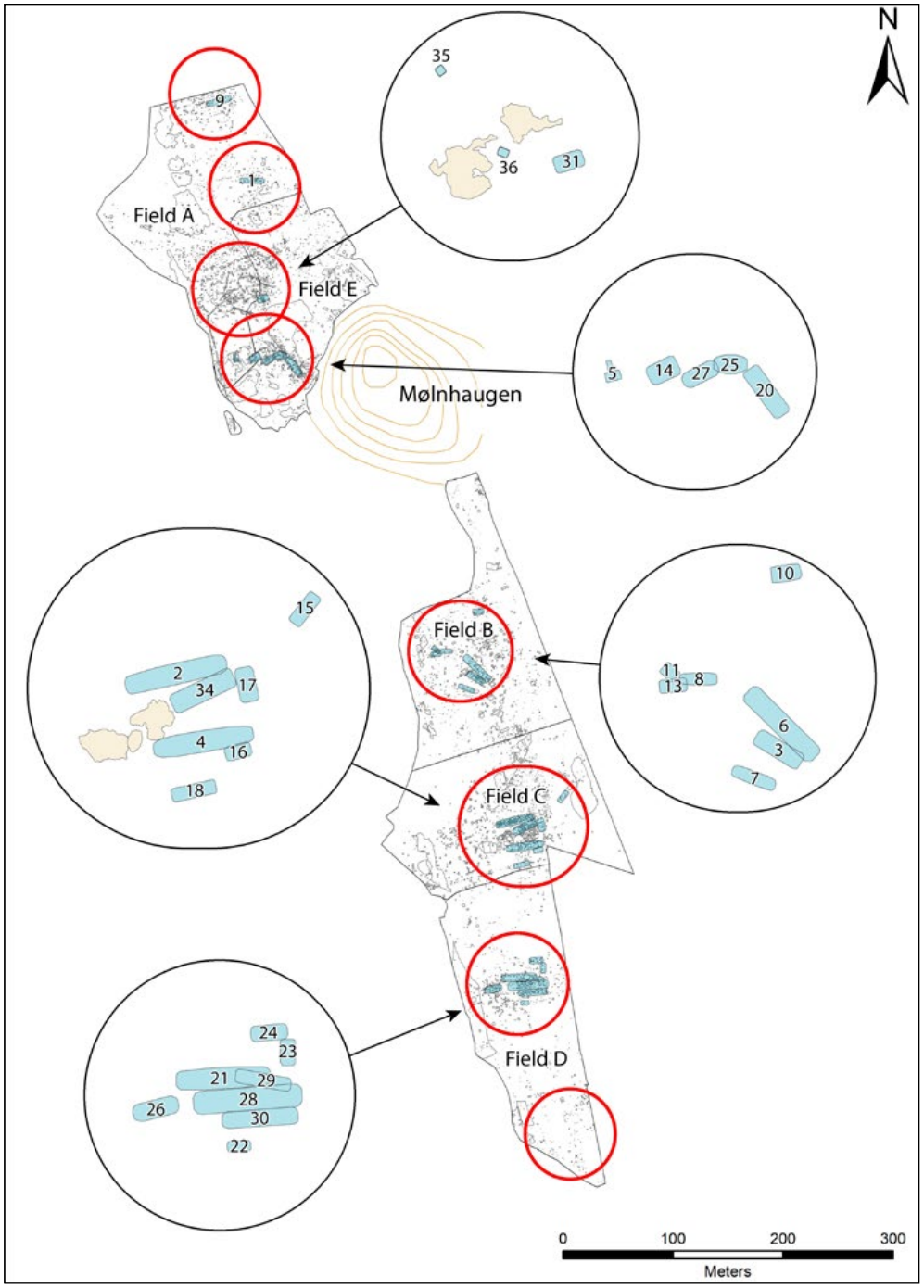

Figure 2. The excavation area at Vik, Ørland. Eight concentrations of settlement traces are highlighted. Illustration: Magnar Mojaren Gran, NTNU University Museum.

The earliest activity at Vik after the land rose in relation to the sea were cooking pits in Phases 0 and 1. The earliest building was possibly erected as early as in Phase 1 (c. 800 – 400 BC, Ystgaard, Gran & Fransson, Ch. 1; Fransson, Ch. 5). The establishment of farmsteads with buildings picked up pace in Phase 2 (c. 400 – AD 50). Dated features from Phases 1 and 2 in addition to buildings were cooking pits, cultural/agricultural layers and wells (Fransson, Ch. 5). The most intensive phase of pre-historic occupation at Vik was during Phase 3 (c. AD 50 – 350). Not only buildings but also cooking pits, hearths, ovens, waste deposits, trackways, water holes and wells, and cultural /agricultural layers were represented (Heen Pettersen & Lorentzen, Ch. 6, Mokkelbost, Ch. 7). Most animal osteological material from the site dates to this period (Storå et al., Ch. 8). A large part of the artefact material from the site also stems from Phase 3 (Solvold, Ch. 9; Mokkelbost, Ch. 7). Both animal bones and artefacts were found in large amounts in waste deposits, but they were also found in post-holes, hearths and cooking pits (Storå et al., Ch. 8; Mokkelbost, Ch. 7; Solvold, Ch. 9, Heen Pettersen & Lorentzen, Ch. 6). Settlement activity diminished considerably during Phase 4 (c. AD 350 – 550), and no buildings were erected within the excavation area during Phase 5 (c. AD 550 – 900). A single farmstead was established north of Mølnhaugen in

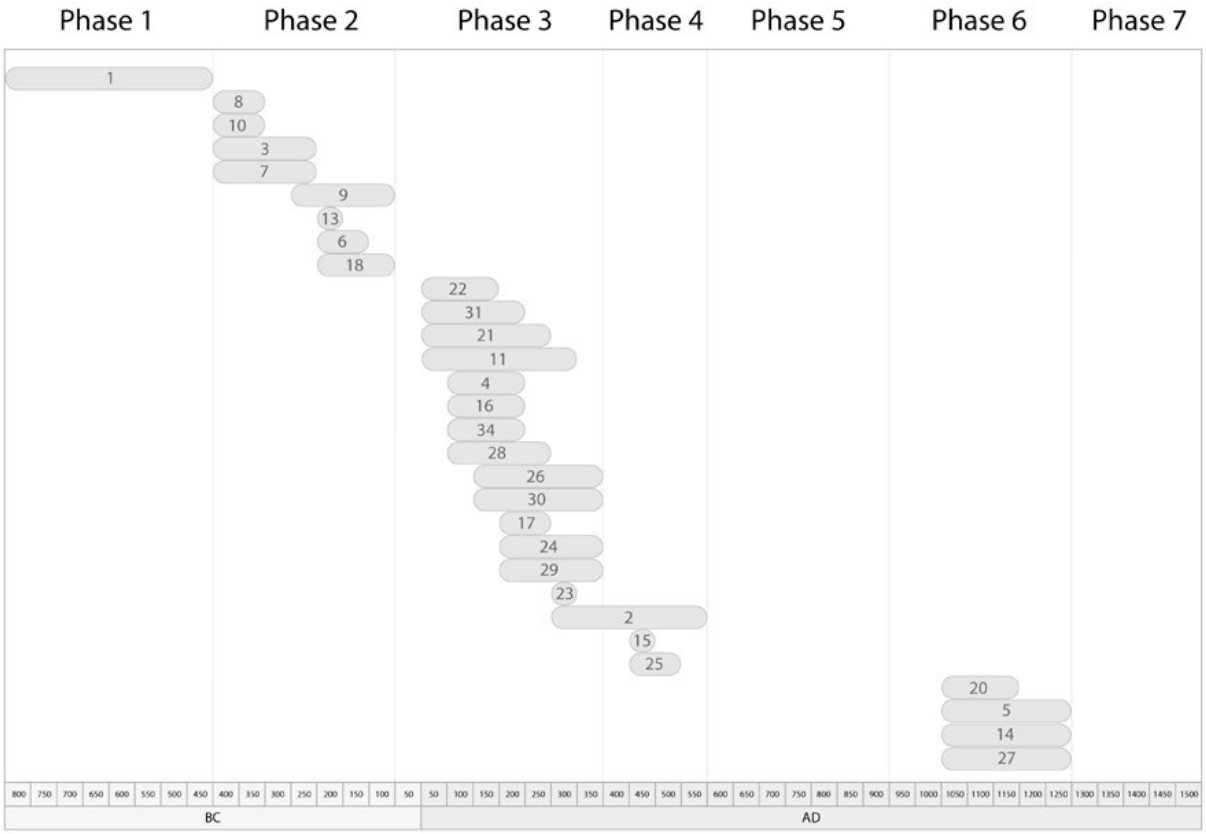

Figure 3. Temporal distribution of dated buildings from the excavation area. Illustration: Magnar Mojaren Gran, NTNU University Museum

Phase 6 (C. AD 900 – 1250), comprising buildings, waste deposits, wells, and ditches (Fransson, Ch. 10).

Macrofossils from archaeological features are usually of vital importance to the interpretation of the spatial and social organization of Iron Age and medieval settlement. Therefore, macrofossil samples were analyzed from a large number of the postholes excavated at Vik. However, preservation conditions for macrofossils were very poor (Linderholm et al., Ch. 4; Moltsen 2017; Ystgaard et al. 2018:47). There are two possible reasons for this. First, few of the buildings at Vik had burned down, so the macrofossils were not carbonized and were therefore less well preserved. Second, only the lower part of most postholes were preserved under the plough soil, and macrofossils from the upper parts of the structures were therefore not preserved.

Soil chemistry, i.e. content of phosphate, can in some instances also indicate functional divisions of Iron Age houses into living spaces for humans and animal byres. Sometimes, the presence of animals outside of buildings can also be indicated. The level of magnetic susceptibility can be an indicator of human activity which heated up the subsoil, i.e. hearths and ovens. However, there are several sources of error connected to all these methods (for a detailed discussion, see Linderholm et al., Ch. 4). Soil chemistry samples were collected both in grids from the subsoil surface in areas with Iron Age occupation, and from archaeological features such as hearths and postholes.

In instances where floor remains are preserved, soil micromorphology can indicate functions in the relevant part of the building by assessing the contents of the floor (Macphail 2016, 2017). Floor remains from only one building at Vik were analyzed (see below). Soil micromorphological analyses were also carried out on samples from agricultural and cultural layers, waste deposits, wells, and sunken lanes (Macphail 2016, 2017, Linderholm et al. Ch. 4).

SPATIAL ORGANIZATION OF PRE-ROMAN IRON AGE FARMSTEADS AT VIK (PHASES 1 AND 2)

In the earliest phase of occupation, Phase 1, the Vik farmsteads seem to have been of the *wandering* type, characterized by one longhouse, alternatively one longhouse and a four-post construction, comprising all the functions of the farm that required a roof. The earliest pre-Roman Iron Age longhouse at Vik, House 1 in Field A, was established on pristine land in Phase 1, and occupied for a short period of time, possibly only one generation. Houses 8 and 10 in Field B were established on pristine land either in Phase 1 or very early in Phase 2, and might also represent a wandering pattern of settlement (Figures 4 and 5; Buckland et al. 2017:28; Fransson, Ch. 5). While the sites of Houses 1 and 10 were never re-occupied after the buildings were abandoned, new buildings (Houses 11 and 13) were erected on the site of House 8 in the earliest part of Phase 2. The erection of new buildings on earlier occupied sites became the rule at Vik during Phase 2. Houses 3 and 7 in Field B were probably occupied simultaneously, and House 6 followed them on the same site (Figure 5). Together, these buildings constituted a farmstead which moved towards the *fixed* farmstead, in that buildings followed each other on the same site, and that functions within the farmstead were shared between two buildings (Houses 3 and 7, Fransson Ch. 5).

House 9 in Field A, dating to Phase 2, was also built on pristine ground (Figure 4; Buckland et al. 2017:35; Fransson Ch. 5), but indications are that House 9 was part of a farmstead extending to the north, outside of the development area (Haugen, Sjøbakk & Stomsvik 2014). Based on dates of the cooking pits surrounding House 9, I suggest that this farmstead was occupied in Phase 2 and the following Phase 3 (c. AD 50 – 350). My interpretation is also based on the situation of House 18 in Field C,

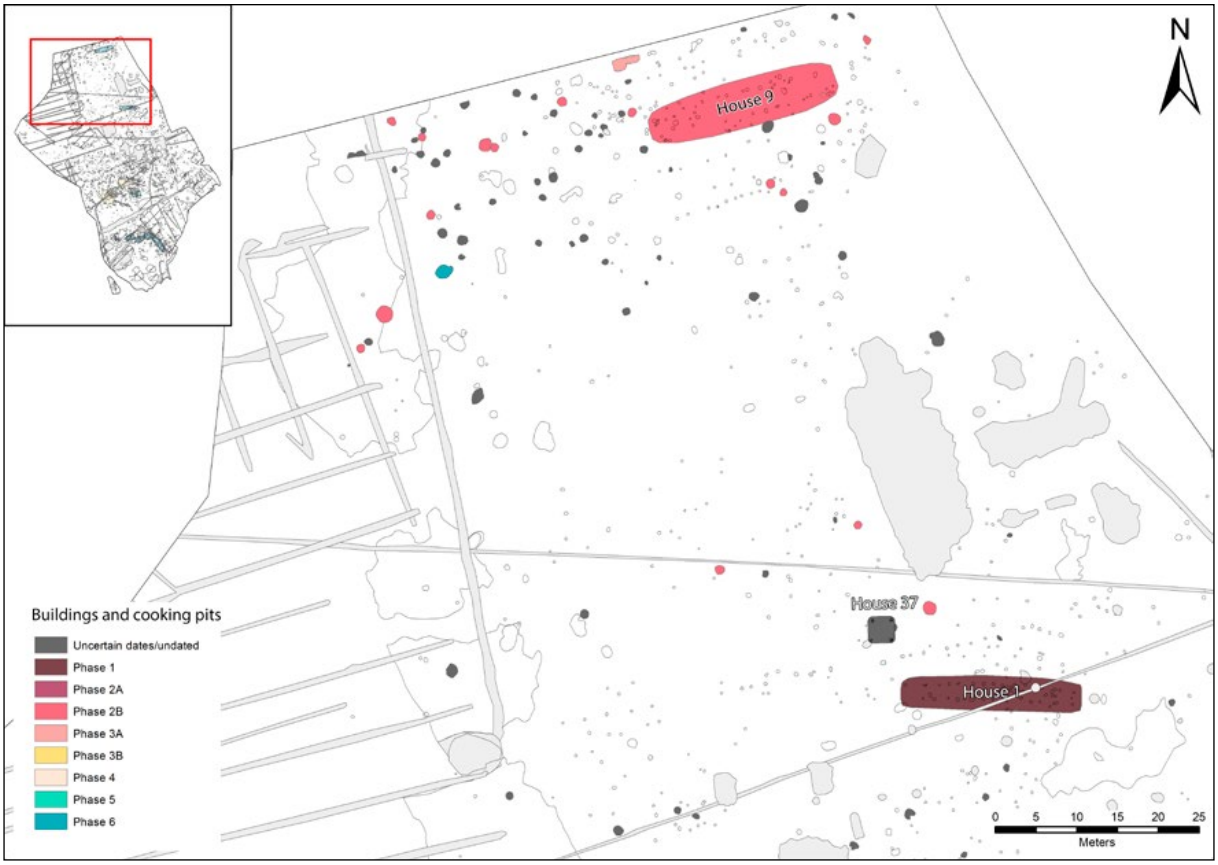

Figure 4. Phase 1 and 2 (pre-Roman Iron Age) buildings in the northern part of Field A. Illustration: Magnar Mojaren Gran, NTNU University Museum.

which was built towards the end of Phase 2. House 18 was also built on pristine ground, but constituted the first building in a Phase 3 to 4 farmstead in Field C, which was found to the north of House 18 (Heen-Pettersen & Lorentzen, this volume). It is an intriguing fact that the buildings of Phase 2 do not overlap in time with buildings from Phase 3 (Figure 3). We do not yet have a good explanation for this, but further statistical analysis of the dating material might shed more light on this question.

Cooking pits were associated with all the recorded pre-Roman Iron Age buildings, but the number of cooking pits associated with each building varied throughout the pre-Roman Iron Age. Relatively few pits were associated with the earliest buildings on the site, Houses 1, 8 and 10, (Figures 4 and 5). Altogether 18 cooking pits surrounded House 1, and they were found in a spread-out pattern. Nine of the pits were dated: three were from the early pre-Roman Iron Age, five were from the late pre-Roman Iron Age, and one pit dated to the Roman Iron Age (Mokkelbost & Fransson 2018:144). Possibly, cooking pits marked the limit between infields or a kitchen garden area connected to the house, and

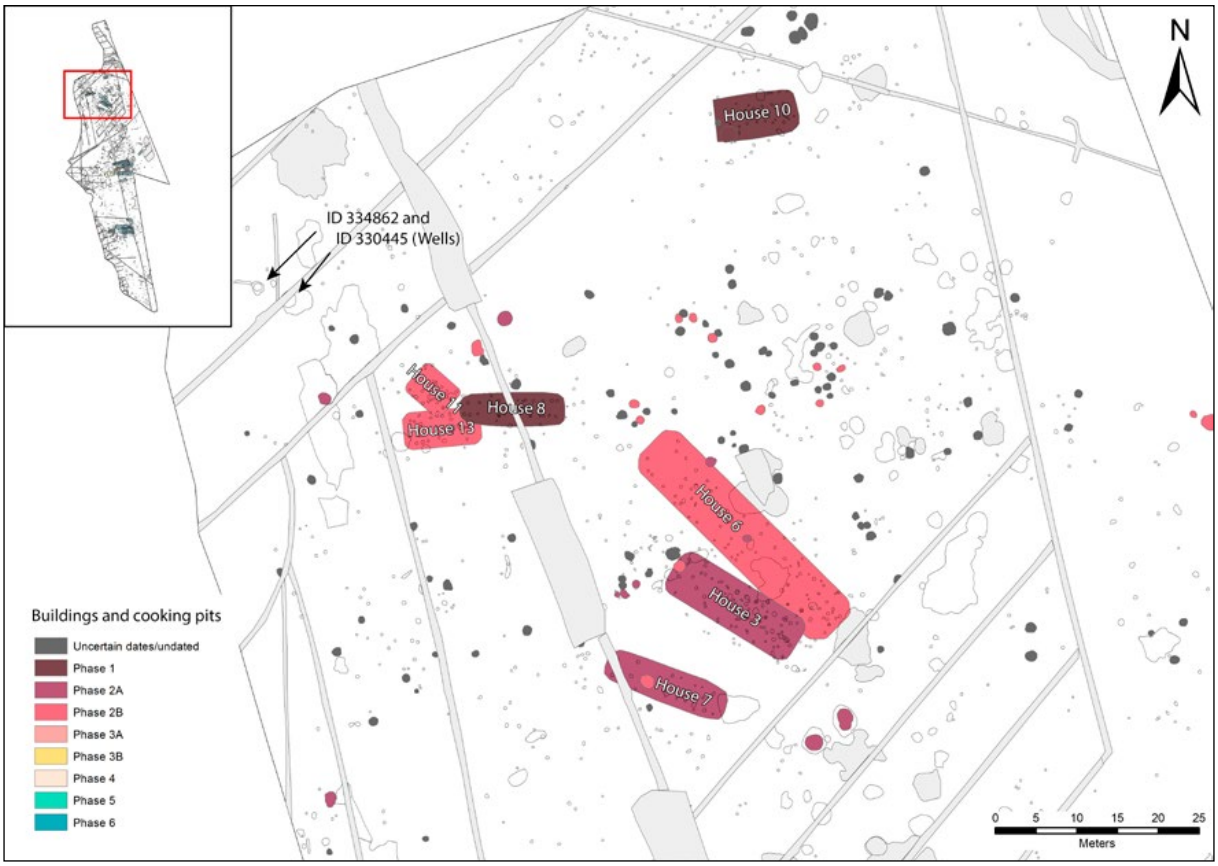

Figure 5. Phase 1 and 2 (pre-Roman Iron Age) buildings in Field B. Illustration: Magnar Mojaren Gran, NTNU University Museum.

outfields and grazing areas combined with other agricultural land further off. In Field B, relatively few cooking pits were from the same period as the early buildings Houses 8 and 10 (Fransson 2018:446). The tendency for the earliest buildings at Vik to be associated with relatively few cooking pits could be explained by their relatively short periods of occupation.

In Phase 2, there are a higher number of cooking pits associated with each building. Quite a few cooking pits in Field B were dated to the first part of Phase 2, i.e. c. 400 – 200/250 BC, and most of these pits were clustered in groups around Houses 3 and 7. Several cooking pits were also dated to the second part of Phase 2, and were clustered around House 6 (Figure 5; Fransson 2018:447; Fransson Ch. 5). A fair number of pits were associated with House 9 in Field A and House 18 in Field C, both dated to the later part of Phase 2. A large number of the cooking pits associated with these buildings formed an irregular line towards the west, where the terrain from both houses fell towards a lower and more moist area (Figures 4 and 6). This pattern is comparable to a situation described at Torgård, Trondheim, where large clusters of cooking pits were found in the transition zone between dry

land and marshland, suggesting rituals connected to the cooking pits focusing on the transitional area between dry and wet land (Grønnesby 2015:123).

There were also a fair number of cooking pits dated to Phases 1 and 2 which were not associated with contemporary buildings. These pits were found in central parts of Field A and E, in Field E, and in Fields C and D (Figures 6 – 9; Ystgaard, Gran & Fransson Ch. 1, Figures 7 and 8). This indicates that cooking pits were not strictly associated with the built environment. Instead, some of the cooking pits from Phase 1 and the earliest part of Phase 2 can possibly be associated with animal herding and a mobile land-use pattern. This must have occurred both before and contemporaneously with the built environment (Petersson 2006:169; Ystgaard, Gran & Fransson, Ch. 1).

The Pre-Roman Iron Age farmsteads show varying evidence of the presence of animals. The best evidence of indoor stabling of animals on the entire site comes from early Pre-Roman Iron Age House 1, which had remains of a clay floor with a wooden top layer preserved. In the clay flooring, traces of animal dung were found, as well as higher levels of phosphates in the western part of the building (Linderholm et al., Ch. 4; Fransson, Ch. 5). Based on the distance between the trestles, and on the absence of a fireplace, the southern end of House 3, Field B, can be interpreted as a barn, but the evidence is not conclusive (Fransson, Ch. 5). The other buildings from the period were either poorly preserved or did not produce any evidence for barns or byres. Evidence for animal husbandry outside building remains from the pre-Roman Iron Age includes indications of manuring in agricultural layers. The clearest evidence of manuring practices comes from Field E. In this area, dates from cooking pits and a few postholes indicate settlement in the pre-Roman Iron Age, but no buildings from this period were identified, due to disturbance caused by a 19th century farm. Here, a cultural/agricultural layer was investigated, dating to Phase 2 (Fransson 2018:249-250). In the cultural/agricultural layer, micromorphology analyses indicated fertilizing with both household waste and animal dung (Macphail 2017:32-33). Pollen analyses from the same layers indicated cultivation of barley, some wheat, and some hemp or hops (Overland & Hjelle 2017:38-39).

Buildings 3 and 7, Field B, were among the few buildings at Vik that possibly burnt down. Both yielded a large macrofossil material, indicating crop cultivation (Fransson 2018:414). Based on the presence of both naked and hulled barley, as well as large amounts of straw, House 7 is interpreted as a combined storehouse and threshing barn. Large amounts of straw were also present in House 3, supporting the interpretation of one end of the building as a barn (Fransson, Ch. 5).

Compared to later periods at Vik, fishing is poorly represented in the evidence from the pre-Roman Iron Age. Fish bones were not preserved in any great amounts from pre-Roman Iron Age contexts, but a fishing weight was found in a pit in the southern part of Field A, dated to Phase 2 (Mokkelbost 2018:335). Also, a whale bone was found in a pre-Roman Iron Age well in Field B. This suggests strongly that the location of Vik close to the marine resources was most likely important for its pre-Roman Iron Age inhabitants.

Although the evidence of animal husbandry, agriculture and fisheries is poorly preserved and in many cases lacking, there is, nevertheless, some evidence of all three activities taking place in pre-Roman Iron Age Vik. Animal husbandry is present in the evidence throughout the period, and judging from evidence elsewhere in Scandinavia and northern Europe, animal husbandry, and perhaps especially that of cattle, was of great importance, both economically and culturally, to pre-Roman Ion Age societies. The change towards more fixed farmsteads during

Phase 2 possibly indicates an increasing importance for agriculture, associated with a closer relationship between people and place.

Although no graves have been identified close to the pre-Roman Iron Age settlement at Vik, ritual activities are probably present in the material. In both Houses 6 and 7, pottery was found in postholes in the southwestern parts of the longhouses. The deposits could be interpreted as waste, but an interpretation as placed deposits, in line with deposits from the same period in southern Scandinavia, is an option (Fransson Ch. 5, with references).

SPATIAL ORGANIZATION OF ROMAN IRON AGE AND MIGRATION PERIOD FARMSTEADS AT VIK (PHASES 3 AND 4)

The earliest *fixed* farmstead in Vik, comprising Houses 3, 6, 7 and perhaps also Houses 8, 11 and 13, all in Field B, was abandoned towards the end of Phase 2, around 50 BC. At the same time, new settlement was established in Field C, commencing with House 18 (Fransson, Ch. 5). Settlement in Field C thrived throughout Phase 3, and also lasted a while into Phase 4. At the same time, occupation was also intense in the central parts of Fields A and D. Unfortunately, only

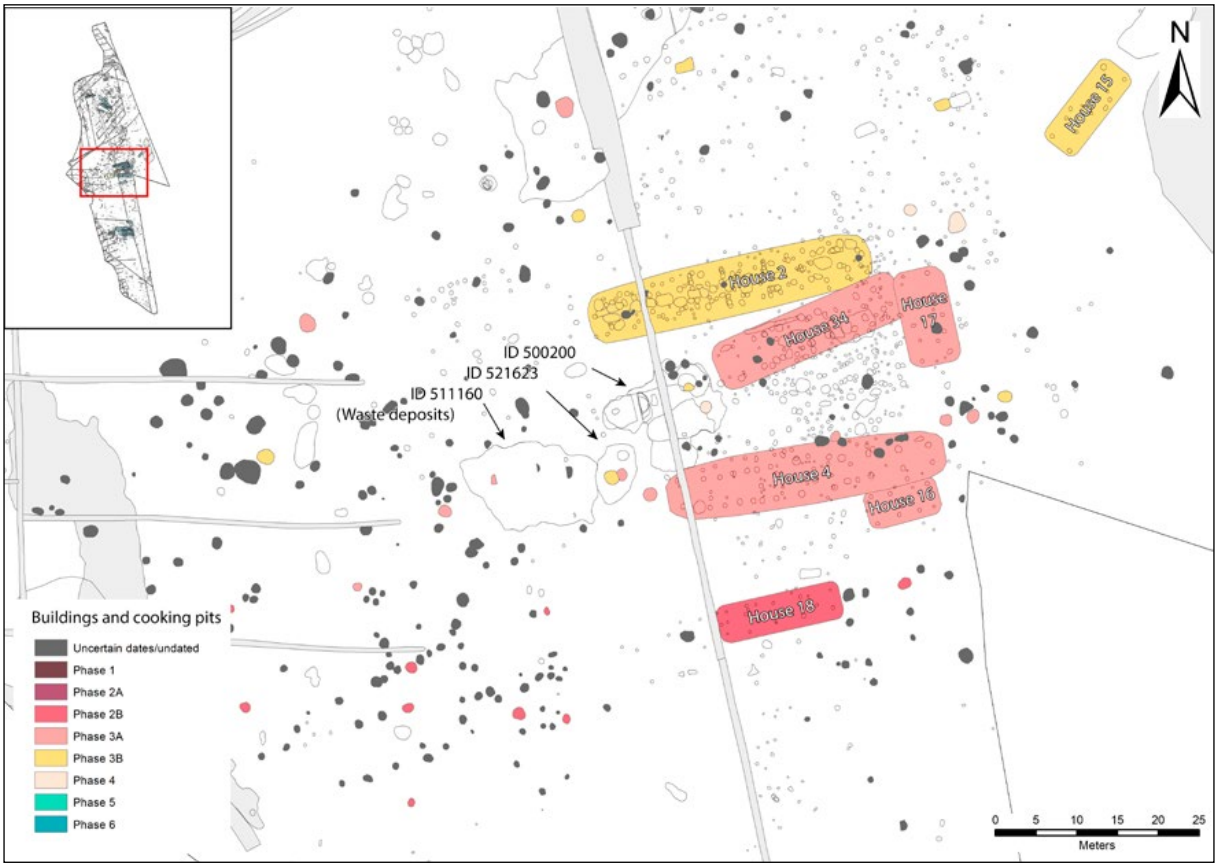

Figure 6. Phase 2 and 3 buildings in Field C. Illustration: Magnar Mojaren Gran, NTNU University Museum.

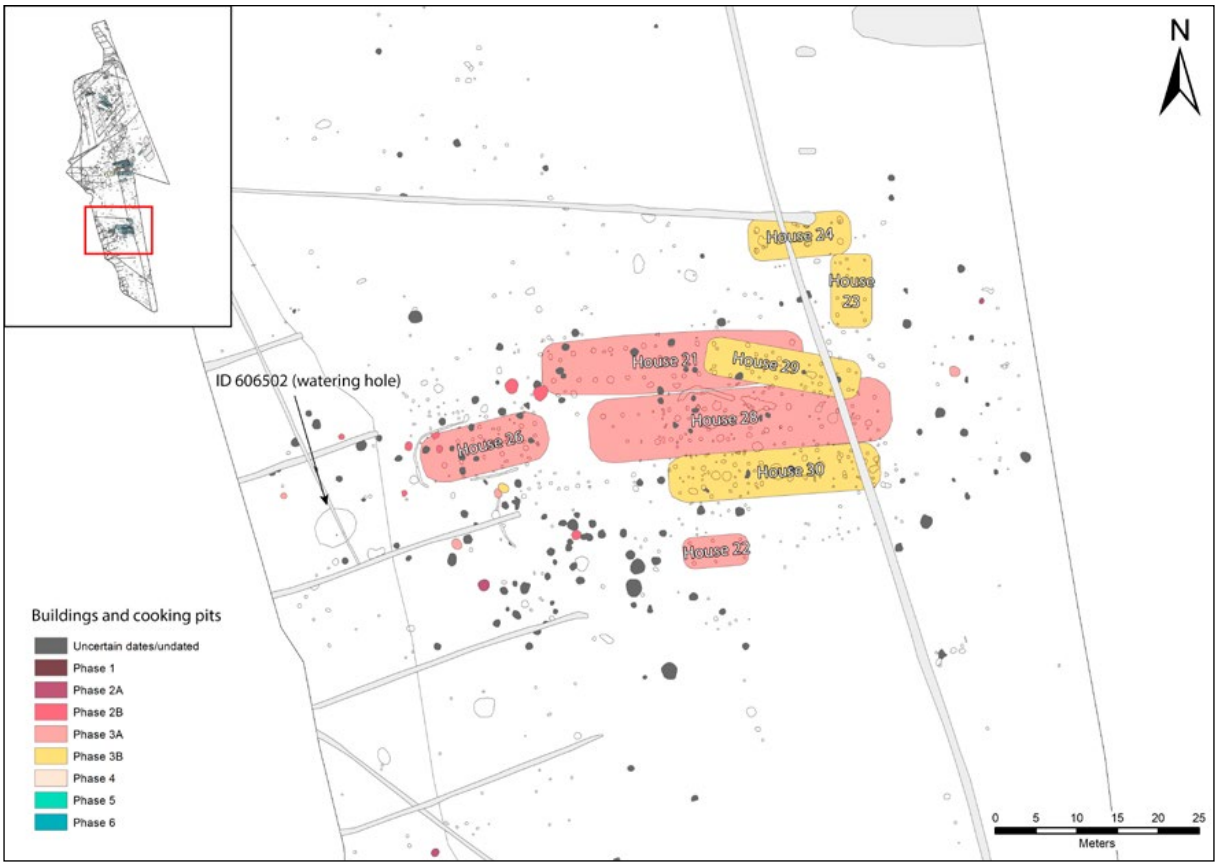

Figure 7. Phase 3 (Roman Iron Age) buildings in Field D. Illustration: Magnar Mojaren Gran, NTNU University Museum.

parts of the settlement, and no longhouses, were preserved in Field A, because of a 19th century farmstead and modern day military activity. In contrast, buildings in Field D were relatively well preserved. All these three settlements were truly *fixed* farmsteads, lasting for several generations between c. AD 50 and AD 350, and some also continuing until c. AD 550, with an activity peak around AD 150 – 200 (Figures 6-8).

The layout and function of the settlements in Fields C and D have been analyzed by Heen-Pettersen & Lorentzen (Ch. 6). Their analysis shows that both farmsteads had two longhouses of a distinct building tradition (Houses 2 and 4 in Field C, and Houses 21 and 28 in Field D). The longhouses had relatively wide center aisles and closely placed trestles in the western part of the building, an enlarged central room, and a narrower central aisle and trestles placed further apart in the eastern end of the building (Heen-Pettersen & Lorentzen, Ch. 6). The remaining four Roman Iron Age longhouses, House 34 in Field C and Houses 26, 29 and 30 in Field D, comprised two rows of roof-bearing posts, a type recognized from other parts of central Norway and elsewhere in Norway (Heen-Pettersen & Lorentzen, Ch. 6, with references).

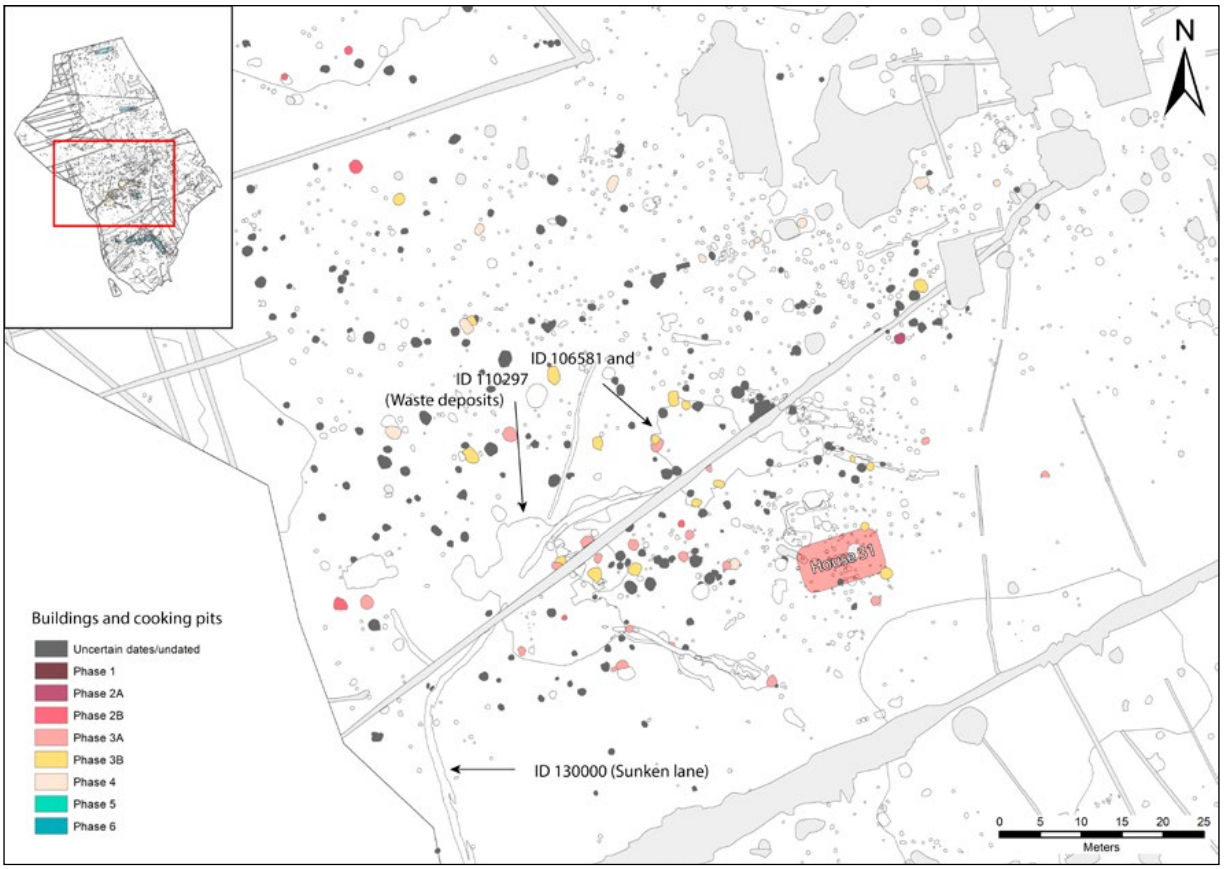

Figure 8. Phase 3 features in the central parts of Fields A and E. Illustration: Magnar Mojaren Gran, NTNU University Museum.

Heen-Pettersen and Lorentzen's results indicate that there were three to four generations of buildings in each farm, and that each generation of buildings consisted of the combination of a longhouse and a shorter building. In the earliest generations in each farmstead, indications are that the shorter houses associated with the longhouses were storehouses (House 16, Field C) or ancillary buildings of unknown functions (House 17 in Field C, and Houses 22 and 23 in Field D). In the later generations of farmsteads, a change seems to have occurred. Two of the shorter buildings from the last phases of Fields C and D stand out from the earlier short buildings. In Field D, House 24 is, according to Heen-Pettersen and Lorentzen's interpretation, associated with longhouse 30. They point out that the building cannot be classified as a regular ancillary structure, with its substantial postholes and two fireplaces in addition to finds of pottery. In Field C, House 15 also stands out, primarily because of its placement to the north of the rest of the farmstead, but also because of its orientation, which is different from that of the other houses in Field C (see Figure 6). The narrow center aisle of House 15 points towards a late building tradition (Göthberg 2000, Karlenby 2007), which is in line with the

dating of the building suggested by Heen-Pettersen and Lorentzen. In Heen-Pettersen and Lorentzens interpretation, House 15 is associated with House 2.

Leif Karlenby (2007) has found that in the Mälaren valley in Sweden, larger, central rooms start appearing in longhouses from around the time of the birth of Christ (Karlenby 2007:124). The enlarged, central room met the need for a meeting room and a room for the greater occasions in life – a *storstuga* – in farmsteads which had become increasingly fixed in place, and which had an increasing number of inhabitants. Around 400 AD, however, argues Karlenby, the functions which, until then, had been served by the main room in the longhouse, were moved out of the longhouse, and held in a separate building. These buildings were the earliest versions of the free-standing hall. In its earliest version, the free-stranding hall was found on almost every farmstead in the Mälaren valley (Karlenby 2007:125). In south Scandinavia, Frands Herschend has found that separate hall buildings existed in most farms from the 3rd to 4th century (2009:253). The removal of the hall functions from the central hearth of the family home accompanied a transition from a kin-based to a class-based society (Karlenby 2007:124). Karlenby has found evidence that after the hall functions had been removed to separate buildings the longhouses remained, but without their former, enlarged central rooms (Karlenby 2007:131). Trond Løken has observed that most longhouses in Forsand had enlarged central rooms, while one building possibly represented a separate hall building (Løken 2001).

In Field D, longhouses 21 and 28 were both of the same building tradition with an enlarged central room. Both longhouses had an ancillary house. We cannot determine the functions of these houses. Associated with longhouse 21 was House 22, a small building with three pairs of trestles and a fireplace in its western end (Lorentzen 2018:564). No macrofossils were preserved. Associated with House 28 was House 26, which was considerably larger, with six trestles placed in three groups of four posts, and with a central fireplace. A few grains of barley were preserved in the postholes (Lorentzen 2018:576-579). In contrast, longhouse 30 was of the more common building tradition, without the clearly marked central room of Houses 21 and 28, although with a greater distance between the trestles in the central part of the building (Lorentzen 2018:592). Associated with House 30 was the quite special, smaller House 24. The buildings in Field D could illustrate Karlenby's findings from the Mälaren valley, where house pairs 21 + 22 and 26 + 28 represent longhouses with enlarged central rooms accompanied by ancillary houses. In contrast, house pair 24 + 30 could represent the earliest free-standing hall, combined with a longhouse without an enlarged central room.

Field C is more difficult to interpret. Here, House 4 had an enlarged central room, and was associated with House 17, which was of uncertain function but possibly functioned as a combined storehouse and living quarters (Heen-Pettersen 2018:484). House 34 had one, possibly two, larger rooms, although it was not built in the same tradition as House 4. Associated with House 34 was House 16, which most likely was a storage house (Heen-Pettersen 2018:479). House 2 was also a building with an enlarged central room, and associated with House 15, a possible free-standing hall building. This does not fit with the notion that a longhouse associated with an early, free-standing hall should not have an enlarged central room (Karlenby 2007:131). However, House 2 had two phases; House 2a, which was the large version of the longhouse with an enlarged central room, and House 2b, which was a shorter version of the longhouse, without an enlarged central room (Heen-Pettersen & Lorentzen, Ch. 6). One could suggest that House 2b was the house associated

with House 15, and thus that the functions of the main room of House 2a were moved to House 15, while the remaining functions of the longhouse were found in House 2b. However, ^{14}C dates from the three buildings overlap, and a more nuanced chronological relationship between the buildings has not yet been established (Heen-Pettersen & Lorentzen, Ch. 6).

With these reservations, one can still suggest that the earliest phases of the farmsteads in Fields C and D had longhouses with enlarged central rooms, and that there are indications of free-standing halls in the later phases of the farmsteads. The material corresponds well with the pattern from the Mälaren valley. However, the first possible free-standing halls in Vik occurred around AD 300, which is early in comparison with the Mälaren valley material. The pottery at Vik demonstrates an increasing proportion of finer tableware in the Late Roman Iron Age. This indicates a change in food practice, when commensality connected with status and power brought about finer types of pottery and the serving of better food and beverages (Solvold, Ch. 9). This is consistent with a more explicit culture with feasts and rituals focusing on the halls.

The farmstead in Field D was abandoned around AD 350. Farmstead activity in both Fields C and A continued into Phase 4, but there is no evidence of new buildings being erected, and both farmsteads seem to have been abandoned around AD 550. Only one building from Phase 4 (AD 350 – 550) is recorded at Vik, namely House 25 in Field E. This house is found in an area where modern day disturbance and activity through many prehistoric phases blur the picture, and a full interpretation of the layout of the Migration period farmstead in Field E cannot be established (Fransson, Ch. 10). Around AD 550, activity in Field E ceased, and there was an absence of activity at Vik for the next almost 400 years.

Several cooking pits were associated with the Phase 3 farmsteads at Vik. Many were dispersed around the farmsteads, but a large number were concentrated in the areas surrounding the buildings and the area between the buildings (Heen-Pettersen & Lorentzen, Ch. 6). A considerable amount of the contents of the large waste deposits recorded in the central parts of the farmsteads in Fields A and C consisted of fire-cracked stones and charcoal, probably from cooking pits, and there were cooking pits both underneath and surrounding the waste deposits (Mokkelbost, Ch. 7). In the last phases of occupation in Field C, there were even cooking pits inside House 2 (Heen-Pettersen, 2018). A general tendency is therefore that the cooking pits became increasingly tied to the farmstead and to the buildings of the farmstead during Phase 3 (Heen-Pettersen & Lorentzen, Ch. 6). Meals associated with feasts seem to concentrate more on the built environment in Phase 3 than in Phase 2.

Large waste deposits dating mainly to Phase 3 were associated with the *fixed* farmsteads in Fields A and C. In Field C, where both waste deposits and buildings were preserved, the largest waste deposit was situated just outside and to the west of longhouses 34, 4 and 2. Analysis of the waste deposit in Field C indicates that the earlier parts of this waste deposit were associated with House 4, and perhaps also House 34, while the latter layers of the deposit were associated with House 2 (Mokkelbost, Ch. 7). The waste deposit in Field C consisted of material from cooking pits, as well as household waste including material which had probably been cleaned out of fireplaces in House 2. Whetstones, bone artefacts, rivets and nails, a knife, a fishing hook and a key were represented in the waste deposit. Finer items such as a glass bead and fragments of an imported drinking glass, a silver ring and a bronze ring, as well as pottery and large amounts of animal and fish bones were also found in the waste deposit

(Mokkelbost, Ch. 7; Solvold, Ch. 9; Storå et al., Ch. 8). In the central parts of Field A, the relation between buildings and the waste deposits cannot be discerned, since few buildings could be identified. However, the large waste deposit in this area was rich in finds and information. The contents of the deposit indicated that material from cooking pits and fireplaces was represented. Micromorphology analyses of the contents of the deposit identified animal dung and human waste (Macphail 2016:4). Artefacts from the deposit included whetstones, a broken belt stone, rivets and nails, a knife, a fish hook, glass and amber beads and a hand quern as well as pottery; in addition, large amounts of animal and fish bones were also found in the deposit (Mokkelbost, Ch. 7; Solvold, Ch. 9; Storå et al., Ch. 8).

Household waste, human waste and animal dung from the fixed settlements in Fields A and C was thus collected and deposited in defined areas located close to the farmsteads. From these heaps, waste was probably transported to the nearby fields as fertilizer. In Field A, waste transportation is probably recorded in the sunken lane (Buckland et al. 2017; Linderholm et al., Ch. 4).

Evidence of animal husbandry is abundant in Phase 3, thanks to the well preserved waste deposits in Fields A and C (Storå et al., Ch. 8). In the bone material, cattle and sheep/goats were represented to a large degree, and some pig bones were also present. A few bones of wild species indicate that some hunting also took place, but to a limited extent. Kill-off patterns of cattle and sheep indicate that production in Fields A and C was somewhat differently directed. In the Field A waste deposits, cattle kill-off patterns favored adult animals, indicating that dairy production was central. In Field C waste deposits, kill-off patterns indicate that meat production was more important. For sheep/goats, kill-off patterns in Field A deposits indicate that meat production was important, while in Field C animals lived longer and thus wool production could have had greater importance. Analysis of cattle bones show that toe bones were generally not present, indicating that slaughter took place elsewhere, or possibly that hides with attached feet bones were taken elsewhere (Storå et al., Ch. 8).

Fish bones were present in all waste deposits, indicating that local fisheries were of great importance to the everyday diet in Phase 3 Vik. Codfish dominated in all deposits, but codfish species such as Atlantic cod, common ling, haddock and saithe were not evenly distributed. The distribution might indicate that fisheries were specialized towards different codfish species in different farmsteads. Also, it could reflect different fishing practices (Storå et al., Ch. 8).

Cultivation took place in the nearby areas, and agricultural layers at Vik are dated to Phase 3. Macrofossils preserved in buildings in Fields C and D as well as in House 25 from Phase 4 in Field E, show that barley was cultivated along with some oats.

Analysis of the Phase 3 pottery at Vik indicates that at least some of the bucket-shaped pottery recovered from waste deposits and buildings was locally produced (Solvold, Ch. 9). Some remnants of what appear to have been ovens and kilns have been examined, but we cannot state whether they were used for pottery production or other production (Mokkelbost, Ch. 7; Solvold, Ch. 9). A pair of ovens were excavated in depressions stratigraphically older than House 34 in Field C. These were most likely baking ovens, although pottery production cannot be excluded (Heen-Pettersen 2018:497-498).

There are a few examples of placed deposits from Phase 3 contexts at Vik. In a posthole in House 34 in Field C, two compete pottery jars were deposited. Our interpretation is that the vessels were deposited in connection with rituals associated with the abandonment of the building (Heen-Pettersen & Lorentzen, Ch. 6; Solvold, Ch. 9). A similar deposit,

this time of a fragmented vessel, was found in House 21 in Field D (Lorentzen 2018:555-556). In general, Phase 3 buildings seem to have been cleaned in connection with abandonment, since very few finds were made in them. This is in contrast to House 2, which does not seem to have been cleaned in the same way. In the case of House 2 complete animals were buried in the final stages of residence in the house; a piglet in a cooking pit, and a foal in a pit associated with the building (Heen-Pettersen & Lorentzen, Ch. 6, Storå et al., Ch. 8).

DECLINE AND ABANDONMENT (PHASE 5)

Both archaeological and botanical material indicate that Vik was more or less deserted for a period of almost 400 years between c. AD 550 and c. AD 950 (Fransson, Ch. 10; Overland & Hjelle, Ch. 3, Ystgaard, Gran & Fransson, Ch. 1). This period of decline largely corresponds with material from other parts of Scandinavia. Several reasons for the decline have been suggested, including climatic deterioration both on a long and short term, and in the aftermath possible outbreaks of plague, and societal changes in continental Europe in the aftermath of the fall of the Western Roman Empire (Fransson Ch. 10 with references; Ystgaard, Gran & Fransson, Ch. 1 with references). The *Late Antique Little Ice Age* (Büntgen et al. 2016) is a very likely reason why the already dwindling settlement came to such an abrupt end. At Vik, signs of local activity are hardly present between c. AD 550 and 950. Still, regional archaeological finds as well as botanical data do show that the region was not deserted altogether (Fransson Ch. 10; Overland & Hjelle, Ch. 3).

SPATIAL ORGANIZATION OF LATE VIKING AGE AND EARLY MEDIEVAL PERIOD FARMSTEADS AT VIK (PHASE 6)

Re-occupation in Vik took place in Field E, a part of the excavation area where there are signs of occupation from most parts of the Iron Age, but where interpretation of these remains has been difficult due to modern day disturbance. The Phase 6 farm was probably not completely preserved. However, a two-aisled longhouse, built in a timber framing technique, was the farmstead's central building (House 20), constituting a completely different construction technique compared to the Phase 3 and 4 three-aisled buildings at Vik. In addition to the longhouse, a pit house with a raised fireplace was excavated (House 38), as well as three well-preserved wells, a waste pit and three buildings with uncertain dates (Houses 5, 14 and 27), which could possibly represent economy buildings related to the Phase 6 farm (Figure 9; Fransson Ch. 10).

The Phase 6 farmstead thus represented a new spatial organization, where the functions of the farm were divided among several buildings, as opposed to the Early Iron Age preference for collecting functions under the same roof of the three-aisled longhouse (Sauvage & Mokkelbost 2016:289). Oma (2016) argues that the separation of functions between several buildings observed in early medieval period farmsteads might reflect a separation between humans and animals as well as between members of the farmstead's community, and she further relates this to the change from a pagan to a Christian world view. The separation of the functions of the farm between a larger number of buildings also contributed to a more marked gap between the different social groups of the farm (Sørheim 2016). Based on the relatively poor position of the Field E farm, in an area with some moisture in the ground, and on indications of a building technique which reflects re-use of timber, Fransson suggests that the inhabitants of the Phase 6 farmstead at Vik belonged to the lower strata of society. In nearby Viklem, a Viking Age and early medieval period farm with hall buildings, probably belonging to the upper strata of society, has recently been examined (Ellingsen

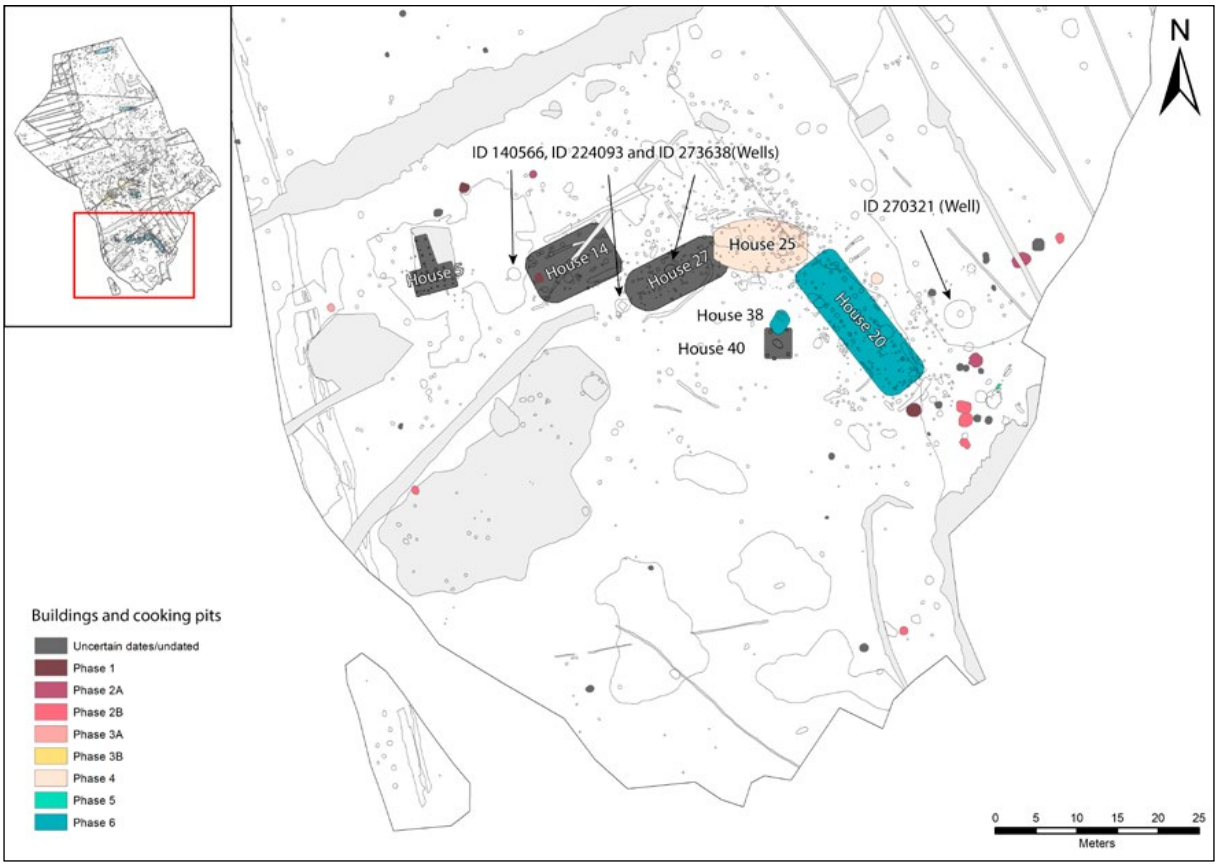

Figure 9. Features from Phases 1, 2, 4 and 6 in Field E. Illustration: Magnar Mojaren Gran, NTNU University Museum.

& Sauvage, Ch. 13). The Phase 6 farmstead at Vik gives the impression of being a farm subordinate to the Viklem farm, or possibly to another high status farm in the nearby area (Fransson, Ch. 10).

A characteristic of Late Iron Age farms is that the number of cooking pits decreases. Instead, layers of burnt rocks, associated with beer brewing, are often found close to the farmsteads (Grønnesby 2016, Bukkemoen 2016). At Vik, very few cooking pits were dated to the same period as the Phase 6 farmstead. However, there are no indications of brewing stones near the farmstead. This could be a question of representation, since the area has been disturbed by modern day activities. However, another explanation could be the relatively low social status of the inhabitants of the farm. Perhaps social expectations of brewing beer and holding feasts did not apply to farmers of the lower social strata (cf. Grønnesby 2016, Bukkemoen 2016)?

Waste was collected in designated pits, and was also discarded in wells which had gone out of use (Fransson, Ch. 10; Randerz, Ch. 11). Micromorphology analysis from a waste pit or a latrine (id. 270600) indicated a combination of household waste, human waste, byre waste and possibly indications of a nearby smithy. The pit

was sealed off with clay (Macphail 2017:34-35; Fransson Ch. 10).

Three wells were preserved at the Phase 6 farmstead. They were different in structure and possibly also function. In one of the wells (id. 224093), a wooden frame, built of re-used wood from boats and buildings, kept the drinking water fresh. The frame closely resembled frames in wells excavated in the medieval town of Trondheim, for instance in *The Public Library Site* (Christophersen & Nordeide 1994:151, Harald Bentz Høgseth, personal communication). In another well (id. 270321), dug more than 1.5 m down into the clay ground underneath the farmstead, leather shoes, a wooden toy boat and a wooden trough were found in backfill layers, all dating to the early medieval period (Randerz, Ch. 11).

Three buildings of unknown function and obscure date possibly belonged to the Phase 6 farmstead (Houses 5, 14 and 27). These buildings could have been economy buildings or barns belonging to the farmstead. Better indications of the presence of animals, however, are the several ditches that have been examined at the farmstead (Fransson Ch. 10, Figure 14). Animal dung is recorded in micromorphology samples both in waste pits and wells. Botanical studies from archaeological features related to the Phase 6 farm also indicate the presence of animals. Pollen associated with byre material from the waste pit 270600 hold high values of heather and herbs, indicating outfield heathland grazing (Overland & Hjelle, Ch. 3). Both barley and hops/hemp have been identified. Indications are that smithing took place in the farmstead (Macphail 2017:34-35).

CONCLUSION

As a general tendency, farmsteads at Vik followed the main patterns of spatial organization recorded elsewhere in Scandinavia, although with local variations both in layout and chronology. The earliest farmsteads from the first part of the pre-Roman Iron Age at Vik were of the wandering type, with a short-lived building erected on pristine ground. A spread-out pattern of cooking pits enhances the mobility of the settlement pattern in Phases 1 and 2. The widely spread cooking pits were probably associated with animal herding, while at the same time cooking pits were also found in association with the built environment. A similar, semi-mobile settlement pattern can be found throughout Scandinavia and Northern Europe during the pre-Roman Iron Age. At Vik, however, a more fixed farmstead already existed around 200 BC, when, in Field B, new buildings were erected close to and over earlier building sites (last part of Phase 2). This indicates that central Norway did not lag behind the southern parts of Scandinavia regarding the first transition towards a more fixed settlement pattern in the last few centuries before Christ. A new transition occurred at Vik around the time of the birth of Christ, when three fixed farmsteads were established in Fields A, C and D, constituting Phase 3. These farmsteads were even more accentuated than the Phase 2 farmstead in Field B. The Phase 3 farmsteads lasted for c. 4 centuries. Extensive remains of these buildings have survived, as have waste deposits. The longhouses in Fields C and D in the first parts of Phase 3 had enlarged central rooms, while in the last part of Phase 3, a separate hall building was erected in both Field C and Field D. The enlarged room is a common trait in early Roman Age buildings in Norway and southern Scandinavia. The later, separate hall building does also seem to represent a common trait, and has been found in south Scandinavia, the Mälaren valley, as well as in Forsand.

Following a steady decline in the Migration period, with only one new building being built (Phase 4), an abrupt decline in settlement at Vik occurred in the last part of the Migration period and the first part of the Merovingian period (Phase 5). This abrupt decline occurring around AD 550 can

most likely be connected to the *Late Antique Little Ice Age*. The decline was followed by an absence of activity during the Merovingian and Early Viking periods. When settlement was re-established in the late Viking Age, only one farmstead was established, in Field E (Phase 6). The three-aisled longhouse, which dominated the previous settlement, was not present in this farmstead. Instead, functions were divided between a two-aisled longhouse and a small group of buildings. There is no evidence supposing that the establishment of this farmstead formed the beginning of a historically known farm. On the contrary, there are several reasons for attributing it to a low social status. First, it was erected in an area where there had previously been settlement throughout the Early Iron Age. Second, the farmstead was abandoned by c. AD 1250. This was not the beginnings of a historical farm that was to survive and play a major local role. All in all, the Field E farmstead leaves the impression of a farmstead belonging to the lower social stratum. Perhaps it was subject to the neighboring high status farmstead at Viklem? It is possible that we have found evidence here in Field E of the lower strata of a class-divided society.

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