Archaeological field survey of the Dønnesfjord Basin, Outer Sørøya

2017. SARG research group, UiT-The Arctic University of Norway

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Introduction and summary

This report sums up the results of the field survey conducted in the Dønnesfjord basin, northern Sørøya, by Kenneth Webb Vollan, Peter Jordan and Erlend Kirkeng Jørgensen on June 27. 2017.

The survey consisted in personnel being dropped off by boat at otherwise inaccessible fjords. The surveyed area is illustrated in figure 1. The purpose was to extend the SARG survey area in Hasvik municipality at the Sørøya island, in order to evaluate the representativeness of the existing survey data. Focus was directed at covering large areas relatively quickly and efficiently and checking a range of variable topographic conditions for potential Stone Age settlement. Measuring the general quantity of sites in a given area was prioritized over high-resolution recording of a few local sites. This delivered a better impression of the general intensity of Stone Age utilization of the area. Higher-resolution recording of particular sites is advised if this is deemed necessary for meeting research goals.

The sites in the Dønnesfjord basin give the impression of being unusually well-preserved, in the sense that structural and architectural elements of house pits and additional features at several of the sites were still standing. Walls, hearths and storage pits were easily recognizable. The favorable preservative conditions of structural features might stem from the low human impact in the area (there has been minimal interference by modern activities in the outer fjord systems, and the minimal soil and vegetation cover provided high visibility). There are no modern permanent settlements in the entire basin, and the archaeological sites are located in the outermost and least accessible fjords. Despite the favorable structural preservation, the area is only sparsely vegetated in specific spots. Many of features recorded during the survey were consisting of slightly moss-cladden pebbles. The preservative potential for organic matter is evidently non-existent in most sites.

Prehistoric site preferences in Dønnesfjord seem to be directed at the larger, outer fjords. Habitation structures were mainly identified as constructed depressions in pronounced beach ridges, and cobble sized pebbly beach ridges seems to have been preferred over turf covered surfaces. Areas that had small topographic advantages offering shelter from wind does also seem to have been preferred. High and steep beech ridges oriented directly at the sea is, on the other hand, avoided. This is possibly due to the high energy environment of direct wave-breaking, thus making some sites or sections of beach ridges unsuitable for habitation.

No habitation structures were identified in the inner half of the basin despite covering near all landable areas on the entire eastern shore. At the innermost fjord, two slate knives are supposed to have been handed over to the cultural heritage authorities, though I was not able to recover any information from Askeladden or UNIMUS. Despite this, no positive identification of settlement was made. Instead, a bipolar quartz core was identified during surface collection at a possible open site with the possible remains of a circular tent structure.

This core was the only artefact uncovered during the survey – i.e. no artefacts were identified on the pit house sites during this campaign.

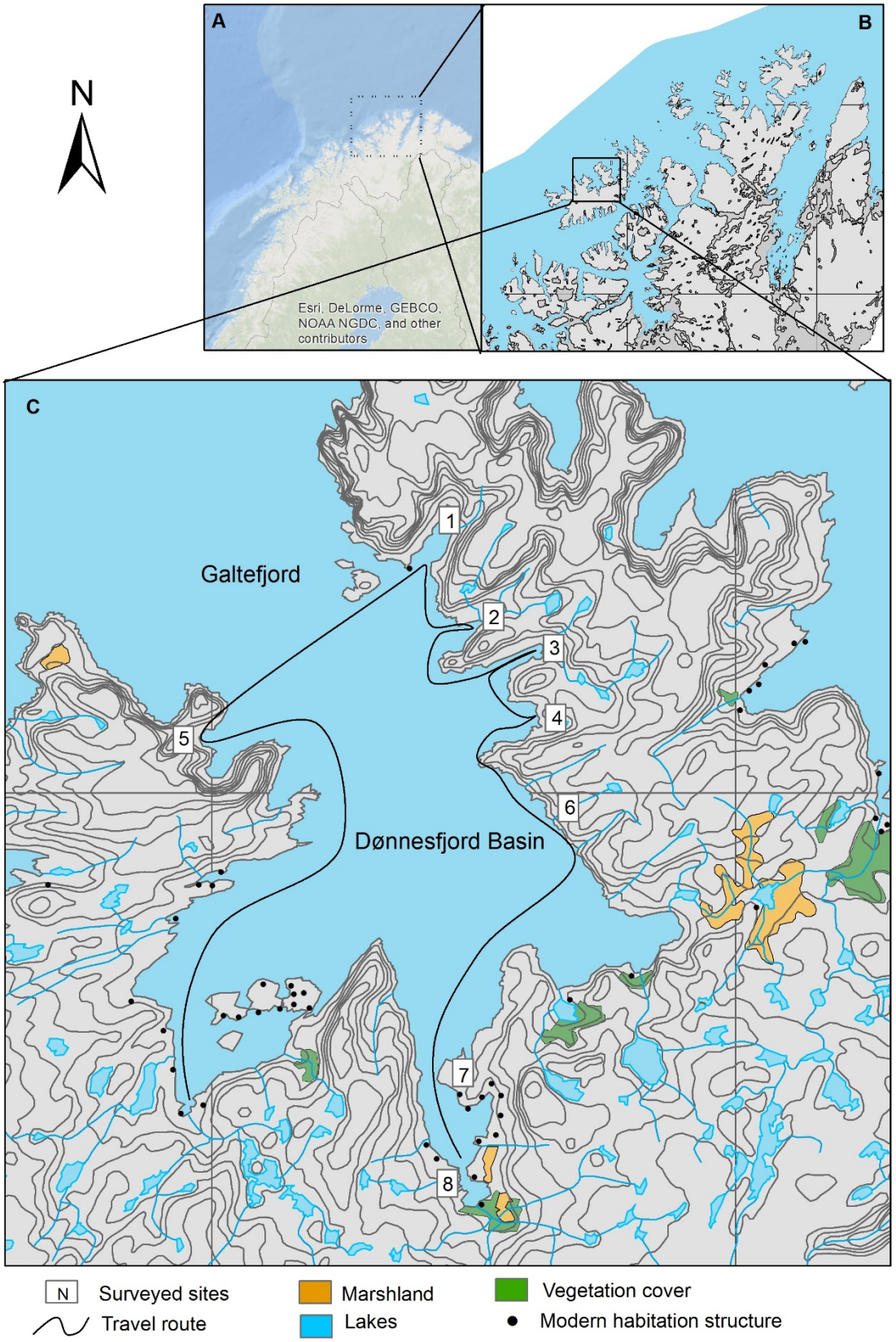


Figure 1: *Area map showing: A) Northern Fennoscandian overview. B) Western Finnmark section map. C) Overview of the survey area in the Dønnesfjord basin. Numbered sites are described in detail below. Reference numbered sites to obtain site names and detailed description. Map data from A: Esri, B and C: Kartverket.*

Prior knowledge of the area

Prior to this survey, most registered sites were concentrated in the innermost Dønnesfjordbotn and of modern/historic origin.

- Dønnesfjordbotn: 2 Sami sites containing turf houses, 1 Sami cooking pit (hellegrop) and 2 modern Sami rockshelters with build stone walls.
- Midterøya: A church site.
- Inner Børfjord: 1 Sami turf house of modern origin.
- Galten: A trading station.
- Makkvika: 5-6 stone age pit houses had been recorded earlier by Charlotte Damm.

A note on map legends

The following legend applies to the figures in this document:

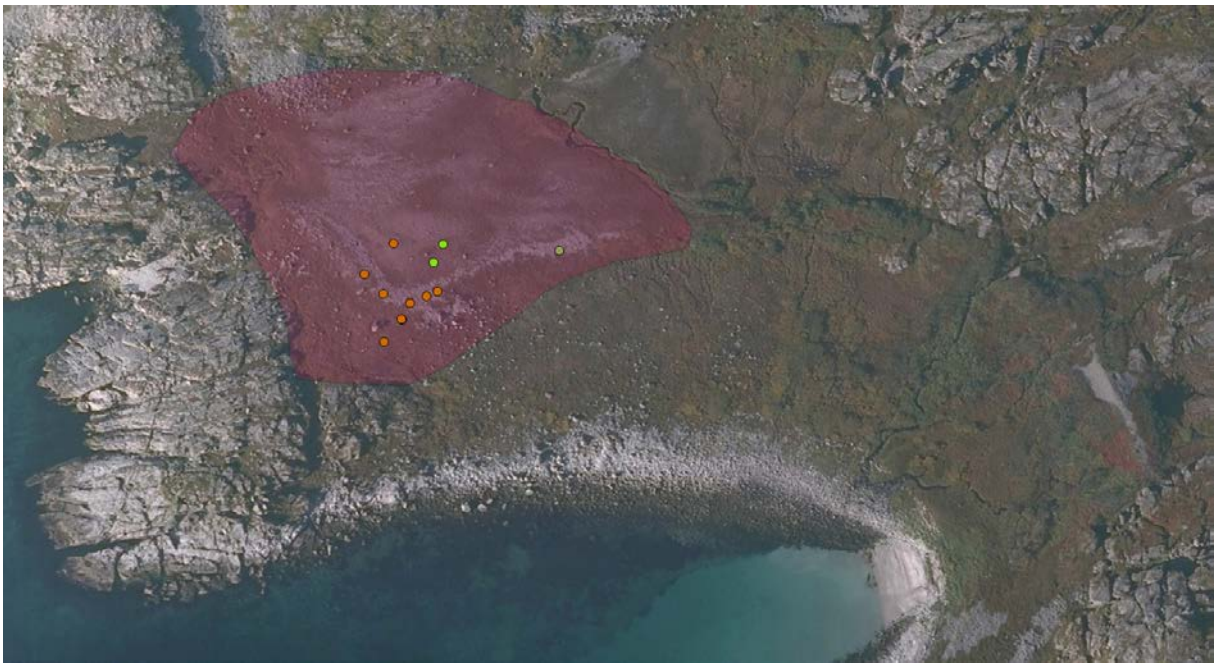
- Points indicate finds made during field survey (different coloration of points does not carry any meaning, as it only corresponds to individual survey sessions).
- Line indicate area travelled by boat
- Polygons indicate ground covered during field survey

For the recorded geometry and georeferencing of sites and features, see Askeladden and site-specific Askeladden ID´s provided in this document.

1.Jektefjorden

The potential for Stone Age settlement in Jektefjorden is considered to be minimal based on our observations. This is because the beach terraces were situated too low and were prone to rock fall from above slopes. Large sections of the potentially habitable surfaces were covered in scree and rock fall material. The inspection of Jektefjorden was made by visual evaluation by boat inspection. No landing was attempted.

2.Sandvika



229873: Sandvika: 11 pit houses were identified, situated below, on and above the Tapes beach ridge (see figure 2). The pit houses seem to by highly diverse, both in terms of shape, size and orientation. The settlement consisted of some pit houses with visible structural elements. Storage pits were occasionally visible. This was particularly the case for the pit houses dug into the unvegetated pebbly beach ridge, where 6 out of 11 features were situated. On top of the ridge, a slightly up-sloping terrace extended backwards to the foot of the hill. 3 house features were identified on the terrace. They were mostly flat (barely/minimally excavated into the ground). This is in opposition to the more visibly excavated features in and below the beach ridge. 2 features were identified below the main beach ridge, clearly cut into the more extensively turf-covered ridge slope in order to construct a level floor.

Askeladden reports on an older survey that identified a separate site (134733-1: Sandvika) containing 3 pit houses at the back of the terrace. Though this position is not feasible based on local topography and the site description in Askeladden, which states that the position of these features are highly uncertain. We deem it likely that they are part of the same site we recorded.

The location of the settlement area at the western end of the terrace exhibited favorable micro-topography due to elevated rock formations that provide shelter from the open ocean to the west. They would have made up an area of skerries during elevated sea-levels.

Only the western part of the site was surveyed due to time restraints. It is highly likely that a large number of pit houses remain to be surveyed in the inner parts of Sandvika.

Figure 2: *Illustrations of features encountered at the site. Upper left: Feature on top of terrace, unexcavated into the ground. Upper right: Feature belox main beach ridge, excavated into the turf. Bottom left/right: Features excavated/cleared into the pebbly beach deposit.*

3.Makkvika

The Makkvik fjord is relatively long and shallow compared to the other fjords of the Dønnesfjord basin. There are two rivers flowing into the inner fjord, giving the area estuarian properties with large collections of shellfish. As the fjord is shallow, similar conditions might have existed throughout the Holocene despite sea-level changes.

It could be mentioned that up the valley leading down to the Makkvika fjord sites, a relatively extensive hunting locality has been reported. According to the national heritage database (Askeladden), The site (Reppafjellet, ID: 112743) consists of a large number of hunting stands (bogastiller); 25-26, and some meat chases; 2-3. Reindeer obviously frequent the Makkvik area, observable through multiple shed antlers laying about the lowland parts of the fjord system.

There is also a comparable hunting locality (136050: Koppardalfjellet) somewhat further southeast along the mountain ridge. Both hunting localities are within the watershed/precipitation catchment area of the Makkvik fjord. That is, draining out in the Makkvik fjord, providing a natural passage into the Makkvik settlement area.

Makkvika was more completely surveyed. We identified separate clusters of pit houses, referred to as separate sites in the Askeladden system and as described below:

229895: Makkvika vestre: 3 pit houses fairly deeply excavated into the turf-covered ground. Likely of Younger Stone Age or Early Metal Age origin.

229984: Makkvika Midtre: 2 large pit houses of YSA/EMA origin. Deeply excavated into the exclusively minerogenic beach ridge deposit, made up of pebbles the size of a head/basketball. Clear mound of pebbles encircling the depression. A less substantial depression possibly connecting the two features (interpreted as a passage). Structural remains in the centre of both features testify to preserved stone-set hearth structures. In addition, several stone made features of unknown function is found in connection with the houses – some of which gave the impression of being secondary features based on superposition.

112723: Makkvika østre: 8 pit houses, of which 5-6 had been identified during a previous survey by Charlotte damm. Large pit houses placed in pebbly area without vegetation. Oriented east, towards

the bottom of the fjord, in the shelter of wind. Clearly visible construction features. Preserved wall mounds, storage pits, possible fireplaces, a possible corridor between two of the houses, possible grave mounds/meat caches (see figure 3). Great potential for studying architecture. Similar structural elements have been noted on a comparable and well-preserved site at Vannøya, Karlsøy municipality, which contain some discussion of their interpretation.[1]

Approximately 20 meters east of the cluster was the foundation of a telephone pole that connected the Galten trading station in Jektefjorden with the regional telecommunications network.

229999: Makkvikbotn: The area was only hurriedly recorded due to time constraints. 10 probable pit houses were identified on top of the Tapes beach ridge. It is recommended that a survey look into the potential for habitation structures at both higher and lower beach ridges.

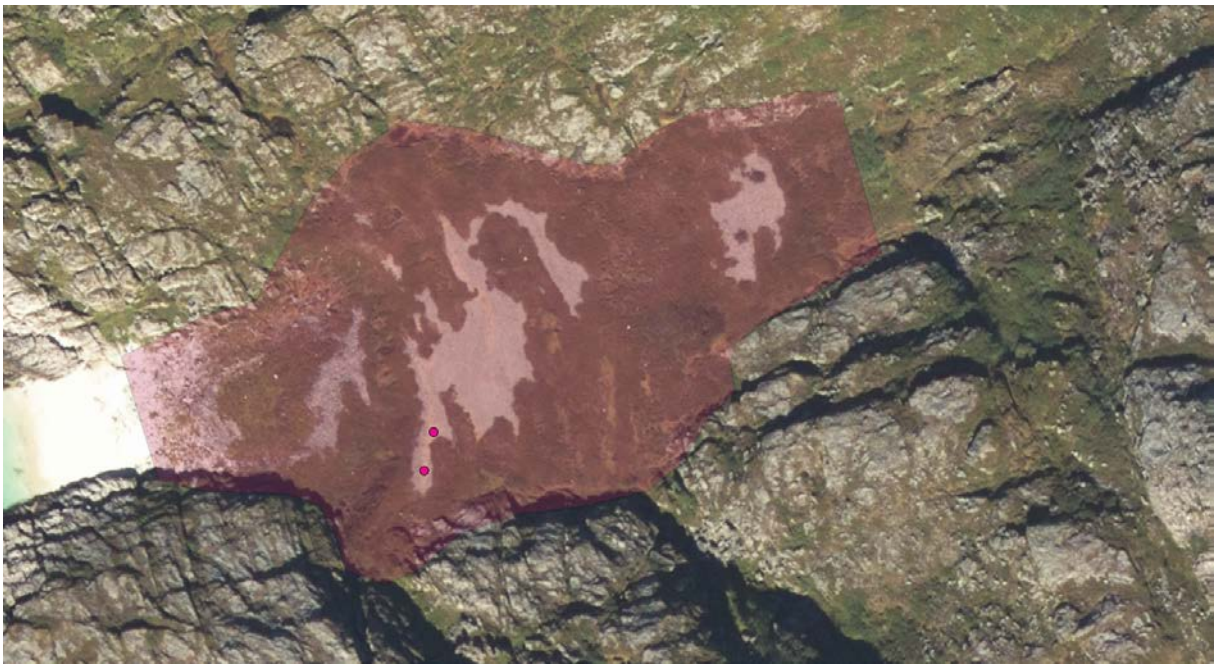
Northwest landmass (west of lakes): The area consist of terraces well suited for settlement, though no structures were identified. One possible reason may be that the terraces of relevant elevation for stone age settlement would have been cut off by water from the rest of the landmasses in the inner fjord.

Southern landmass: No structures were identified. A possible cause may be the steep terrain and that the terraces were exposed to rock fall. Large amounts of scree covered the terraces of relevant elevation.

Figure 3: *Architectural elements of structures in Makkvika Østre. Elevated rock mound in front, house depression in the back.*

[1] «På tuftefeltene er det regelmessig observert groper, i eller inntil ytterkanten av vollen som omgir hustuftene. Anne Karine Sandmo har tidligere benevnt gropene som kjøttgjemmer, dvs. tolkning som lagerfunksjon. En annen variant av dette er at gropene trolig har hatt en overbygning. På en særlig godt bevart lokalitet i Sandfjorden (Id 132343) observerte jeg nemlig ei grop med steinforbygning med beliggenhet som tilsvarende et skut/tilbygg på steinaldertufta. I enkelte tilfeller forekommer ei røys ved hjørnet av tufta. Røysene kan tolkes som sammenraste steinfundamenter i skut/tilbygg.» (Narmo 2012:34).

4.Pumpervika



230001: Sandbukta/Pumpervika: Two oval pits were detected at the top of the beach ridge. Approximately 1.5x2.5 meters on size. They were too small to be houses. Could possibly be storage pits. The beach ridge at Pumpervika was very high and steep, with an elevation of 20 m.a.s.l. falling directly to 6-8 m.a.s.l. and slightly sloping further down to face the fjord. The steepness is a probable indicator of high wave energy, thus indicting direct wave exposure. The high energy environment responsible for the massive beach ridge may be due to the funnel-shaped inlet at the site which enhances wave activity. The wind blows straight into the site which is very narrow. There were large amounts of driftwood and marine drifted debris at the beach.

5.Oksevika (North)

Oksevika consists of two distinct coves. The potential for human habitation at the southern cove was quickly written off due to the high exposure to rock fall and the large amounts of scree that covered the beach terraces. The northern cove was considerably larger and with several habitable terraces in safe distance from hazardous areas. Our boat driver informed us of the more or less permanent presence of seals (species not announced) at the Oksevika north beach.

230004-0: Indre Oksevika: Oksevika north was mostly covered by aeolian sand. The site clearly had a favorable microclimate. Facing south and well protected from wind. The site was markedly warmer than the other sites we visited this day. This was also reflected in the lush vegetation consisting of slender birch trees (more than shrub) and thick undergrowth – possibly due to a combination of the soil conditions rich in minerals, effective drainage, insolation and shelter from the wind.

The only feature identified at the site was 1 modern turf cabin (rectangular shape of relatively recently collapsed roof/walls), located close to a gorge offering favorable landing conditions in recent times, which excludes the possibility of any significantly older use as the gorge would not be usable at higher water levels.

The site being near completely covered by aeolian processes, it is difficult to assess the potential for Stone Age human occupation at the site. No pit houses or cultural remains were identified at the limited areas of exposed beach gravel. No test pitting was performed.

6.Skammelvika

No structures were identified at Skammelvika.

The site consists of a narrow valley ascending into the interior of the island. The tight valley and gradual sloping inland made the valley into an effective wind tunnel, bringing strong winds down the higher elevated inland and down to the coast, even on the fairly calm day when we visited. No natural topographical features existed in the valley that could provide shelter from the wind. The potential for habitation is thus considered unlikely.

The habitable terrace was split in two by a river that had eroded large parts of the terrace. Prehistoric sites may therefore have been destroyed. The beach ridge was high and steep, and drift matter had accumulated at the modern beach – all indicating direct and strong wave action.

Large accumulation of driftwood and marine drifted debris at the site, included a whale mandible.

7.Tomasnes eide

While sailing into the Børstrand basin (described below) which forms the innermost area of eastern Dønnesfjord, we passed a narrow strait made up by the protruding Tomasnes eide (isthmus). Approaching from the north we could see from afar the pronounced isthmus with clearly visible beach ridges – now covered by marshland. Due to strong time constraints and insufficient landing conditions, only a quick run-over survey was done, focusing on the south facing section of the isthmus. No traces of old settlements were discovered. The potential for Stone Age settlement on the north facing terraces is deemed to be likely.

We note that a significant anomaly was encountered on top of the isthmus. Next to a collapsed modern barn foundation and a concrete installment (probably German WW2) we discovered an oblong stone set feature, L:8 x W:2-3 meters, with an internal depression and slightly curving walls ending in acutely angled points (see figure below). The feature was overgrown in mosses, to a degree indicating a far older age than that of the modern ruins nearby – which where almost free of mosses. The investigators were unable to come up with any apparent practical function of the structure, both due to shape and placement atop the isthmus 30 m.a.s.l. Though reluctant to engage in speculation, the structure resembles Viking Age boat graves of Southern Norway (e.g. Lura and Gausel sites in Rogaland and Kaupang site in Vestfold). The placement ensures undisturbed views both in and out of the fjord, and is in accordance with burial traditions favoring exposed, elevated and highly visible spots overlooking the landscape – known both locally and in Southern Norway from several prehistoric periods. The physical dimensions of the structure is furthermore equivalent to a small/medium sized Nordland boat (such as Trerømming, Halvfjerderømming or Firroring) as well as the Viking Age boat graves from Southern Norway.

This finding seems a bit out of place, at least unexpected, as there are no recorded boat graves from Finnmark. The currently northernmost find was recently made at Hillesøy, Tromsø municipality, and the distribution increases southwards along the coast of Nordland. If the interpretation of this feature is to be accepted as a boat grave, the finding would contribute to an extended distribution of the boat grave phenomena (mostly dated to the Merovingian and Viking Age) well beyond current limits. Alternatively, the feature is misinterpreted. The lack of similar features in Northern Troms and Finnmark total might suggest the latter, though the recording of odd features that do not fit with the

established survey regime may potentially have fruitful results in increasing data coverage and representativity of different heritage features and sites. Future investigations may resolve the issue.

8.Børstrand/Melkenes

The survey did not identify any structures in this area. The potential for prehistoric settlements on the western terraces of the Børstrand basin is deemed to be good, but the area seems to have been altered by pastoral activities, drainage and modern habitation. A worked bipolar quartz core was found at the western terrace, possibly indicating an open site (fig. 4). A collection of medium sized

rocks vaguely resembling structural remains from a tent circle attracted the initial interest in the area where the quartz core was found – though the reliability of the observed "tent circle remains" is questionable. The eastern terraces did not provide any findings, but have also been more intensively settled in modern times.

Figure 4: *Left – worked bipolar quartz core. Right – view towards Tomasnes eide (to the right) and Dønnesfjord behind, from Melkenes western terrace, slightly NW of the find spot for the quartz core.*

Concluding thoughts: Settlement pattern and economy

Some discussion have been made regarding the larger settlement pattern of Sørøya. Andreassen (1985:238) claimed that the outer coast was utilized at a later stage than the inner coast, and that the settlement had a seminpermanent character. The available dates form the Sandøyfjord basin (adjacent to the Dønnesfjord basin), center on the YSA/EMP-transition and later (see fig. 5). The pit houses at outer Søyrøy site Skarvfjordhamn were markedly larger (x2-3 times) and younger (approx. 1000 years) than the comparative site of Hellefjord, inner Sørøy (Andreassen 1985:194). Without preserved organic material at the sites uncovered in Dønnesfjord it is hard to test this proposition in this area, but the quite large size and rectangular/oblong shape of several house features may indicate a date in the lower age range in this spectrum – thus in accordance with Andreassen.

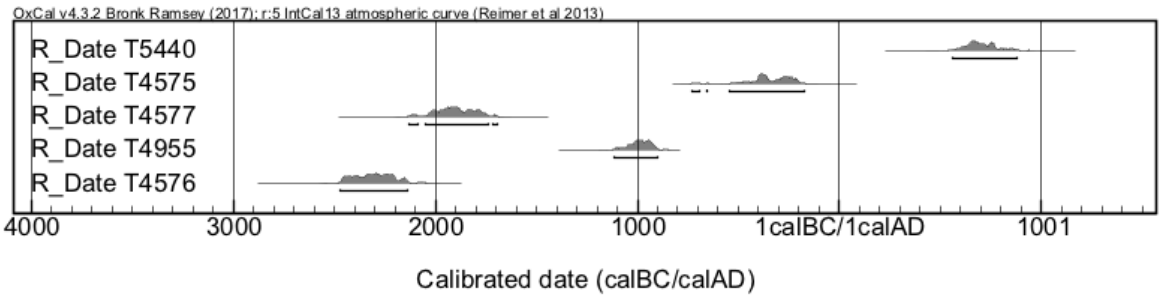


Figure 5: *Dates from Skarvfjordhamn site in the Sandøyfjord basin, adjacent to the Dønnesfjord basin.*

The known prehistoric settlement of the Sandøyfjord basin is concentrated in the inner parts, with some smaller sites situated on the mid-basin islands. Andreassen (1985:238) suggests that the settlement pattern of outer Sørøy necessitated more extensive travel investments in order to access fish resources. In contrast to this, the settlement pattern of the Dønnesfjord basin seems to suggest a main emphasis on outer fjord marine resources as all the big settlements are situated in the outermost fjords. In terms of resource availability, the outer fjord systems along the Reppafjell massive might have constituted the richest areas due to the combination of stable fish resources and

the historically and modern known seal colony at Oksevika North, and occasional hall out by migrating walrus on the outermost coast of Finnmark. In addition, reindeer move to these fjords while crossing the interior of the island. This is evidenced by shed antlers and animal tracks in several sites, as well as the before mentioned extensive reindeer hunting installments on the Repparfjell massive, just above the Sandvika and Makkvika sites. Clams and shellfish were found in large quantities, and might function as dietary supplements and backup resources in the estuary environments of the innermost parts of the fjord arms.

Historically documented and current use of the fjord basin strongly suggest that the outer fjord basin provides the highest marine productivity. The fishing and spawning grounds are located in the topographically varied marine environment of the outer fjord basin, where deep sea nutrients get propelled towards the surface by currents and the up-sloping fjord bed. This attracts fishes, and secondarily pinnipeds (seals/walruses) and delphinidea. In this regard, it can be mentioned that a harbour porpoise (Phocoena phocoena) appeared while crossing the Galtefjord, staying close to and following our boat for several minutes.

Judging from sea-maps and the limited bathymetry data available from outer Sørøy (cf. http://mareano.no/kart/mareano.html), the glacially excavated trough in the Dønnesfjord basin deepens just north of the Veinesgrunnen (in the center of the basin) from approx. 60 to 180 meters of depth. All identified habitation sites are located beyond this threshold. The area known for prehistoric settlement in the Sandfjord basin (eastern area) is significantly shallower and the sloping gradient smaller compared to the Dønnesfjord basin, resulting in a less topographically dynamic sea bed. This might hint at the variable settlement emphasis of the outer basin in Dønnesfjord, and inner basin of Sandøy – if the representativity of our current data justify such upscaling.

Lastly, according to experienced and local kayaker (our boat driver, pers comm) the Norwegian Coastal Current is supposedly too strong to move against by manual power in parts of outer Sørøya. If this is correct and similar conditions may be extrapolated back throughout the Holocene, this very simple mechanism may have contributed to the settlement dynamics of outer coastal areas if accessed by seafaring vessels. Though the claim of the local kayaker can be disputed, the rugged topography and high exposure of the outermost Sørøy coast would anyways be associated with high risk of movement, maybe suggesting an on-land access to the Dønnefjord sites as more likely.

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