

Christina Vibeke Oftedal

Hillforts in Rogaland

Hillfort Functions in Northern Jæren during the Roman Iron Age and Migration Period

Bachelor's project in Archaeology

Supervisor: Ingrid Ystgaard

April 2021



Ytraberg hillfort in 2021. Photo: Christina Oftedal

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Faculty of Humanities
Department of Historical Studies

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Christina Vibeke Oftedal, April 2021

Table of Contents

1 INTRODUCTION	4
2 BACKGROUND	5
2.1 PREHISTORIC CONTEXT	5
2.2 RESEARCH HISTORY	6
2.2.1 Registering and Defining Hillforts (1700–1900s)	6
2.2.2 Hillforts as Military Structures (1900–1950s)	6
2.2.3 Organized Networks and Power Centers (1950–1990)	7
2.2.4 Multifunctionality (1990s–present).....	7
3 DEFINITIONS AND CRITERIA	7
3.1 DEFINITIONS	7
3.2 CRITERIA	8
4 METHODOLOGY	9
4.1 FIELD INSPECTION.....	9
4.2 MAPPING AND LANDSCAPE ANALYSIS	9
5 RESULTS	9
5.1 ÅSLANDSNUT	11
5.2 JÄTTÅNUT	12
5.3 MYKLEBERG	13
5.4 RAGNENUT.....	14
5.5 YTRABERG	15
6 DISCUSSION	16
6.1 MILITARY FUNCTION.....	16
6.1.1 Accessibility and View	16
6.1.2 Proximity to other Hillforts.....	16
6.1.3 Water and Land Routes.....	17
6.1.4 Power Centers	19
6.1.5 Wall Typology.....	20
6.1.6 Iron Age Cultural Environment.....	21
6.1.7 Modern Military Activity.....	21
6.2 MULTIFUNCTIONALITY	22
7 CONCLUSION	23
BIBLIOGRAPHY	24

List of Figures

Figure 1: The green triangles indicate registered hillforts in Rogaland county. Scale: 1:1.280.000. From Askeladden.	10
Figure 2: Mapping of the studied hillforts, created on Norgeskart.....	10
Figure 3: Åslandnut hillfort with geometric data from Askeladden. Scale: 1:5000.....	11
Figure 4: To the left is the height of Åslandsnut, while the right is Ragnenut's height. As shown, there are several mountains that disturb Åslandsnut's visibility of Ragnenut. They are just a few meters shorter than Ragnenut. From: Høydedata.no.....	11
Figure 5: Mykleberg hillfort with geometric data from Askeladden. To the right is the NATO military facility. Scale: 1:2500.	12
Figure 6: Mykleberg hillfort with geometric data from Askeladden. Scale: 1:2500.	13
Figure 7: To the left of the height profile represents Mykleberg's height in meters. The right shows Ytraberg's height. There are no disturbances in between that hinder Mykleberg's view of Ytraberg.	13
Figure 8: Ragnenut hillfort marked in pink. The red areas are other registered Iron Age structures and the green shows the protected area. From: Askeladden.....	14
Figure 9: The Ytraberg hillfort, from Grimm (2011: 30).....	15
Figure 10: Hillfort locations in relation to water and land routes. The blue are possible land routes, the black are possible water routes. The red triangles are the studied hillforts. The black triangles are other hillforts in the area. The background map is from Kartverket.	18
Figure 11: A map of the five studied hillforts in relation to possible Iron Age power centers. This is based on Reiersen's map (2017:221). The background map is from Kartverket.	19
Figure 12: Ytraberg's wall, a 114cm walking stick is placed in front of the rocks. Photo: Christina Oftedal.....	20
Figure 13: German WWII bunker at Mykleberg. Photo: Christina Oftedal.	22

1 Introduction

This bachelor thesis investigates a seldom researched topic in Norway, which is the topic of hillforts. Hillforts are found in Northern Europe, Continental Europe and the British Isles. Typically, a hillfort is characterized by a wall(s) placed on steeply elevated topography. The wall(s) is usually placed on the most gradual, accessible slope of a hill or mountain and it tends to follow the topography. Because of the acclivity, hillforts commonly provide a panoramic view of the surrounding area. Additionally, hillforts are either located near known prehistoric settlements, peripherally to these settlements, or in remote areas.

Hillforts have been a topic of interest among archaeologists and local historians. Their large, long walls and their placement on steep mountains have been romanticized as expressions of local strength and wealth (Haraldsen 1982: 4). However, hillforts have gained less traction in archaeological research compared to other prehistoric structures and artifacts in Norway (Bang-Andersen 2018b: 29).

One of the main factors is that there is a lack of financial sources for research excavations. Norway's Cultural Heritage Act ensures for the financing of excavations tied to development projects (Kulturminneloven 1978: §10). Since most hillforts are located in areas outside of development projects, they are not regarded as prioritized areas for excavation.

The scarcity of archaeological finds and the difficulty of dating hillforts have also been a hinderance for hillfort research. In 1972, Arnvid Lillehammer estimated that merely 1-2% of hillforts in Norway were dated (Lillehammer 1972: 40). Since then, an additional 150 forts have been registered, and only a handful have been dated.

The lack of archaeological research has provided little knowledge of the exact function of Norway's hillforts (Bang-Andersen 2018a: 21; Bang-Andersen 2018b: 27-29; Haraldsen 1980: 4; Myhre 1982). In Rogaland, most hillforts have only been registered and surveyed (Ross 1886; Salveson 1927). Some have also been mentioned in village books and journal articles (Bang-Andersen 2018b: 27). However, few have written about the function of Rogaland's hillfort since Bjørn Myhre's study of power centers (1987).

Within the past few years, there have been a few dissertations written about Rogaland and Hordaland's hillforts (Bang-Andersen 2018b: 28; Lie 2000; Reiersen 2017). However, most of these dissertations focus on the hillforts in Northern Rogaland. To this day, there are no papers that discuss the function of hillforts in Northern Jæren. With this in mind, the research question for this paper is:

What was the function of hillforts in Northern Jæren during the Roman Iron Age and Migration Period?

The aim of this thesis is to understand how hillforts functioned in Northern Jæren's early Iron Age society. This will be accomplished in the following manner. This paper will open with a background on the prehistoric context of Norway's Iron Age, followed by an outline of hillfort research history. The research questions will be investigated based on the author's definition of a Norwegian hillfort. Criteria will be utilized to guide the analysis and discussion. The author's methodology will be summarized.

For the results, a description of all the hillforts will be included, along with findings from field inspections and landscape analysis. The discussion will focus on the

hillforts' military functions. The discussion will conclude with an examination of the possibility of hillforts possessing multiple functions.

This thesis will analyze five hillforts in Northern Jæren, namely Åslandsnut, Jåttånut, Mykleberg, Ragnenut (colloquially: Ragnhildsnut), and Ytraberg. These hillforts have been chosen because they are concentrated in an area called Northern Jæren. This area has a rich cultural context stemming from the early Iron Age. Concentrating research in a local context provides a clearer understanding of how hillforts functioned in a specific area.

These hillforts were chosen for this thesis because of the knowledge gap and archaeological potential. They have been registered, however only a few have been inspected and only three have GPS measurements of their walls. There have been no excavations, and no dissertations on the function of these five hillforts.

Due to time and limited word count, not all hillforts in the Northern Jæren area were included. The Jæren hillforts that were not researched in this paper were: Ulsberg, Storaberg, Bergjet, Risnes, Borghammaren, Uskjeklubben, Helleberg, Borgerberg, and Borgåsen. Out of curiosity, and to grasp a holistic understanding of hillforts in the study area, additional hillforts were inspected: Ulsberg, Helleberg, and Borgaråsen. These hillforts will not be thoroughly analyzed in this paper, however they will be mentioned.

2 Background

2.1 Prehistoric Context

The Roman Iron Age is dated from 1–400 AD and is characterized as an archaeologically rich period. Longhouses increased in size, burial mounds were both large and small, and graves were rich (Løkken 1988: 14; Solberg 2003: 77-78). There was also an influx of Roman import goods, such as glass, ladles, Bronze vessels, glass beads, and coins (Solberg 2003: 78-81). This period is characterized by its development of a social hierarchy. This is based on the period's differences of grave size, grave goods, settlement size, farming opportunities, and banquet halls (Løken 2001; Torp 2020).

The Migration Period lasted a short period of time, from 400–550 AD, and it is distinguished by its mass migrations on the European continent (Solberg 2003: 124). In Norway, farm settlements were similar to the previous period (Solberg 2003: 129). There were also many graves with large regional differences (Solberg 2003: 135). The period concluded with a decline in settlement and grave finds, coinciding with a climatic decline and the Justinian plague, probably connected to volcanic eruptions in 536, 540, and 547 AD (Büntgen et al. 2016: 231).

Southwestern Norway was a powerful area. During these two periods, there was a strong population growth, settlement expansion, and technological, economical, and cultural development. Jæren is located in Southwestern Norway, in Rogaland county, and stretches from northern Randaberg to the bottom of Hå commune. Jæren is an unusually wide, flat area that lies peripherally to the mountainous areas of Rogaland. This area has been utilized by farmers for centuries because of its rich, fertile land.

Archaeological evidence indicates that Jæren was a rich area occupied by elite members. In Jæren, there are high concentrations of burial mounds, weapon graves, brooches, gold, bathhouses, and large longhouses (Reiersen 2017). Normal farms in Jæren were 30m long, with some reaching as long as 60m. This area was powerful during the Iron Age, and it was most likely turbulent and at risk of conflict.

2.2 Research History

2.2.1 Registering and Defining Hillforts (1700–1900s)

One of the earliest known registrations of hillforts in Norway was made by Bendix de Fine in 1745. Fine was an official and a topographical author who registered the cultural heritage of Stavanger in his book *Stavanger Amptes udførlige Beskrivelse*. At the time, hillforts were not a defined cultural heritage category. Instead, Fine wrote descriptions of what he thought were fortified ramparts, but are today known as hillforts (Fine 1745: 220; Haraldsen 1980: 18).

Oluf Rygh was the first archaeologist to define a hillfort, or *bygdeborg*, in terms of Norwegian archaeology (Hyttebakk 2017: 5). *Bygde* means “settled landscape” or “settled local region”, while *borg* translates as fort or castle. At the time, many hillforts were found in locations near presumably contemporary settlements. Based on this evidence, Rygh interpreted hillforts as a place of refuge for a settlement to utilize in tumultuous times. He wrote:

“Alle Omstændigheter føre saaledes til den Slutning, hvortil ogsaa flere tidligere Iakttagere ere komne: at dette Slags Borge ere anlagte af Bygdens egen Befolkning for at have et Tilflugtssted under plutseligt og overmægtigt fiendtligt Overfald. Dermed stemmer det godt, at saa mange ere anlagte i en Udkant af Bygden eller endog et Stykke oppe i Vildmarken” (Rygh 1883: 77)

Rygh’s report on hillforts sparked research in the archaeology community. The research consisted of descriptive registrations and surveys that dated the hillforts in the Migration Period. Most of the research methodology was based off of Immanuel Ross’s surveys of hillforts in the districts of Sunnhordland and Rogaland from 1883. His research became a model for surveying hillforts in Norway (Haraldsen 1980: 18). In fact, Ross (1886) was one of the first archaeologists to excavate a hillfort in Norway. Today, Ross’s registrations and archaeological work have been important sources for hillfort research in Norway (Bull, Krogvig and Gran 1952: 600).

2.2.2 Hillforts as Military Structures (1900–1950s)

In the 1900s, researchers believed that hillforts were used as military structures during the Migration Period. Because of the period placement, scholars believed hillforts were introduced by a diffusion of Roman military culture. Because of hillforts’ connection to the military, archaeologists regarded the “bygdeborg” definition as insufficient (Shetelig 1925).

Haakon Shetelig was skeptical of Rygh’s “bygdeborg” definition; the term was too strongly affiliated to settlements. In the book *Norges Forhistorie*, Shetelig argued that some hillforts were not located near settlements, so he believed the term “bygdeborg” did not suffice. Shetelig suggested to use the neutral term “borg” (1925: 171). Shetelig is also known for his research on hillforts’ military characteristics. He analyzed hillforts’ locations along prehistoric routes, and discussed their possible role in military surveillance and route control (Hyttebakk 2017: 5–6).

Arne Salveson (1927) wrote a report about Rogaland’s hillforts. Salveson was one of the first to understand the importance of analyzing hillfort locations and tying the hillforts to local history. His research also argued for hillforts’ military and social functions. In particular, he analyzed the hillforts’ role as a defense facility against intruders (Haraldsen 1980: 19).

During this time, a majority of scholars did not question the hillforts’ role as military structures. However, the Swedish ethnographer, Sten Anjou (1935), was skeptical. He believed that there were two types of hillforts in Sweden. The first type had an obvious military function, while the second type was less defensive. This second type

had the characteristics of a relatively permanent settlement. These hillforts tended to have thicker cultural layers, were found in large concentrations around settlements, and were found in conjunction with commonplace household items.

2.2.3 Organized Networks and Power Centers (1950–1990)

In the 1950s, there was a consensus that hillforts were parts of military defense systems. Researchers theorized that hillforts had a connection with settlement establishments and larger, organized military networks. This processual perspective placed focus on settlements' eco-functional needs during the turbulent early Iron Age. Researchers believed that there was a distinction between different social classes, which may have led to the formation of centers. People believed that there may have been society organization before the official establishment of the Middle Age's regional states.

Bjørn Myhre (1987) wrote an influential paper about power centers in Southwestern Norway. He analyzed the distribution of hillforts and archaeologically rich graves. Based on these distributions, he mapped possible power centers in the region. Myhre's distribution map of hillforts corresponded with areas containing the richest grave finds (1987: 182). This evidence supported his theory of pre-established regional centers. It also supports the theory of hillforts' role in regional military systems.

2.2.4 Multifunctionality (1990s–present)

Today, researchers continue to focus on the military aspects of hillforts. Ingrid Ystgaard has specialized in hillfort research in Trøndelag. In her papers (1998; 2003; 2014), she has redefined the site category, proposed typologies for hillfort walls, written about hillforts' involvement in societal and power relations in the early Iron Age, and focused on the function of hillforts in conjunction with military practice in Trøndelag.

Archaeologists also acknowledge hillfort heterogeneity and their multidimensional role in prehistoric society. Michael Olausson (2008; 2009) distinguished hillforts that were utilized as authentic fortifications, and hilltop settlements, which represented the elite's economic wealth. Hilltop settlements were, in essence, defensible farms that were placed in elevated terrain and encircled by low walls. These sites united defense together with home, handcraft, trade, economy, and status (2009: 38).

Trygve Bernt (2012) took a critical stance of the traditional interpretation of hillforts' function as a village's place of refuge. After analyzing four hillforts, he deduced that they were inapt for these functions. He proposed that the hillforts added value to the aristocracy's trade in Øvre Eiker during the early Iron Age. These hillforts most likely stimulated trade and boosted the local economy. Bernt concluded that these hillforts were multifunctional.

3 Definitions and Criteria

3.1 Definitions

Hillfort, hill fort, and hill-fort are used interchangeably in archaeology. In English, the term *hillfort* is defined as a "fort built on a hill, in particular an area on a hilltop enclosed by a system of defensive banks and ditches" (Lexico 2021). In essence, a hillfort is defined as a military facility.

Bygdeborg is a term that is well-established in Norwegian archaeology. It is a defined category used by the Norwegian Directorate of Cultural Heritage, in official cultural heritage search engines, and in literature (Bernt 2012: 3). Scholars, such as

Shetelig (1925), Ystgaard (1998), and Olausson (2009) have used more neutral terms, such as fort, wall embankment, and fortification, to name the category. However, these terms have been sparsely used in literature and in practice. Therefore, the English term *hillfort* will be used as a translation.

In this paper, a *Norwegian hillfort* is defined with the followed characteristics: a wall(s) is placed on an elevated site; wall placement is on the most accessible side of a slope; a wall(s) is made of rocks, earth, and/or wood; it is single or double-walled; there is a view of the surrounding area; and it is dated to a prehistoric time period.

Military function is defined as a defense against any external threats. This includes all operations and regulations that are set to prevent an attack. Military operations may include surveillance, area and resource control, route regulations, guarding, combat strategies, and communication. *Multifunctionality* is defined as possessing or performing more than one function. These functions will be discussed in this paper.

Iron Age fluidity is defined as a mobile or fluctuating categorization of Iron Age social constructs. Social constructs, such as religion, military, or politics, may have not been distinctly separate from one another.

3.2 Criteria

Hillforts are difficult to analyze because their variations, dating difficulties, and their involvement in prehistoric social constructs. To aid in analyzing the hillforts, a list of criteria has been selected. The criteria has been adopted and inspired by previous research about hillfort function. Having criteria to follow may aid in interpreting and categorizing the hillforts, however it is recognized that each hillfort is different and requires an individual description and interpretation. The criteria are:

- Location
 - o Accessibility and view
 - o Proximity to centers or peripheral territories
 - o Proximity to other hillforts
 - o Proximity to land and/or sea routes
- Wall
 - o Typology
- Cultural environment
 - o Iron Age
 - o Modern

The criteria provides a foundational basis for the analysis and discussion of hillfort function. A hillforts' view may provide evidence for communication, strategy, surveillance, and/or area control. Proximity to an Iron Age center may provide evidence of a hillforts' service to the area. Hillforts near other hillforts may suggest a system for communication. Also, hillforts near routes may indicate a hillfort's accessibility or its control of an area.

Wall typology may reveal the intent behind constructing a hillfort. The length, height, and shape are characteristics that may suggest a level of defense. Also, rock size may provide evidence for the size of manpower. Wall construction may reveal a hillforts' intended duration, whether it was built for long or short term use.

Lastly, nearby Iron Age structures and artifacts provide a historical context. Connecting hillforts to the Iron Age cultural environment provides the context needed to

interpret these structures. Additionally, modern activity near hillfort locations, may provide a phenomenological understanding of hillfort function.

4 Methodology

4.1 Field Inspection

One method that was applied was field inspection. A registration form was used while conducting these field inspections. The form included the following: hillfort name, Askeladden-ID, county and city, orientation, terrain, description, and pictures. The description included visual analysis, wall type and shape, nearby observable artifacts and/or structures, nearby water sources, and any other observations.

This method provided a verification of the information registered on the archaeology database *Askeladden*. Some information on the database was unclear, incomplete, and/or did not fully answer to the criteria in this paper. During the field inspection, the hillforts were observed with the listed criteria in mind, though additional observations were also noted.

This method provided factual information about the hillfort location and wall(s), however applying this method phenomenologically granted a holistic understanding of these hillforts. Observations by sense, such as sight, feel, and sound provided insightful information. For example the sounds of area, the view, and the feeling of the wind all gave information of what it may have been like manning the hillforts.

4.2 Mapping and Landscape Analysis

A second method used was mapping and landscape analysis. *Askeladden* was used to map hillfort location, measure distance between hillforts, and note registered Iron Age artifacts and/or structures near hillforts. Both geometric data on *Askeladden* and plan drawings in literature were used to locate each hillfort. This data was valuable because during field inspections, the hillforts were oftentimes difficult to locate. Additionally, *Askeladden* provided geometric data on some wall structures. The mapping features also aided in the understanding of the geography.

The websites *Høydedata* and *Norgeskart* were used to conduct a terrain analysis of each hillfort. *Norgeskart* incorporated satellite images and contour lines in its maps. This provided information of mountains, brush, and water in the area. *Høydedata* was utilized to analyze hillfort visibility based on an area's terrain. *Høydedata* had a feature where the user can observe the height difference between two or multiple points on a map. This was essential for hillfort view analysis, because the views during field inspections were interfered by foliage.

5 Results

The five studied hillforts have been mapped using *Norgeskart*. This is to provide the reader with an understanding of the hillforts' placements within the region. An additional map of all registered hillforts in Rogaland has been provided. Currently, this map is missing one hillfort, which is the Storaberg hillfort in Sandnes commune.

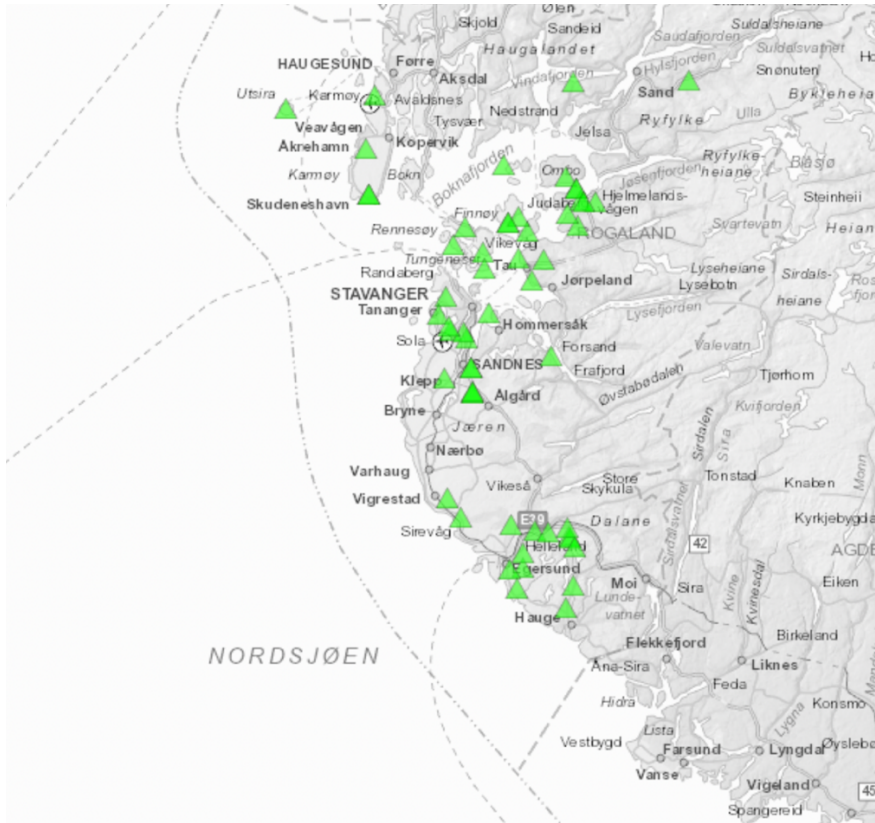


Figure 1: The green triangles indicate registered hillforts in Rogaland county. Scale: 1:1.280.000. From Askeladden.

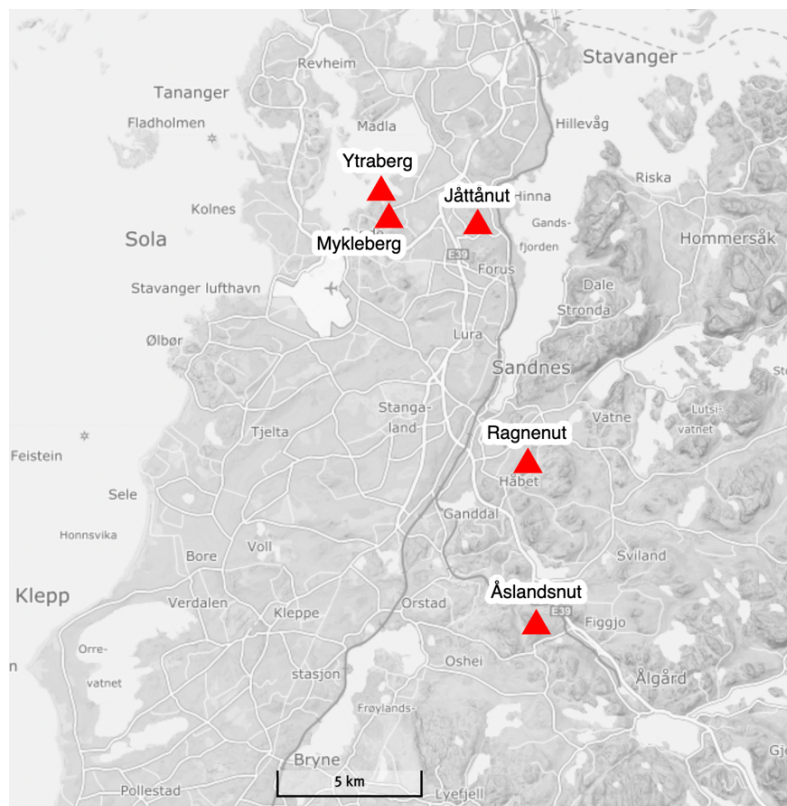


Figure 2: Mapping of the studied hillforts, created on Norgeskart.

5.1 Åslandsnut

Askeladden-ID: 26148-1

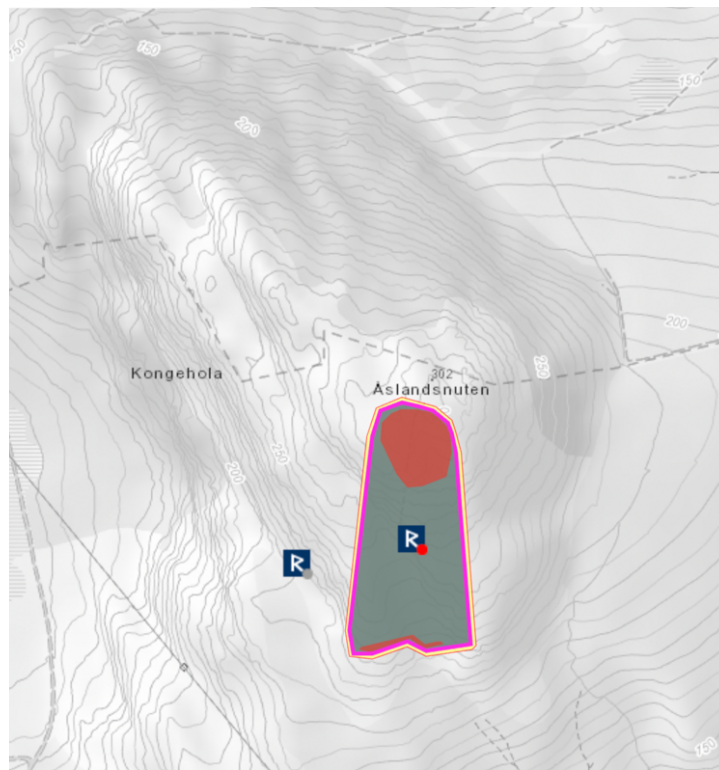


Figure 3: Åslandsnut hillfort with geometric data from Askeladden. Scale: 1:5000.

This is the southernmost hillfort of the five, located in Time commune. The hillfort is located on a large mountain not too far from the Figgjo river. The mountain is steep on all sides, though the southern side is the least steep. At the summit, there is a view of the mountains to the north and east. To the west, one can see the ocean. Farmland is also visible on all sides. This hillfort is far from other hillforts. The closest hillfort is Ragnenut at 5.5km, other near hillforts are Helleberg (7.6km), Ulsberg (12.3km), and Jåttånut (13.9km). These mountains are visible, though Ragnenut is barely visible. At the highest point and at the right angle, Ragnenut was visible, according to the height profile. All vegetation would have had to be removed to provide visibility.

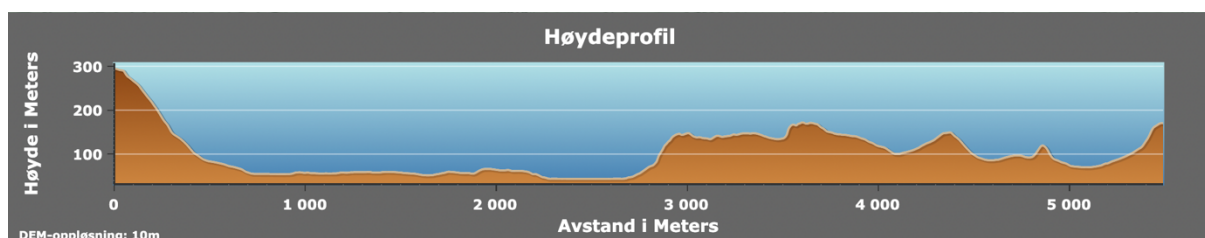


Figure 4: To the left is the height of Åslandsnut, while the right is Ragnenut's height. As shown, there are several mountains that disturb Åslandsnut's visibility of Ragnenut. They are just a few meters shorter than Ragnenut. From: Høydedata.no.

At the top of the mountain, there are two registered walls, one to the south and one to the north. The area within these walls is measured to be as large as 4197m². There is little vegetation on the mountain. At the top, there is a flat space providing views in all directions. Of the two registered walls, there is one inner wall and one outer

wall. During the field inspection, only the outer wall was found. The latter was not found due to snow. The outer wall was around 80m and about 1m tall and 2m wide.

According to *Askeladden*, this wall had two shooting positions, most likely created by the Germans in WWII. These shooting positions were not found, also due to snow. During inspection, a stone staircase was found on the mountain's southern side. This staircase was built by the Germans. Within 1km of the hillfort, there were three farms, three burial mounds, and three cemeteries dated to the Iron Age. One farm was large with 505 registered structures.

5.2 Jåttånut

Askeladden-ID: 65806-1

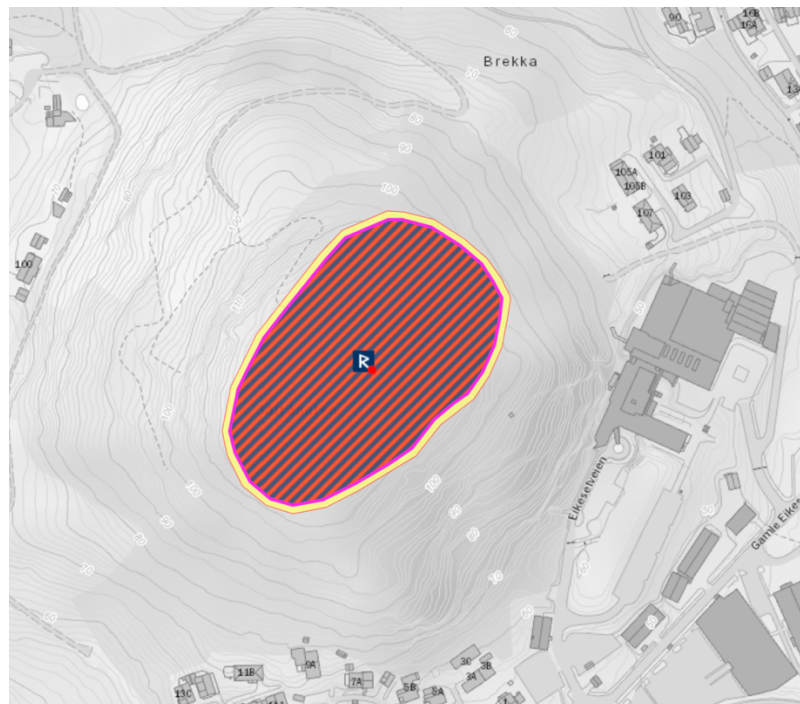


Figure 5: Mykleberg hillfort with geometric data from *Askeladden*. To the right is the NATO military facility. Scale: 1:2500.

Jåttånut is a large, steep mountain located 900m from the Gandsfjord fjord. It is inaccessible from the southeastern and northeastern sides. There is dense vegetation, however if this was removed, one would have a view of Gandsfjord, Hafrsfjord, Ullandhaug, and southern Stavanger. There are three hillforts that are visible from Jåttånut: Ulsberg (1.7km), Myklaberg (3.2km), and Ytraberg (3.6km). The total area within the hillfort is estimated to be 19.084m². Some nearby artifacts include four settlements, eight graves, and one graveyard. One grave contained ceramic pottery from the Roman Iron Age.

The hillfort was not found in the inspection. Currently, there is a NATO military base to the east of the mountain. The military base has gates that circulate the summit and the mountain's northeastern side. It was not permitted to walk within 100m of this gate, so the area of accessible land was limited during the inspection. It may be possible that the hillfort is located within the military gates, or has been disrupted by recent military activity.

A description written by Helliesen in 1900 is available on *Askeladden*. He wrote that the walls were along the mountain's northwestern and southwestern side. He noted

a large rock pile caused by rocks tumbling from the walls. Helliesen also wrote that there was a square 6m x 5m depression within the southwestern wall, which may have been used as a water tank.

5.3 Mykleberg

Askeladden-ID: 44569-1

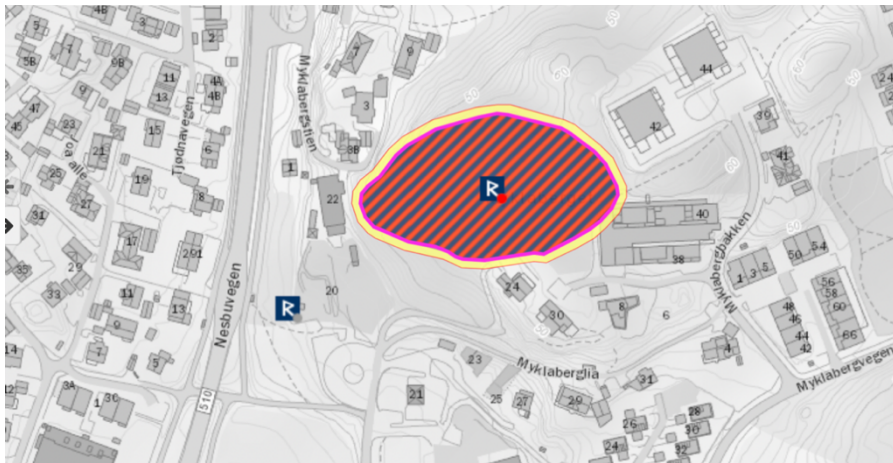


Figure 6: Mykleberg hillfort with geometric data from Askeladden. Scale: 1:2500.

Mykleberg is located near Hafrsfjord in Sola commune. The hill is small with dense vegetation and steep slopes. The hill's top is shaped as a plateau. There are two paths to access the hilltop, one from the southwest and one from the northeast. The former side is broadly sloped, while the latter side contained a German staircase built in WWII. From the top of the hill, there is a view of flat terrain to the northeast, mountains to the south, and Gandsfjord to the east. The hillfort is close to four hillforts: Ytraberg (1km), Jåttånut (3.2km), Ulsberg (4km), and Bergjet (4.5km). All are visible from Mykleberg.

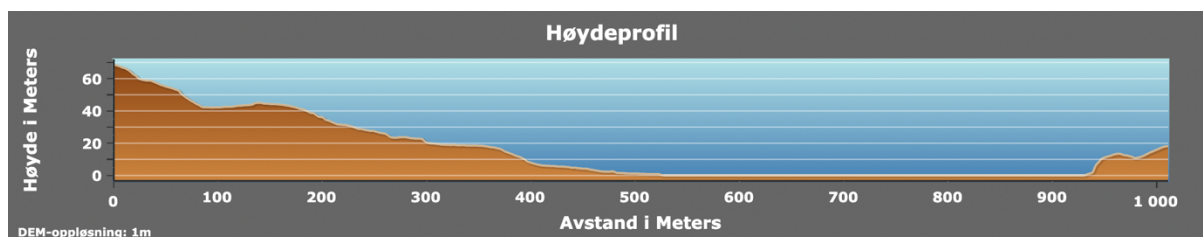


Figure 7: To the left of the height profile represents Mykleberg's height in meters. The right shows Ytraberg's height. There are no disturbances in between that hinder Mykleberg's view of Ytraberg.

To the southwest, a wall was found under the hill's plateau. The wall was around 0.5m tall and 1m wide. Because of dense vegetation, it was difficult to assess the wall's length. The rocks were medium and rectangular. The area within the walls was 7765m². According to *Askeladden*, there was a swamp to the west that may have provided water, though this area was not found during the inspection.

A German WWII bunker was found on the plateau's northeastern side along with a staircase. There are 11 registered graves nearby, where one burial mound was found just 100m from the hill. This mound contained a gold bracteate. Other nearby graves were dug out and used as canon positions by the Germans in WWII.

5.4 Ragnenut

Askeladden-ID: 24781-17

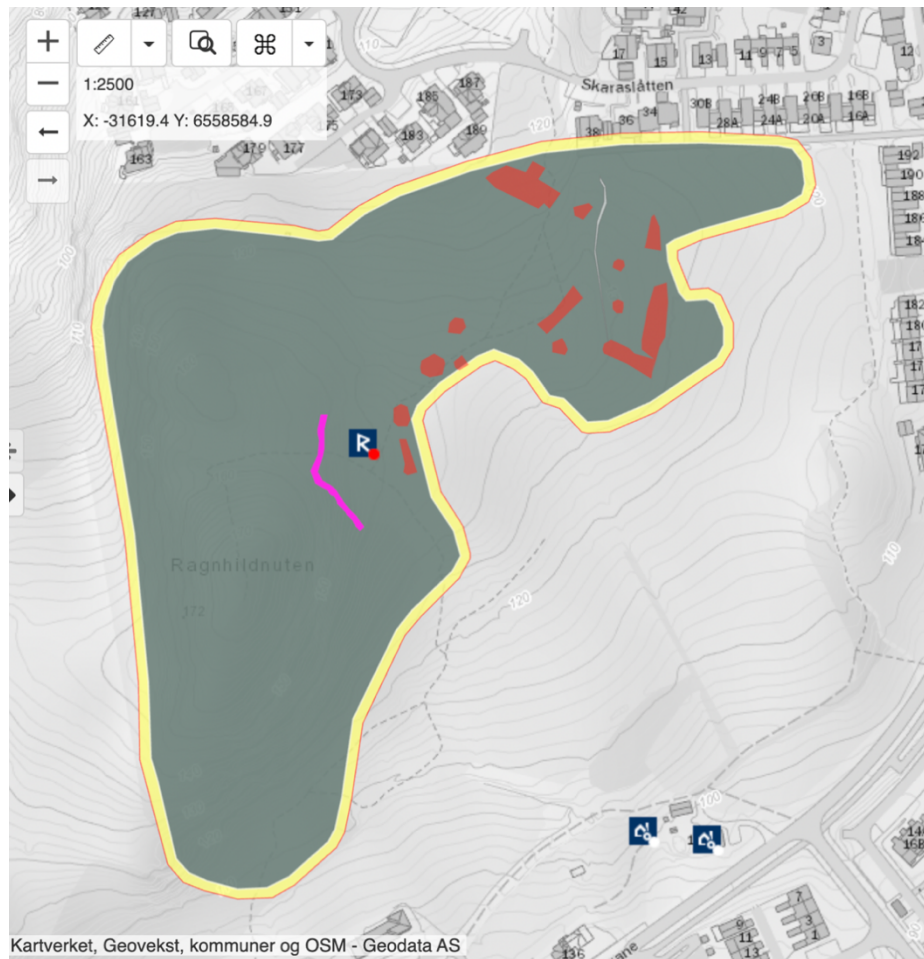


Figure 8: Ragnenut hillfort marked in pink. The red areas are other registered Iron Age structures and the green shows the protected area. From: Askeladden.

Ragnenut is located in Sandnes commune between Gandsfjord, Lutsivatnet lake, and Ganddal. It is surrounded by hilly terrain and farmland. Ragnenut is located on a small hill with two peaks. Between these two peaks is a large flat area with swampy terrain. All sides of the mountain are inaccessible except the eastern side. From Ragnenut, one can see Sandnes, Jæren, Stavanger, and the coast. The eastern side is blocked by Vedafjell mountain. Ragnenut's closest hillforts are: Åslandsnut (5.5km), Helleberg (6.9km), Ulsberg (6.9km), and Storaberg (8.3km). These mountains are visible from Ragnenut.

The hillfort is located on the mountain's east side. The wall is about 2m wide, 0.5m tall, and 60m long. Only around 10m of the wall is in good condition. Below the wall, there is a large pile of tumbled rocks that may stem from the wall. The wall consists of small to medium sized rocks that are slightly rounded. The total area within the walls is around 11.000m².

There is a settlement only 50m from the hillfort. This settlement has been dated to the Iron Age and it contains five house foundations, seven burial mounds, a grave cairn, and a possible oven. One burial mound lays at the foot of the hill. Within a 1km area, there have been found three settlements C14-dated to the early Iron Age, three

graves, three graveyards, six clearing piles, and two cooking pits. There is also a possible WWII shooting position on a mountain 940m from Ragnenut.

5.5 Ytraberg

Askeladden-ID: 65861



Figure 9: The Ytraberg hillfort, from Grimm (2011: 30).

Ytraberg hillfort, in Sola commune, is located on a peninsula that protrudes into Hafrsfjord. There is a large, flat area that connects the top of the peninsula to the mainland. The top of the peninsula is elevated and steep on all sides. The eastern side is the least steep and it is accessible from the mainland. The peninsula provides a view of the whole fjord. Ytraberg is close to Mykleberg hillfort (1km), but also to Jåttånut (3.6km) and Bergjet (3.7km). All these mountains are visible.

The hillfort has three walls. One wall is to the south and another to the east. There is also a wall facing the fjord, running from north to south. There is a small opening in the wall that leads to a path down to the sea. This wall is around 50m long. All walls are made of very large rocks. The walls were around 1m wide and 1-2m tall. The total area within the walls is around 3.800m².

Within the walls, there have been registered three house foundations and a stone monument. Nearby, there were seven graves and one graveyard. Other artifacts include a Roman silver coin dated to 118 AD and a buckle typologically dated to the Roman Iron Age. On an island 750m from Ytraberg there are seven German bunkers.

6 Discussion

The research question for this paper is, what was the function of hillforts in Northern Jæren during the early Iron Age. The five studied hillforts have been indirectly dated to the early Iron Age by their cultural environment and typology. They have been dated contextually, based on the present understanding of hillfort types and their functions in prehistoric society. It is difficult to prove that these hillforts were contemporary, or used during the Roman Iron Age and Migration Period. The dating is a potential source of error that may negatively affect interpretation.

6.1 Military Function

For over a century, hillforts have been interpreted as a place of refuge and defense during the unsettling times of the early Iron Age. Today, hillforts are defined as military facilities. Typically, hillfort military function is evaluated based on accessibility and proximity to routes, other hillforts, and local centers. Other areas that provide information about a hillfort's function is the wall type and the cultural environment. All these topics will be discussed.

6.1.1 Accessibility and View

All hillforts in this study are difficult to access. Most have only one to two paths that access the hilltops. Åslandsnut and Jåttånut are similar based on their accessibility. Both are large, steep mountains that require over half an hour of hiking, which is the longest duration out of all the studied hillfort. Mykleberg and Ragnenut's elevation resembles more of a large hill rather than a mountain. Both take less than 10 min to summit. Since Ytraberg lays on a peninsula, it takes longer to access the hillfort from land than from the sea. At an elevation of only 19m, the hilltop takes only a few minutes to access from the sea.

The five hillforts are placed in areas with strategic views of the surrounding area. Based on field inspection, Åslandsnut and Ragnenut had the most clarity, most likely because of limited vegetation and elevation. Mykleberg and Jåttånut were densely foliated, so it was difficult to observe the visibility. Ytraberg was visible in all directions, however its low elevation limited the length of visibility.

All hillforts had views of farmland, mountains, and the west coastline. Fjords, such as Gandsfjord and Hafrsfjord were visible from all hillforts, except from Åslandsnut. Central areas, such as southern Stavanger, Sandnes, and Time were also visible. Each hillfort had a view of three or four other hillfort locations. Ulsberg and Jåttånut were seen from almost all the researched hillforts.

Hillforts' advantage over view and accessibility may have aided in military functions. All of these hillforts are placed in areas with only one or two accessible paths. Because of the limited accessibility, it may have been difficult for an opponent to attack the area. Height and steep terrain emphasize a hillforts' defense opportunities. All hillforts had a view of the surrounding area. The view may have aided in military communication, strategy, and surveillance.

6.1.2 Proximity to other Hillforts

Of the studied hillforts, most are in near proximity of one another. Ytraberg and Mykleberg are the closest hillforts, at only 1km apart. They are also not far from other hillforts, such as Jåttånut, Ulsberg, and Bergjet. Jåttånut lies centrally to other hillforts in the area and is only 2km from Ulsberg. Ragnenut has fewer nearby hillforts, where the

closest is Åslandsnut at around 5km away. Other hillforts such as Helleberg, Ulsberg and Storaberg are over 7km from Ragnenut. Åslandsnut is the most isolated hillfort of the five. It is 5km from Ragnenut, over 7km from Helleberg, and over 12 km from other hillforts.

Hillforts that are in close proximity to one another, such as Ytraberg, Mykleberg, Jåttånut, and Ulsberg may be an indication of an organized military system. Military units that manned these hillforts would have had an advantage of collaboration. This collaboration would have provided an advantage over battles, route control, taxation, and communication.

The close proximity may also be a cause of high conflict in the area. It may be that the manned hillforts did not collaborate with one another, but instead were opponents. Also, it is uncertain whether these hillforts were contemporary or not. Based on the hillforts' characteristics and typology, it is likely that they date around the early Iron Age, however, these hillforts could have been manned decades or centuries apart.

6.1.3 Water and Land Routes

The hillforts are located along possible prehistoric routes. In this paper, there was an attempt to locate possible Iron Age land and water routes. This was difficult because there was no literature about routes in Jæren; the only literature of routes in Rogaland was of ocean routes in Northern Rogaland (Elvestad and Tveit 2006; Reiersen 2017). Figure 10 is a map of possible Iron Age routes.

To the north, two roads called Tjodveien and Sundeveien have been excavated and dated to the Iron Age (H. Reiersen, personal communication, February 8, 2021). Kongeveien is outlined in blue to the southwest. It is an old road that goes through central areas in Southern Rogaland (Reiersen 2017: 224). Flat areas between centers were most likely utilized for land transportation. Some of these areas include from Gandsfjord to Ganddal, Sandnes to Stavanger, Hafrsfjord to Ullandhaug, Lutsivatnet to Riska, and Lutsivatnet to Frøylandsvatnet.

Hafrsfjord, which is south of Tjodveien and Sundeveien, was utilized based on its concentration of boathouses (Grimm 2011). The fjord provides safer sailing conditions than the western coast, and it leads to settled areas in Northern Jæren. Gandsfjord was also a natural fjord to sail in because of its reach inland.

Rivers and lakes were important modes of transportation, especially for reaching inland areas. The Figgjo river may have been used to sail from Bråstein to Sele, where it pours into the Norwegian Sea. However this river is quite narrow. Instead of sailing along Gandsfjord, Lutsivatnet lake may have been an alternative route to reach Riska. Ganddal's Stokkelandsvatnet may have been used for both fishing and traveling. Frøylandsvatnet's connections to multiple sagas and the concentration of Iron Age structures near the lake suggests that this water could have been a mode of transport in the early Iron Age (Lillehammer 2014: 30-32).

Ytraberg, Mykleberg, and Jåttånut are all located within 1km from the nearest fjord. They are also near the natural harbors of Sørnesvågen and Boganesvika. Other hillforts such as Ulsberg and Bergjet are also placed along the fjords. These hillforts are near a road that stretches from Southern Stavanger to Kongeveien.

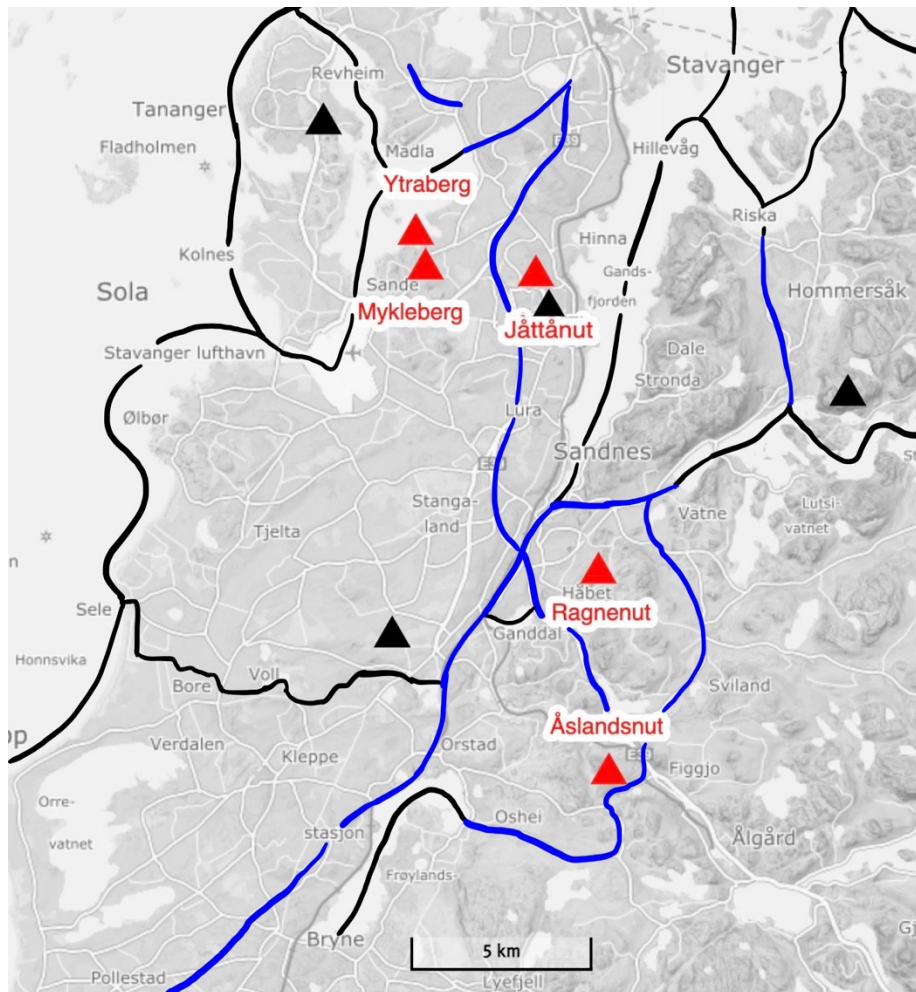


Figure 10: Hillfort locations in relation to water and land routes. The blue are possible land routes, the black are possible water routes. The red triangles are the studied hillforts. The black triangles are other hillforts in the area. The background map is from Kartverket.

Ragnenut is located further up the mountains at 172m, which is higher than the three previously mentioned hillforts. It stands in the center of many possible routes. The closest route could have been 1.75km away. This hillfort is also near several lakes, notably Stokkelandsvatnet and Lutsivatnet.

Åslandsnut is elevated higher and placed further than all the researched hillforts. It sits at 300m and is surrounded by mountainous terrain. It is located just a few hundred meters from a possible road from Figgjo to Kverneland. It is also located 1km from the Figgjo river and other multiple rivers that lead to Frøylandsvatnet, Mosvatnet, and Fjermstadsvatnet.

All of these hillforts are placed near possible prehistoric routes. For the case of the first three, they could have monitored and controlled boats, whether they be allies or not. This was most likely a highly active and powerful area. These hillforts could have also functioned as taxation posts. Similarly to the three previous hillforts, Ragnenut could have regulated traffic on land.

Åslandsnut is different in the fact that it is far inland, so it does not have an advantage over incoming sea traffic. Åslandsnut is located along the Figgjo river, which is known to be Rogaland's second largest salmon river. A rock from 1100 AD was found at a farm at Sele with the engraving: "The agreement upon this stone is that half the

fishing area belongs to (Sele) as a hereditary right” (Samnordisk runtextdatabas 2021). This suggests that this river was valuable and sought out. The Åslandsnut hillfort could have functioned as a post to monitor resource distribution and grant fishing rights. The Helleberg hillfort was found near the river’s halfway point. Perhaps Åslandsnut belonged to another farm to monitor their half of the river.

Hillforts located near prehistoric land and/or sea routes indicate that these hillforts could have had a control function. People who manned these hillforts would have an advantage for stopping and delegating traffic. This could have aided in military control of the area. They could have also been used to monitor resource distribution.

6.1.4 Power Centers

Hillforts may have been tied to local Iron Age power centers. As mentioned in the *Research History* section, Bjørn Myhre (1987) hypothesized that central areas, which were indicated by rich artifact concentrations, were encircled by hillforts. Some power centers may have overlapped other centers, which may have caused tension. Myhre referred to this area as a conflict line (1987: 184). These areas appeared to contain a higher concentration of hillforts than other areas.

Håkon Reiersen (2017) has adapted Myhre’s hillfort map with an overview of probable Iron Age central areas. Figure 11 is a map based on Reiersen’s center map.

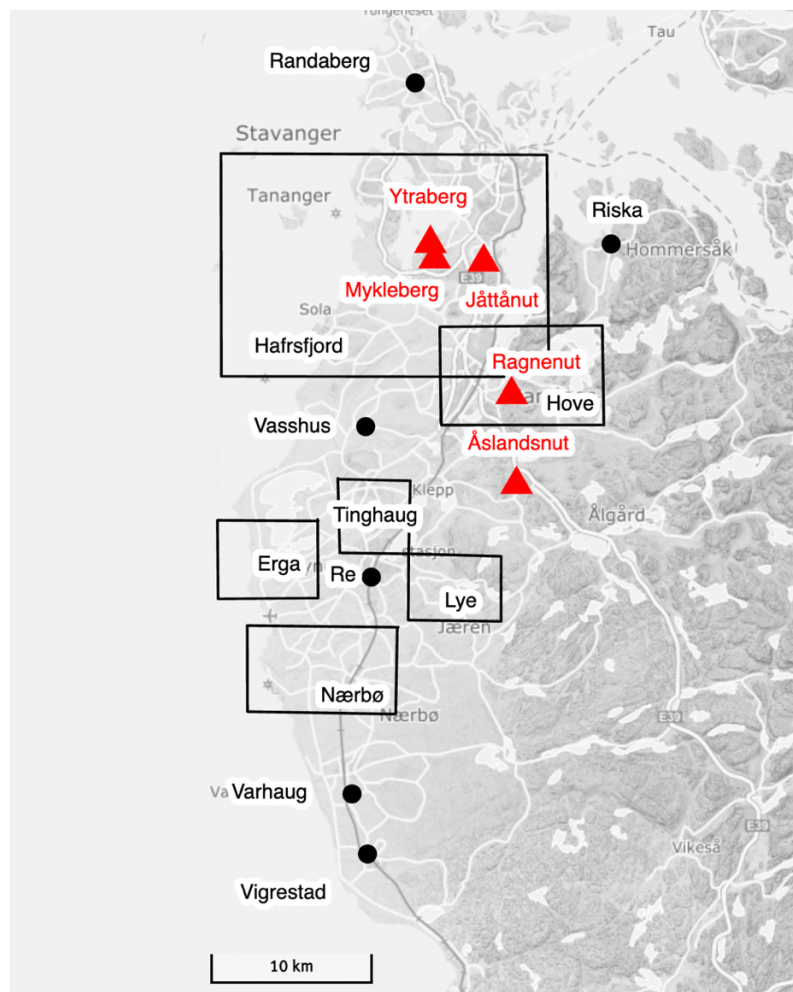


Figure 11: A map of the five studied hillforts in relation to possible Iron Age power centers. This is based on Reiersen’s map (2017:221). The background map is from Kartverket.

As seen on the map, Jåttånut, Mykleberg, and Ytraberg are located in the Hafrsfjord center. All three hillforts may have been used to control this area. Their placement does not coincide with Hafrsfjord's outer borders, however all three hillforts are placed at probable routes. The hillforts are also too far away to moderate the Hove power center, though the Jåttånut hillfort could stop Hove's incoming traffic by blocking Gandsfjord.

Ragnenut is the only hillfort that is located in the Hove center. According to Figure 11, the hillfort is located close to the outer reach of the Hafrsfjord power center. With reference to Myhre's theory of conflict lines, Ragnenut could have been a defense area against the Hafrsfjord center. This hillfort is placed in an area that is optimal for surveillance because of its clear and far-reaching views. With reference to Figure 10, this hillfort could have controlled traffic going to Lutsivatnet lake.

Åslandsnut is the only hillfort in this study that does not lay within Reiersen's hypothetical power centers. The hillfort is also not located on theorized conflict lines. It is quite isolated and far from other hillforts. It is located between the centers of Hove and Lye, so it could have controlled traffic coming from the south.

Hillforts' nearness to power centers may be evidence of a joint military system. Proximity to a center or peripheral territories may indicate a cooperation between military and societal organization.

6.1.5 Wall Typology

Walls have been found at every hillfort, except for Jåttånut. Since Jåttånut's walls were not found in the field inspections and there is no evidence of the wall type in literature, it will not be discussed in this section. All walls are slightly different in terms of measurements, but all are constructed with naturally occurring rocks in the area.

There is one wall at Mykleberg. It is small and short, only 0.5m tall and 1m wide, and is in good condition. There are not many tumbled rocks, which may indicate that this wall was not much taller. This wall may have contained wooden palisades to increase the height and level of defense, however it is difficult to know without an excavation. The wall also consists of medium sized rocks that could have been carried by a small group.

Ragnenut's wall is 60m long, 2m wide, and 0.5m tall. It is in poor condition; much of the wall has tumbled down and has been disturbed by hikers. This wall may have been much taller before because of the amount of tumbled rocks. Similarly to Mykleberg, the rocks are medium size and required a small group of workers.

Åslandsnut's hillfort is different from the other hillforts because it contains an inner and outer wall. Interestingly, there is a flat space between the walls. This space is a large area that could have contained resources such as food, water, livestock, and



Figure 12: Ytraberg's wall, a 114cm walking stick is placed in front of the rocks. Photo: Christina Oftedal.

weapons. The second wall wraps around the top of the mountain. This wall could have been a last defense if the first wall was penetrated by an attacker. Having an outer and inner wall suggests a higher level of defense and most likely required more manpower.

Ytraberg has three walls, one wall faces the west, another to the south, and the last protects the eastern side. The western wall consists of very large rocks, most over 1m long. Each rock must have required a large group of people to move. There were also many tumbled rocks, which could be proof that the wall was higher in the past. The southern and eastern walls were lower and shorter. Because of the large rocks, the length, the amount of tumbled rocks, and the construction logistics, this hillfort may have been highly defensive over a longer period of time.

Every wall is different, either based on rock size, length, height, width, or condition. It is difficult to understand the hillforts' level of defense when the walls are in so poor condition, especially for Ragnenut and Ytraberg. The walls at Jättånut have been so disturbed by current military activity, that they may no longer exist. Based on the information collected and analyzed, Ytraberg and Åslandsnut may have contained walls with the highest level of defense.

6.1.6 Iron Age Cultural Environment

All five hillforts have Iron Age graves and settlements within a 1km distance. Most of the hillforts are near three to four settlements, three graves, and three graveyards. Ragnenut is close to 15 graves and 3 cemeteries, which has the highest concentration of graves. Both Mykleberg and Ragnenut have an Iron Age burial mound within 50m from the hillforts. The burials may symbolize the hillforts' ties to both religion and war.

Åslandsnut has the least amount of localities. However, only a few hundred meters away, there is a very large farm with over 500 registered structures. This farm could have utilized Åslandsnut to control and secure its right over Figgjo's salmon-rich river.

Ytraberg is unique because it has structures inside the hillfort walls, which is atypical in Norway. Ytraberg has three square house foundations. The square houses were most likely specialized building to for example make food, work on crafts, or repair tools or weapons. They may have also functioned as temporary settlements, or military barracks. Additionally, several artifacts were found near Ytraberg: a Roman silver coin dated to 118AD and a Roman Iron Age buckle. The coin may have been imported by trade or mercenaries, and may tie the area to international trade or military activity.

6.1.7 Modern Military Activity

During field inspections, it was detected that modern military activity utilized nearly all hillfort locations. Of the five researched hillforts, three have been/are occupied by military units. Two of the five hillfort locations have WWII German bunkers or staircases, one of the hillforts have shooting positions, and one of the five hillforts is currently being used by NATO.

Mykleberg has both a German bunker and a staircase, while Åslandsnut has a German staircase and two shooting positions. Jättånut is currently occupied by NATO. Both Ragnenut and Ytraberg do not have a connection to modern military activity.

As mentioned, there were three hillforts that were inspected but were not a part of this paper's analysis. These hillforts are: Helleberg, Ulsberg, and Borgaråsen. Two of the hillforts have ties to modern military activity. Helleberg contains three German bunkers, and Ulsberg had several German posts. The hillforts' ties to modern military

activity highlight the hillforts' military characteristics. These hillforts are placed in areas that are optimal for modern military activity.



Figure 13: German WWII bunker at Mykleberg. Photo: Christina Oftedal.

6.2 Multifunctionality

Recently, archaeologists have studied the possibility of hillforts being multifunctional structures. Instead of interpreting hillforts in an eco-functional perspective, researchers looked at their possible symbolic meanings and uses. This was inspired by the development of post-processualism.

Archaeologists have recognized a fluidity during Norway's Iron Age. Modern interpretations of archaeological materials suggest that there may not have been a separation between religion and war. Soldier burials were connected to symbolic and ritual activities. Some soldiers took part in a ritual, in which they destroyed their own weapons (Nielsen 2013). Weapons have been deposited in bogs, which could have been a part of a ritual. Courtyard sites are examples of how judicial and political areas might have also functioned as military or religious sites (Iversen 2017). The connection between social-political and religious structures has also been analyzed in Rogaland's annular and triangular structures (Bergsvik and Engevik 2005; Kuhnle 2013).

This fluidity concept has been applied in hillfort research. The hillfort in Helgö, Sweden is linked to religious activity, but also to iron production and elitism (Clarke and Lamm 2017; Olausson 2009). Märten Stenberger wrote about the possibility of hillforts' connection to cultic activity (Haraldsen 1982). These hillforts do not follow a mountain's topography, do not have a vertically defined slope, and have graves within the walls. Five hillforts, with graves inside, exist in Rogaland.

Because of Ragnenut's placement in the Hove center, it may have had a religious function. The combination of military characteristics of the Ragnenut hillfort, and the religious connotations of the area, is an example of how military functions were most likely not separated from religion in the early Iron Age. Hove has a high density of potentially sacred place names (Reiersen 2017: 264). *Ragne* may stem from the old Norse word *ragn*, which means power or council. Other religious place names in Hove are: Hov (cult house), Helgeland (holly land), and Lunde (sacral grove) (Reiersen 2017: 266). There have also been found three women graves in Hove, whom are thought to be religious leaders (Reiersen 2017: 266).

Archaeologists have also analyzed hillforts as social-political and elite symbols. Michael Olausson hypothesized that prehistoric social hierarchy was manifested materially in architectonic structures, such as hillforts and longhouses (2009: 49). Moving farms in higher terrain and building a property wall was an expression of aristocracy's modernity and demonstrated economic value.

Ragnenut may have also functioned as a status hilltop settlement. So far, there have been no artifacts found within Ragnenut's walls, however there is an Iron Age settlement less than 50m from the hillfort. The inhabitants may have had the economic surplus to build a hillfort. The land has been fertile for centuries, and is still in use today. The oven and swamp found on the site may be evidence of iron production. There have also been found cooking pits near the settlement, which implies that there might have been festivals and banquets. This could have been a way of establishing power and status.

7 Conclusion

The hillforts in Northern Jæren most likely functioned as multifunctional military units. In general, the five researched hillforts fill the criteria of a typical Norwegian hillfort. All hillforts were placed on elevated terrain that had steep sides, a view, and had one accessible side. They were also located along possible land or water routes.

This paper investigated the hillforts' military ability based on their accessibility and height and proximity to routes, other hillforts, and Iron Age power centers. All hillforts were difficult to access on all sides, but one. Their height varied by hundreds of meters, so reaching the summits varied in difficulty. All hillforts were tall enough to provide a view of the surrounding area.

Mykleberg, Ytraberg, and Jåttånut were located along fjords, which were most likely common water routes. Åslandsnut and Ragnenut were more inland and may have overseen possible land routes. Most of the hillforts were near other hillforts, however Ragnenut and Åslandsnut were more isolated. All hillforts, except Åslandsnut, were located in possible Iron Age power centers. Interestingly, all hillforts, except Ragnenut, were tied to modern military activity.

Based on this paper's finding, these hillforts functioned as Iron Age military units. They most likely fulfilled military tasks, such as surveillance, route control, area control, and communication. The Iron Age fluidity suggests that hillforts could have had other functions and they could have been tied to religion, politics, economy, and social hierarchy.

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