

Sliding tracks on the Island of Bornholm, Denmark

A recently recognized ancient monument class

Abstract

A distinct ancient monument type, though of uncertain date, in the Baltic Sea Island of Bornholm, is described and discussed. On a number of granite rocks deliberately polished courses lead down a slope at a steep angle. The length of these shiny, polished surfaces varies from about 2 m to 10,4 m. The widths do not vary much, with an average at about 35 cm. Seven Bornholm surviving examples of these sliding tracks are presented, recorded in 2023, 2024, and Hammeren in 2025. In two cases, Klintebakken and Slamrebjerg, a sliding track is still in regular use. In other cases, information has been obtained regarding their use during the last 150 years. Seeking explanations for this distinct phenomenon, folklore evidence may connect the past with the present, suggesting fertility magic. However, a customary use just for fun, children's games, is well recorded.

In neighboring Sweden, recently, such sliding tracks have been recognized and appreciated as representing a well-defined class of ancient monuments. Similar sliding tracks are known from the Italian Alps, Südtirol/Alto Adige and Valcamonica, Lombardy. (Fig. 1).



Fig. 1. Nature guide Finn Kofoed Hansen demonstrates the Klintebakken sliding track, Bornholm.
Photo: F. Kaul.

Introduction, our point of departure

In our previous research, with a focus on Bornholm, attempts have been made to connect prehistoric archaeological (physical) evidence with more insubstantial folklore evidence. The folklore phenomenon, “to place a fire” in a sacred stone was scrutinized and compared with the physical evidence of Bronze Age depositions of burnt wattle-and-daub in cavities of the sacred rock at Madsebakke, covered with Bronze Age ship petroglyphs (Kaul 2020; Kaul 2021; Kaul & Nielsen 2021; Kaul et al. 2022). We were not claiming a direct connection or continuity between the Bronze Age and the present. However, the folk tradition may inform us of some ‘logic’ as to the ideas associated with a documented prehistoric practice. Similarly, for understanding the meaning of the sliding tracks in question, folklore evidence may serve as important guidelines, providing some possible answers to our quests.

The idea that a potential fire in a magical way could be placed or locked into a stone is well recorded – as well as the devastating consequences if such a stone was demolished or removed from its original place. Yet, more widespread was the general idea that disaster and diseases could be kept in a stone (Danish: *Ulykkessten*), though released if the stone was harmed or removed: calamities, accidents, illness, death, related to the farm or the neighborhood (Schmidt 1928; Schmidt 1933; Lidegaard 1994). However, the costs when demolishing a stone of a certain sanctity were of a highly various nature, as shown by this example: A stone at Dyssekilden, North Zealand. The first who tried to demolish the stone went ill, the next died; however, the man who finally crushed the stone into pieces (Danish: *slog stenen itu*) remained unharmed (Schmidt 1933: 122).

At Kjøddasten, Bornholm, the ‘punishment’ for eliminating an important sacred stone seems rather limited. During the 1870’s the large boulder of fine reddish granite was demolished, the stone material was sold

and used for fortification constructions at Copenhagen. While the stoneworkers pounded Kjøddasten into pieces, the owner felt uncomfortable, and he had to rest on a burial mound nearby, Kurrehøj, until the disease left him. It was said that he should have left the stone unharmed (Schmidt 1933: 177).

The story of Kjøddasten could – in our research – be finalized here, yielding yet another example of (illness) consequences related to the destruction of sacred stones. However, the folklore traces can bring us back to other layers of beliefs and rituals, in particular for understanding the sliding track phenomenon. Here, the groundbreaking Swedish research has prompted us to proceed in recording the Bornholm sliding tracks (Wikell et al. 2016 a; Broström et al. 2021 & below).

Kjøddasten, at Nexø, Ibsker Parish, Bornholm. With folklore evidence of the use of sliding tracks

We can regret that Kjøddasten was destroyed more than 150 years ago, though gratified with the old recordings related to this important stone, which measured about 9, 5 x 5 m, with a height about 3 m over the surface. Today, a swampy waterhole takes up the former place of Kjøddasten (Fig. 2.).

The Bornholm name Kjøddasten carries its own magic. It means Meat Stone (Danish: *Kødstenen*), or perhaps rather “Defleshing Stone”, meaning ‘the stone, where animal’s skin were defleshed’. The curious name is supplemented by this account: “Here horses were slain in former times” (Danish: “*Her blev heste slået ned i tidligere tid*”) (Schmidt 1933: 177; DFS 1906/23 top 674 (b). Perhaps, the name could relate to ancient, heathen horse sacrifices? (Note by Henrik Klindt-Jensen, personal archive, personal communication).



Fig. 2. Kjøddasten, Bornholm. Nothing remains, but a waterhole. Photo: F. Kaul.

Kjøddasten, and other Bornholm stones, smelling bread

An account informs us that Kjøddasten turned when smelling newly baked bread (Schmidt 1933: 177; DFS 1906/23 top 674 (a)).

On Bornholm, this curious phenomenon has been recorded at more than 10 places. Most of the stones have been destroyed, like Kjøddasten. Some are natural blocks or glacial erratics, like Kjøddasten: A stone called Brunsten turned every time it smelled newly baked bread (DFS 1906/23 top 674 (b)).

Some other of these bread-smelling stones are/were parts of ancient monuments, often related to prehistoric burials. A standing stone, called Høje Sten, in a garden in Rønne, turned when smelling newly baked bread. This stone was seemingly the last remaining of a group of standing stones (probably Iron Age grave markers) (DFS 1906/23 top 641 (a)). About 250 m west of St. Peter's Church (Pedersker), another

stone turned or moved when smelling newly baked bread. Together with some demolished standing stones west of the church, this stone may have been an Iron Age grave marker (DFS 1907/23 top 683).

The most monumental of these standing stones, turning when smelling newly baked bread (easier to turn a bit, when being a standing stone!), is situated NW close to the old road and bridge over Grødbyå near Runegård and Grødbygård, in Åker Parish. This weighty menhir is 1.7 m high. The front of the stone is covered with about 100 cupmarks, some very deep (Fig. 3) (Thorsen 1931: 47-48; Schmidt 1933: 181; Nielsen 2006: 43; DFS 1907/23 top 684). The Grødby menhir is still standing, easily accessible for the visitor, close to a public road, a protected ancient monument (Fund og fortidsminder, Parish registration 060205, locality no. 170).

Southeast of Rønne, Rønne Parish, another stone which turns when smelling newly baked bread has been recorded (DFS



Fig. 3. The standing stone at Grødby, Åker Parish, Bornholm, is covered with cup marks, probably of Bronze Age date. Photo: G. Milstreu.

1906/23 top 641 (b). Here, we are not dealing with a standing stone. According to the Danish parish registration, this stone is described as a natural outcrop. Its flat surface is covered with about 50 cup-marks, and it has consequently status as a protected ancient monument (Fund og fortidsminder, Parish registration 060304, locality no. 16 A). It is situated in a plantation at Søndre Landevej, not far away from Bornholm Airport. It is important to note that this sacred rock (outcrop) according to local knowledge is called "*Offerstenen*", 'the offering stone' – and what is more – coins were placed in the cup-marks as sort of offerings (not necessarily with deep religious feelings, but just as hoping for good luck). At any rate, "*Offerstenen*" at Rønne seemingly incorporates both the 'stone-smelling-bread' phenomenon and evidence of some offering practices. This brings us to additional folklore evidence, outside Bornholm (see just below), from another beautiful island of Denmark, Samsø, where offering practices

seemingly are combined with 'stones smelling bread' as well as of fertility magic.

A bread smelling stone, outside Bornholm

The Bornholm 'bread-smelling-stones' do not stand alone. In Danish and Swedish folklore material, we repeatedly hear about sacred stones, somehow enacting with the human world, jumping or turning when feeling the smell of warm, newly baked bread (Schmidt 1933: 96-97, with many listed examples). These tales about stones turning when smelling bread may seem enigmatic. However, a sacred stone, *Dyvelstenen*, on the Danish island of Samsø can provide us with some explanatory information. In 1908, an old man (age 79) told that when he was a child, he took part in bread offering acts, carrying bread out to *Dyvelstenen*, and left it on the stone. Then the children waited for a little brother or sister to come from the stone (Schmidt 1933: 150) In a report from 1932 by Julius Raklev (conservator at the National Museum, responsible for restoring megalithic monuments), we are informed that old people told that they still remembered a time when newly baked bread was offered to the stone, when wishing an heir (Eriksen 1990: 54-55). As late as 1975, bread was seemingly offered at *Dyvelstenen* (Lidegaard 1994: 93). Families rooted in North Samsø are still well at home with the ideas of bread offerings related to fertility magic (Kaul 2020; Kaul 2021).

Dyvelstenen can fill out some of the gaps for understanding the 'stone-smelling-bread' phenomenon: It seems relatively easy to understand that the smell of newly baked bread refers to bread being placed on or at the stones. Perhaps, the turn may signify that the stone and the spirits behind has accepted an offering. When some stones respond to the smell from the bakery, then it should be regarded as a 'modernization' of the theme, while the meaning proper was forgotten (Kaul 2020: 48-49). It has been suggested that these stones, which turn when smelling new bread, originally were places for offerings presented or given to the spirits of the stone, probably as acts related to a fertility cult. In some

cases, the legends of children coming from the stone and the stories of stones smelling bread are combined in one and the same stone. Through the centuries, at most of the places, the religious meaning was forgotten, only fragments survived (Schmidt 1933: 97).

Thus, the records from Kjødasten, when corroborated with the evidence of Dyvelstenen, Samsø, may indicate a connection to fertility magic related to bread offerings. As we shall see below, the use of the sliding tracks themselves may as well suggest layers of fertility magic hidden in the remains of folklore material.

Kjødasten, a magical sliding track?

There are several accounts of Kjødasten used as a sliding track, most remarkable is the relation to local (Christian) confirmation practices, the confirmation process was not fully completed if not visiting Kjødasten (Schmidt 1933: 176-177). (In Danish: *"Fhv. Borgmester Harild, Nexø fortæller, at det var fast skik i hans barndom, at konfirmanderne skulde en tur til Kurrehøj og Kjødasten. De var ligesom ikke rigtig konfirmerede ellers."* (DFS 1906/23 top 674 (b)). Hans Berg Harild, 1856-1934, was mayor in Nexø 1919-1929. Since he has told that in his childhood this was an ordinary custom, we can look at the 'chronology': He was born in 1856; thus, at his age of about 15, we are in the year 1871, probably a couple of years before the stone was destroyed. Seemingly, he could himself have taken part in this practice. Other accounts are shorter: "The boys used to slide down the stone." (DFS 1906/23 top 674 (b)). And. "On the confirmation day, we went out playing there".

The school master of Nexø Realskole, Alfred Jensen (1879-1947), has yielded further information concerning this practice: "At a time, it was an established tradition that the confirmands met at the stone on the very celebration day, having fun sliding down its slanting surface, sitting on a loose stone." (DFS 1906/23 top 674 (b) & personal communication with Henrik Klindt-Jensen, the grandson of Alfred Jensen (and the son

of the archaeologist, Professor Ole Klindt-Jensen). It should be noted that there are about three km's walk from Nexø to Kjødasten.

Moreover, the accounts by Alfred Jensen, indicates that the practice of sliding down on such rocks was not a phenomenon solely related to Kjødasten itself, since this peculiar practice has a name – a phrase, which the authors of the present article have also met themselves when tracing the sliding tracks. This was called, Bornholm dialect: *"Kjöra glatten or kjöra rawkana"* (Schmidt 1933: 176-177; DFS 1906/23 top 674 (b)). (These words are difficult to translate into English: The first words, means to move on a smooth surface, the second words may be difficult to translate: To drive 'arse-sledge' or 'bottom-sledge. In current Danish, the words would be: *"køre røvkane"*; *"køre røvslæde"*).

In these accounts there are no references to fertility magic. However, it seems not difficult to envisage that the practices related to Kjødasten could be related to initiation rites, from childhood to adolescence, the full meaning being obscured by the time's progress – where only the last fragments of ancient rituals had remained.

Alfred Jensen has mentioned that to *"kjöra rawkana"* was a popular sport at other places on Bornholm. Unfortunately, he did not reveal further accounts as to these places (DFS 1906/23 top 674 (b) & personal communication with Henrik Klindt-Jensen, the grandson of Alfred Jensen). The recent discoveries of the sliding tracks can remedy this lack of information, when now, the broader use and existence of these ancient Bornholm monuments have been revealed and documented, including further folklore evidence. As follows, we can now continue our sliding tour through the mysteries of the rocks of Bornholm. Six Bornholm sliding tracks were recorded by the authors in 2023 and 2024, one early in 2025. In Bornholm dialect, the sliding tracks are called *"Skrebaner"*

Myreby at Kæmpebro, Vestermarie Parish, Bornholm

The sliding track at Myreby was visited by the authors in 2023, though registered by Bornholms Museum in 1995 (BMR reg. no. 3246). When contacting the owner of the land,

Carl Erik Rottensten Kofoed, he could point out the approximate location of the sliding track. – And by following his directions, after a couple of tries, the Myreby sliding track was re-discovered, covered by wet leaves and some loose soil, in a small forestry location. After cleaning the rock, the sliding track became visible; the smooth polished (shining) surface dried out much quicker than the surrounding coarse old, weathered granite surface. For some moments, while the drying process was in progress, the sliding track stood out most discernible (Fig. 4). And, with our fingers, our finger-touch, it was easy to feel and de-

limit the sliding track: The smooth feeling of the polished surface, the coarse feeling of the granite itself.

The Myreby sliding track is relatively short, its length is about 3 m., and it is 30 cm wide. It falls at an angle of 24-26 degrees. It faces SE.

Carl Erik Rottensten Kofoed, owner of the land, has told that his grandmother, when young, was the last who had used this sliding track. Since Carl Erik's age is about 70, then the track was used for the last time about 1915-1920. At that time, it was seemingly implicit that its use may have had fertility improving qualities, as today. In a joking way only, we hear about the pregnancy improving potentials: The existence and the life of the heirs of their grandmother are related to this last use of the Myreby sliding track.



Fig. 4. Myreby, Bornholm. The lower part of the sliding track. On the newly cleaned rock, the differential drying made it easy to distinguish between the polished surface and the untouched surface. Photo: G. Milstreu.

Klintebakken, Åker Parish, Bornholm

The sliding track at Klintebakken is in open land, with a splendid view over the landscape. It is now situated in a geological park area, where the visitors are informed about the spectacular geological fault zone, here separating granite bedrock from much later sandstone formations. The sliding track itself is on a larger glacial erratic. On guided tours, the sliding track is regularly demonstrated (See Fig. 1), and visitors, if they wish, can have a try.

The sliding track is relatively short, its length is about 3 m., and it is 30 cm wide. It falls at an angle of 18-20 degrees. It faces S.

The sliding track's polished surface is easily distinguished from the surrounding coarser rock. In bright sunshine, when seen in the direction of the sun, the sliding track stands out, glaringly, as a shining line in itself (Fig. 5.). When getting closer to the track you get nearly blinded, the polished surface serving as a mirror of the sun. It seems not difficult to envisage that such sun-reflecting properties would have been appreciated, among the magical capacities of the polished surfaces.

Nature guide Finn Kofoed Hansen recounts that it is commonly known that a glide on the sliding track (and other sliding tracks) could help women with pregnancy problems. When guiding groups of schoolchildren on the geologically important site, the sliding track is presented, and its use is demonstrated (See Fig. 1). A couple of years ago, a teacher, seemingly with such problems, did an extra tour down the track. The next year, she arrived with another school class, and the positive result was visible, no doubt. This is told in a joking manner, like other similar accounts. The point is that even though we do not believe in such magical capacities, the memory is still present and alive.

Slamrebjerg, Bodilsker Parish, Bornholm

Like Klintebakken, the sliding track at Slamrebjerg is not unknown, and it is regularly used. However, not so many are acquainted with this sliding track situated on private ground in a small grove.

The length of the sliding track is 10,4 m, and it is 31-40 cm wide. It falls at an angle

Fig. 5. Klintebakken, Bornholm, the sliding track shines, reflecting the sunlight. Photo: F. Kaul.





Fig. 6. The Slamreberg sliding track in its full length. Photo: F. Kaul.

of max. 20 degrees. It faces NW. It terminates close to a small brook.

Like the other sliding tracks, its polished surface is easily distinguished from the surrounding coarser rock. And when sunshine reaches the track (or parts of it), it is easily recognizable (Fig. 6.).

In April 2023, the authors visited the Slamreberg sliding track, meeting the land-owner, Peter Sonne Larsen, who guided us to the track. To our happy astonishment, he immediately demonstrated the use of the track: Sitting on a sort of grinding stone, as smoothly polished as the track itself, he virtually flew down the track, accompanied by rumbling and a certain smell of scorching (Fig. 7.). The sliding stone, which seems to fit well when sitting, gliding, measures about 35 x 40 (Fig. 8.). We were informed that the Slamreberg sliding track is still regularly used in this way, at midsummer's



Fig. 7. Peter Sonne Larsen demonstrates how to use the Slamreberg sliding track. Photo: F. Kaul.

eve (Danish: "Sankt Hans Aften"), at a Sankt Hans Aften celebration. No specific ritual or magical connotations are involved. It is

Fig. 8. The sliding stone, in regular use at Slamreberg c. 35 x 40 cm. Photo: F. Kaul.



just the children having fun sliding down the track. And some of the parents come out sharing the fun.

Peter Sonne Larsen kindly referred to his uncle (*farbror*) Svend Ole Larsen, born on the farm, for further information, bringing us back in time. In April 2024 FK interviewed Svend Ole. He had not heard about fertility improving capacities when using the sliding track. For him the key words were "play" and "fun", most for children. He said that when they had guests the adults shared the fun with the children. Furthermore, Svend Ole remembers that when he was a child (in the 1950'ties), tourists from Copenhagen visited and used the sliding track, having fun: "*Københavnere, der kom på besøg – de kom og synes det var sjovt.*".

In 1961, the Slamrebjerg sliding track is mentioned, used by young people: The children sitting on a stone slide down the slope (Danish: "*Børnene sætter sig på en egnet sten og kurer på denne ned ad klip-peskråningen. Der skal dog lidt øvelse til, hvad man ved et forsøg hurtigt kan forvisse sig om.*") (Kjeller 1961: 12-13).

Store Gadegård, Vestermarie Parish, Bornholm

This sliding track has been located, most recently, by place-name research, by one of the authors (Finn Ole Nielsen). In the list of Bornholm place-names, the name "Skrehald" (means sliding rock) appears at Ellebygården (Rohmann 1950-51). When asking locals about a suitable rock outcrop, only one place could be pointed out, since the rest of the Elleby area is flat arable land without rock outcrops. In April 2024, it was not that difficult to find the sliding track: In a small plot covered with trees there were not many candidates to search for. Cup-marks on rock are recorded in 2000 by Bornholms Museum (reg. no. BMR 2820), though not the sliding track.

Like the other sliding tracks, its polished surface is easily distinguished from the surrounding coarser granite rock. The sliding



Fig. 9. The Gadegård sliding track, graphically marked. Close to sliding track, 17 cup-marks were identified, here painted by chalk-solution. Photo: F. Kaul & G. Milstreu, with graphics by Olle Thorup.

track is situated at the southern end of a low north-south-oriented rock outcrop. With a length of 2 m, the Gadegård sliding track belongs to the shortest ones. It may be a few cm longer, since it seemingly continues under some earth cover. The sliding track is 29-31 cm wide and falls at an angle of about 30 degrees. It faces towards ESE. (Fig. 9.).

On the upper part of the rock and a bit down its sloping surface, at least 17 cup-marks were identified when cleaning the sliding track. The cup-marks measure 3.5 to 6.0 cm in diameter, which is quite normal for this rock carving category, conventionally being related to the Bronze Age. Two of the cup-marks are close to the upper part of the sliding track, one virtually touching the polished surface. It is not possible to determine whether the sliding track was

made before or after the creation of the cup-marks. On the northern part of the same outcrop, 6 cup-marks were found. On another rock, close-by, more cup-marks were identified (the cup-marks registered by Bornholms Museum in 2000).

Troldklippe, Paradisbakkerne, Ibsker Parish, Bornholm

This fine sliding track is located at the edge of the forested hilly area called Paradisbakkerne, the "Troll Rock" itself in relatively remote and hilly surroundings with light forest cover. The site is not unknown, and

consequently we cannot speak about any sort of re-discovery.

The polished track is easily distinguished from the surrounding coarser rock, here light granite. When examining the Troldklippe sliding track, April 2024, the light conditions turned out to be brilliant, the sunlight superbly reflected by the mirror-smooth polished surface. Within 30 minutes – 15:00-15:30, solar time – a window of photo opportunity opened: When the camera was turned towards SW, virtually towards the sun, the beams of the sun were directly reflected by the sliding track (Fig. 10.) (Fig. 11.). Also in detail, the sliding track stands out, shining (Fig. 12.).



*Fig. 10. (left) The Troldklippe sliding track, full length, reflected by the shining sun.
Photo: G. Milstreu.*

*Fig. 11. The Troldklippe sliding track.
Photo: F. Kaul.*





Fig. 12. The Troldklippe sliding track, upper part. Photo: F. Kaul.

The length of the Troldklippe sliding track is 7,7 m. It is 30-32 cm wide. It falls at an angle of about 30 degrees. It faces NE.

On the sliding rock, five cup-marks were recorded. Three cup-marks are close together, about 1m from the sliding track.

Fig. 13. A sliding stone as it was found in 2024, at the Troldklippe sliding track. Photo: F. Kaul.



On the lower ground where the sliding track terminates, we found a sort of grinding stone, with polished surfaces, measuring 35 x 20 x 9 cm (Fig. 13.). This find is supplemented by half of such a stone and a smaller fragment, also smoothly polished. At Slamreberg, we saw such a stone in use (See Fig. 7), and consequently the purpose of these stones is easily recognizable: They are sliding stones used for boosting speed when gliding down the rock. They give evidence of the (last) use of the sliding track, probably not so long ago.

Lille Hallegård, Østermarie Sogn, Borholm

This site was reported to Bornholms Museum some years ago, by a former owner of Hallegård. Furthermore, the fertility improving capacities are apparently known. Before visiting the site in April 2024, we met a resident at the farm. Immediately, before we asked any questions, she told us that the rock, which we were going to visit, was the very rock where women had improving chances for getting pregnant, when sliding down the track.

After having obtained this important information, a walk, through fields and meadows, was required before reaching the Hallegård sliding track. Even though situated almost one km. from the farm, in former times the place was not that isolated. Parts of old road systems are passing close to the rock just beneath the rock. The sliding track is situated in a relatively open forestry situation, not far away from wetland area. The length of the Hallegård sliding track is 6,8 m. It is 31-38 cm wide, though max. 0,43 m wide lowermost. A central part of the track, midway down the slope, is particularly well polished. The track forms a distinct hollow. The track is very steep; it falls at an angle of about 40 degrees. It faces E. (Fig. 14.).

About one meter from the sliding track, at its lower part, two cup-marks, close by each other, were identified.



*Fig. 14. The Hallegård sliding track.
Photo: F. Kaul.*

At the sliding track, three fragments of grinding stones were found: Sliding stones used when gliding down the track (see Fig. 7). They give evidence of the (last) use of the sliding track, probably not so long ago.

Close to the Hallegård sliding track, some notable quartz veins raise from the granite surface. The quartz veins appear as waving bands, 2-4 cm. higher than the granite surface proper (Fig. 15.). The much harder quartz stands out much higher, due to the weathering of the surrounding softer granite. The sliding track runs over some of the quartz veins, and here the hard veins are polished down to the 'granite level'. Although these quartz veins represent a (well known) geological phenomenon, it may not be totally dismissible that these (mysterious) snake-like patterns or figures could



Fig. 15. Although being a phenomenon of nature, the snake-like quartz veins might have enhanced ideas of some magic related to the Hallegård sliding track. Photo: F. Kaul.

have had an impact when deciding where to place the sliding track?

Hammeren at Sandvig, Allinge-Sandvig Sogn, Bornholm

The sliding track was found in 2003 by Mogens Jensen, Bornholms Museum. It is situated in an old stone quarry. The rock material on each side of the track has been cut away and removed so that it stands apart like a sort of causeway inside the quarry (Fig. 16.). For some reason – veneration or considering the (illness) consequences related to the destruction of sacred stones – the sliding track remained unharmed standing out as an artificial highway. The stone material has been cut away both north and south of the track. We do not know when this part of the quarry was left, leaving the track unharmed, though probably at the close of the nineteenth century. Although the stone masons more than hundred years ago must have known and respected the

Fig. 16. The lower part of the Hammeren sliding track, Bornholm. In an odd way, it appears as on a longitudinal pilar, created by the quarry work. Photo: F. O. Nielsen.



track, we have not yet found any further local knowledge related to the track.

The length of the Hammeren sliding track is 6,5 m long, and it is 25-45 cm wide. It falls at an angle of 22-25 degrees. It faces E.

The use of the sliding tracks

Above, seven Bornholm sliding tracks are presented, supplemented by folklore accounts related to the destroyed Kjøddesten. In Denmark, outside Bornholm, a few larger glacial erratics have been used for sliding, by children, for fun, such as Havrum Søsten at Horsens, East Jutland (Lidegaard 1994: 25). Here, the smooth surface, used by children, was not created by human hands, but by the ice of the last glaciation. As we shall see, we are facing a phenomenon with a larger geographical distribution. The recorded Bornholm sliding tracks are not something isolated or accidental, but are part of a broader, common tradition. In three cases (Myreby, Klintebakken and Hallegård), traces of fertility magic are recorded. When gliding down the track the potential for getting pregnant seems to be improved. The evidence from Kjøddesten yields further folklore evidence, probably related to initiation rites, from childhood to adolescence, perhaps even with a touch of fertility magic. However, the most common denominator as to the use of the Bornholm sliding tracks is “for fun”, and children’s play.

In three cases (Slamrebjerg, Troldklippe and Hallegård), the use of gliding stones can be connected to the tracks. At Slamrebjerg, a gliding stone is and was used regularly (Kjøller 1961), while at the other two sites, only the gliding stones found at the track give evidence of their use.

In Late 2024, we were searching for a sliding track at Klinten in Paradisbakkerne, assisted by two elderly siblings, Peter and Inger, now at an age at 80-90. The precise place was not found (this time); but they provided us with some interesting information as to its use. They told us that their

grandparents said that when young, they used the sliding track. The grandfather used his clogs as a gliding devise, but gliding stones were also used. For Peter's and Inger's grandparents it was a bit dangerous; but that was the whole point: It was funny because to drive down the steep slope was dangerous. Even from Nexø, 2,5 km from Klinten, young people came to use the Klinten sliding track. Perhaps Klinten 'took over' after the Kjøddasten at Nexø was demolished?

Thus, the use of gliding stones was not uncommon. This is corroborated by the folklore accounts related to Kjøddasten: "At a time, it was an established tradition that the confirmands met at the stone on the very celebration day, having fun sliding down its slanting surface, sitting on a loose stone." (DFS 1906/23 top 674 (b) (This is called to "*kjøre rawkana*").

The use of gliding stones raises some questions. To what degree has this use shaped the sliding tracks as they appear today? Even though an original start and planning should be considered, where some tedious work polishing the course of the track was needed, later use may have obliterated the primary track work. – Were the gliding stones part of the original package? – Were such grinding stones the original grinding stones?

And for the archaeologist: What about chronology? – When were these sliding tracks created? – No clear clues can be presented, though an origin in Pre-Christian times may seem applicable.

After examining the Swedish and Italian sliding tracks, we shall return to the chronological issues.

The sliding tracks, Sweden

In neighboring Sweden, research and documentation work has been in progress for some years (Hermodsson 1995; Wikell et al. 2016 a; Broström et al. 2021). It was in particular the Swedish investigations and re-

search which prompted us to carry on with our own explorations.

Today, more than 50 sliding tracks are known from Sweden, with a length from about one meter to 20 meters. The Swedish word for these tracks is "*hällkanor*" meaning "rock sledges". Most of the Swedish tracks have been recorded in eastern Central Sweden, in the landscapes of Uppland, Södermanland and Östergötland, about 600 km north of Bornholm. The northernmost of the recorded "*hällkanor*" is from Gävle in Gästrikland, about 800 km north of Bornholm (Wikell et al. 2016 a).

Closer to Bornholm is Skrehallarna in Småland, a track with a length of 2,4 m. The name is close to the Bornholm word "*Skrehald*", meaning "sliding or falling rock" (Rohmann 1950-51), as for instance related to the Store Gadegård track. Even closer to Bornholm, at Ivetofta, NE Scania (at Kristansstad), a sliding track has been recorded, 1,8 m long. Its name is Branthalla, meaning "steep rock" (Wikell et al. 2016 a).

At Skrea Kyrka, Halland, at the west coast of southern Sweden, at Falkenberg, an 8,7 m long sliding track was discovered in 2017, by Kenneth Ihrestam and Sven-Gunnar Broström (Fig. 17.). In Bornholm dialect, the sliding tracks are called "*Skrebaner*". It has been proposed that the nearby church (and parish) has got its name from the sliding track (personal communication with Sven-Gunnar Broström). In 1467, the placename is mentioned as "*skrede*", then later, the name "*Skrea*" was used. Both "*Skrede*" and "*Skrea*" mean something referring to 'sliding'. In the Halland placename register, it is suggested that the word refers to sliding soil, windblown sand drift, windblown sliding dunes (Sahlgren 1950: 214). Nevertheless, we shall not exclude, with Broström, that the 'sliding-name' refers to the sliding track at Skrea Kyrka.

In Sweden, as on Bornholm, the smooth polished surface of the sliding tracks (*hällkanor*) is easily distinguished from the coarser and weathered rock. At optimal



Fig. 17. The sliding track at Skrea Kyrka, Halland, Sweden. The sunlight is superbly reflected by the mirror-smooth surface of the track. Photo: S.-G. Broström.

sunshine conditions the track stands out as an intense line of light, almost as lightning running down the slope, in an open landscape recognizable from a certain distance (Wikell et al. 2016 a: 138). The polished stretches are often free of lichens and moss, since this kind of vegetation has difficult to fasten on such smooth surfaces (Broström & Ihrestam 2020: 35; Broström et al. 2021: 45). The tracks were created when ancient people polished the rock by stones of a suitable size, and easy to handle: “*Man har valt stenar som är lätta att greppa med en eller två händer. Vi har i flera fall i Sörmland funnit skurstenarna vid foten av kanorna*” Wikell et al. 2016 a: 167). Such stones found at the foot of the tracks can be understood

as polishing stones in their own right (Broström & Ihrestam: 2020: 35; Broström et al. 2021: 45). Nevertheless, the Bornholm evidence, folklore as well as recent observations, has demonstrated that when sitting on the stone, here turned into a gliding stone, you can increase your gliding speed considerably, as seen at Slamrebjerg (See Fig. 7, 8 & 21).

From Sweden, the folklore evidence is scanty, with some references to children’s play, (Wikell et al. 2016 a). Only rarely, a practice where women were sliding down the tracks in order to improve fertility is mentioned, but with no direct site reference (Hermodsson 1995; Goldhahn 2005; Wikell et al. 2016 a; Wikell et al. 2016 b). From Bohuslän, western Sweden, a tradition is recorded that women used to slide down such rocks in order to get fertile (Hermodsson 1995: 15-16; Wikell et al. b: 15). The reference to a Bohuslän tradition may be related to a sliding track at the famous Lövåsen rock carving site, Tanum Parish (Fig. 18.). This sliding track, however, is a purely natural phenomenon, the smooth hollow of the steep track was created by water flow erosion, perhaps starting at the end of the last glaciation period, and thus without any human interference. Nevertheless, the fertility helping capacities of this particular track is well known at Tanum, locally, as a living tradition today. And we have even heard of a most successful outcome of the use of the Lövåsen track, during the last decades, among students studying the rock carvings (Of course, just told in a joking manner!).

As with the Bornholm sliding tracks, chronology and dating is a problematic issue. Many of the Swedish tracks are closely related to Bronze Age rock carvings, cupmarks, ships and horse figures. However, in Sweden, there are some examples where the tracks are running over the rock carvings, the tracks consequently created later than these rock carvings At Sorunda and Slagsta, Södermanland, Late Bronze Age ship figures are partly obliterated by sliding tracks (Broström et al. 2021: 46; 172-175



Fig. 18. A sliding track created by nature, though related to fertility magic. In the track (darker by water flow), Late Bronze Age ship rock carvings. Lövåsen, Tanum Parish, T-322, Bohuslän, Sweden. Photo: G. Milstreu & F. Kaul.

& 205). But how much later? – a few days, or hundreds of years? – Could the emergence of sliding tracks be related to a (late) Bronze Age tradition in some way using or respecting the sanctity of the rock carvings. On the other hand, it is noted that some of the tracks have no connection with rock carvings and cup-marks. In some cases, the closest prehistoric monument is a Late Iron Age/Viking Age cemetery, or a track is located at a Medieval church (Wikell et al. 2016 a; Broström & Ihrestam 2020).

If the name Skrea (Kyrka), Halland (1467: *Skrede*) refers to the nearby sliding track (and not sliding grounds of sand-dunes (Danish: *jordskred*) (Sahlgren 1950)), then it may have given name to church (and parish), thus indicating a Pre-Cristian date and use, the evidence though of circumstantial character.

Sliding tracks, the Italian Alps

Südtirol/Alto Adige

In the Alps, there are several sliding tracks, of exactly the same shiny, polished appearance as in the North (Rütimeyer 1928; Hermodsson 1995). In Südtirol/Alto Adige one particular site, Castelfeder, at the upper Adige/Etsch river valley, near the town of Auer, is worth highlighting. The Castelfeder sliding track, situated at a Medieval castle ruin, overlooking the Adige River, has a length of 3 m. and a width of about 30 cm, shiningly polished into the hard porphyry rock (Hermodsson 1995; *Castelfeder.info*).

The Castelfeder track is closely related to cup-marks (also a well-known phenomenon of the Alps). Some of the cup-marks at Castelfeder, and at another sliding track at Elvas, near Brixen (Südtirol), were obviously already made when the polished surface was established, the polishing thus younger than the cup-marks (Hermondsson 1995: 384).

The Castelfeder track incorporates folklore evidence related to fertility magic and rituals, representing the popular tradition of the Alpine tracks that women used to slide down these rocks in order to get fertile (Hermondsson 1995: 386). Words like "*Fruchtbarkeitsrutsche*" is used for the Castelfeder track; even today we hear that sliding down the track can result in the arrival of a much earned-for baby (*Castelfeder.info*). Also, the Elvas sliding track is related to fertility. "*Die Rutschbahn*" was used by women who wished to become pregnant.

Sliding tracks are also known from Switzerland and France (Alsace). Although the slid-

ing tracks are used most for fun by children (Rütimeyer 1928: 164), the fertility effect of gliding down the rock is mentioned, though generally, where the power of the stone passes into the female body: "Es ist der direkte Kontakt des weiblichen Körper mit dem Fels oder Stein, dem man direkt oder dem im dem im Fels wohnenden Wesen erzeugende Kräfte beimass, der zu diesen Riten Anlass gab." (Rütimeyer 1928: 182).

At the lower part of the Castelfeder sliding track, a cross has been carved. At the sliding track of Elvas, at Brixen (also Südtirol), two cross figures have been carved. The site of Elvas is called Kreutzplatte or Kreutzstein, also because of a wooden cross was erected there. At Niederbronn, Alcase, France, there are two carved crosses. "The purpose of all these crosses in all these places probably was to conjure down pagan witchcraft associated with the place." (Hermodsson 1995: 386). If such crosses represent a Christianization of a site with pagan roots (a common phenomenon, for instance

crosses carved on Breton menhirs), then such tracks must be older than a strong Christian wish to take over or neutralize the power of the site.

Valcamonica, Lombardy

In the Alpine valley of Valcamonica, amongst the richest area of rock carvings in Europe, quite some sliding tracks have been recorded at some of the most famous rock carving sites. The sliding tracks are called "*scivoli di pietra*" (sliding rocks (ski-fly rocks)) (Fossati 2001). As elsewhere, the sliding tracks stand out, at fine photo opportunities, formidably reflecting the beams of the sun (Fig. 19.).

Examples of Valcamonica sliding tracks (*scivoli di pietra*) are seen on rock 1 and 50 in Parco Nazionale di Naquane, on rock 1, 2 and 3 Foppe di Nadro, at Paspardo, on rock 5 at Campanine di Cimbergo, on rock 17 Bedolina at Capo di Ponte (Fossati 2001) and on rock 12 on the Seradina I rock carving site at Capo di Ponte (Marretta 2018).

Fig. 19. A sliding track, *scivolo*, at Pisogne, just south of the Valcamonica valley, at the eastern shore of Lago d'Iseo. Photo: A. Maretti



The folklore evidence related to the Valcamonica sliding tracks is limited. Today, sliding on the rocks is done for fun rather than ritual, and references as to fertility sliding are found outside Valcamonica (Fossati 2001: 105 & 109). However, one rock carving site with a sliding track, at Paspardo, might in its name yield some religious references. The rock is called *Rocce del diavolo*; but the track itself is called "*Bröscaröla del Diaol*" (local dialect, meaning The Devil's Slide) (Fossati 2001: 104-105). Are we dealing with a 'name-change' making the use of this track during victorious Christianity diabolic and dangerous?

As with the Nordic sliding tracks, chronology and dating is a problematic issue. In some cases, the cavity of a sliding track has partly eradicated what must be older rock carvings. Of interest is finding the latest rock carvings (of the very long Valcamonica rock carving history), where a sliding track has polished down such (older) motifs. On rock 50 at Naquane, the motif of two opposed warriors is partly obliterated by a sliding track (Fossati 2001: 105). These warrior motifs are generally dated to the Iron Age, the last five-six centuries BC (Zanetta 2009: 285). Of typology reasons (body shape and armour), these Naquane warrior figures are placed in the first century BC (Fossati 2001: 105), although a couple of centuries pushback is not impossible. Accordingly, this example seemingly demonstrates that the sliding track activity cannot belong to a period prior to the latest prehistoric epoch; they could belong to the Roman period, but rather to a more recent period (Fossati 2001: 105 & 109).

Recently, the Valcamonica sliding track dating has been re-considered, again with reference to the (well-known) opposing or dueling warrior motif, Late Iron Age. On rock 12 of the Seradina I carvings, at Capo di Ponte, the opposing warriors are closely related to two parallel sliding tracks. Although the creation of one of the sliding tracks has caused the disappearance of parts of the left warrior, it is suggested that some interplay between the rock carvings

proper and the sliding tracks took place through time (Maretta 2018: 206): The two parallel sliding tracks seem to be part of the whole composition, and the *scivoli* somehow being active at the time of the incision of the warriors, here with square and empty bodies, which, for many converging reasons, should be dated between the fourth and first century BC (personal communication, Alberto Maretta). And then, in the aftermath of this creative process, the sliding tracks were re-polished and used again and again. To some extent, we are facing the same problems concerning the 'Bronze Age rock carving location' of some of the Swedish sliding tracks.

Conclusion

In the present article, we have followed the sliding tracks, from the Danish island of Bornholm to the North, to Sweden; then to the South, to the Italian Alps. In the different languages and dialects, they are named: *Skrebaner*, *røvkaner*, *hällkanor*, *Gleitsteine*, *Rutschbanen*, *scivoli di pietra*, *bröscaröla*, *glissades*.

They all share some basic characteristics: Polished surfaces shining in the sun, a certain angle of the rock enabling to slide down the polished tracks. Folklore and practice in each region: just for fun, mostly for children, but also distinct relations to fertility magic, improving the possibility of getting pregnant: "*Fruchtbarkeitsrutsche*".

Another common denominator is the chronological problems. In Sweden, Södermanland, there are examples where the tracks are running over cup-marks, ships and horse figures. The ship figures are partly obliterated by a sliding track. Some of the ships carry a highly raised keel extension, giving a Late Bronze Age date, probably 1100-700 BC. Consequently, the sliding track must be later than that. But how much later? Could there have been some interplay between making of the rock carvings and the sliding tracks, where the two phenomena were closer related in time, as suggested for the Italian Valcamonica (Seradina) Pre-Roman

Iron Age opposed warrior figures. We could close the discussion and simply conclude that the tracks are (perhaps much) younger than these rock carvings: Thus, for Sweden, the sliding tracks are later than a (not precise) Late Nordic Bronze Age date, and for Italy they are later than 400-0 BC, partly obliterating warrior figures at Seradina and Naquane.

When it comes to the other end of the time bracket for the creation of the sliding tracks, we are facing somehow circumstantial evidence. In Sweden, Halland, the name of the church and the parish, Skrea church, may have got its name from the sliding track (Bornholm dialect: *Skrebane*). If this is the case, the sliding track must have been known (and used) before the Medieval church was built.

In Südtirol, Italy, there are examples where crosses have been carved close to the sliding tracks, Castelfeder and Elvas. If these crosses represent a Christianization of a site with pagan roots, then such tracks must be

older than a strong Christian wish to take over or neutralize the power of the site. This does not necessarily imply that the tracks in the Alps are older than early Christianity. In Valcamonica, at Cemmo, there is archaeological evidence which indicates that a prehistoric menhir sanctuary was deliberately destroyed as late the eleventh-twelfth century AD (Kaul 2006: 43-44 & 48).

Altogether, both for Scandinavia and Italy, a pre-Christian beginning and early use of the sliding tracks seems probable. If the sliding tracks were a Christian innovation, then one should expect that they were mentioned in written sources related to a Christian practice, instead of being demonized, related to the devil.

More research is needed on this remarkable ancient monument type, which somehow unites South Scandinavia and the Alpine regions. Furthermore, the Bornholm sliding tracks should be included and registered as protected ancient monuments in their own respect, by the Danish authorities,

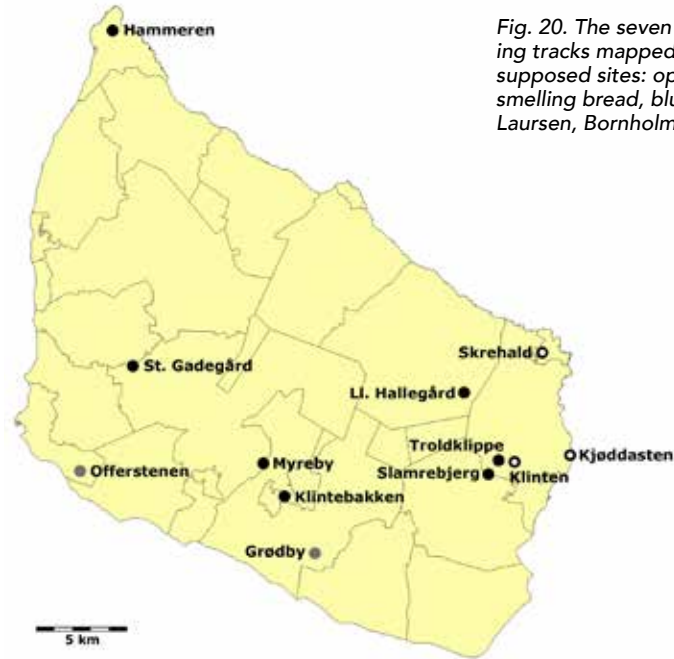


Fig. 20. The seven Bornholm documented sliding tracks mapped: full circles. Destroyed and supposed sites: open circles. Standing stones smelling bread, blue circles. Drawing by René Laursen, Bornholms Museum.

Fig. 21. Lars Kofoed Rømer, sliding down the Slamreberg track.
Photo: F. Kaul.



"Slots- og Kulturstyrelsen" (The Agency for Culture and Palaces). This has happened in neighboring Sweden, where "Riksantikvarämbetet" (The Swedish National Heritage Board) has registered the sliding tracks as protected ancient monuments (in the category: rock carvings, subtype: polished surfaces (Swedish: *Slippytor*).

With the most recently obtained documentation of the seven Bornholm sites (Fig. 20.), we can learn from our Swedish neighbors and bring about the formal protection process of ancient monuments.

Let our story end where it began: The Bornholm sliding tracks in use, Klintebakken (See fig. 1), and the Slamreberg track in use, here by one of the authors, at full speed connecting the past with the present (Fig. 21.).

Acknowledgements

Warm thanks to our colleagues in Sweden and Italy (Valcamonica) for sharing information on this peculiar monument type. Special thanks to Sven-Gunnar Broström and Alberto Maretti.

The authors

Flemming Kaul

Senior researcher, dr.phil.

Prehistory, Middle Ages and Renaissance

The National Museum of Denmark

Finn Ole Nielsen

Senior Researcher, Dr. H.C.

Former leader of the archeological department

Bornholms Museum

Lars Christian Kofoed Rømer

Anthropologist, Ph.D.

Co-owner of Sansåga Aps, Bornholm

Gerhard Milstreu

Museum Director, Dr. H.C.

Tanums Hällristningsmuseum, Underslöv.

literature

Broström, S.-G. & Ihrestam, K. 2020. Hällristningar i Västmanlands län. Länsstyrelsen i Västmanland, Halmstad.

Broström, S.-G.; Ihrestam, K. & Wikell, R. 2021. Hällristningar i Södermanland – Södermanlands Län och Södra delen av Stockholms Län. Botark & Länsstyrelserna i Södermanland och Stockholms Län, Halmstad.

DFS 1906/23 top 641 (a). Dansk Folkemindesamlings Arkiv. Collector Aage Rohmann 1930.

- DFS 1906/23 top 641 (b).** Dansk Folkemindesamlings Arkiv. Collector Wilhelm Kofoed 1932.
- DFS 1906/23 top 674 (a).** Dansk Folkemindesamlings Arkiv. Collector Aage Rohmann 1931.
- DFS 1906/23 top 674 (b).** Dansk Folkemindesamlings Arkiv. Collector Aage Rohmann 1932, told by A. Jensen.
- DFS 1907/23 top 683.** Dansk Folkemindesamlings Arkiv. Collector Wilhelm Kofoed 1927.
- DFS 1907/23 top 684.** Dansk Folkemindesamlings Arkiv. Collector Aage Rohmann 1944.
- Eriksen, P.** 1990. *Samsøs Store Stengrave*. Forlaget Skippershoved, Højbjerg.
- Fossati, A.** 2001. Il ruolo dell' etnografia nell'interpretazione dell' arte rupestre della Valcamonica. *Notizie Archeologiche Bergomensi* 9, 2021: 91-111.
- Goldhahn 2005.** Slagsta revisited – en essä om behovet av subjektivt tolkande dokument. In (Goldhahn, J.; ed.), *Mellan sten och järn*. Rapport från det 9:e bronsålderssymposiet, Göteborg. Gotarc Serie C. Arkeologiska Skrifter no 59, Göteborg: 581-598.
- Hermodsson, Ö.** 1995. A certain type of rock carving – traces of cult and other activities? In: (Helskog, K. & Olsen, B., eds.), *Perceiving rock art. Social and political Perspectives*. ACRA. The Alta Conference on Rock Art, Alta: 378-388.
- Kaul, F.** 2006. Udgravninger ved helleristninger. Oversigt, diskussion, perspektiver. *Adoranten* 2006: 28-49.
- Kaul, F.** 2020. Dyvelstenen, Sacred Stone on the Island of Samsø, Denmark – History, Myths and Cult. *Adoranten* 2020: 41-56.
- Kaul, F.** 2021. Dyvelstenen ved Nordby på Samsø – en indholdsrig helligsten: Fortællinger fra mikrokosmos til makrokosmos. In: (Nymark, A., ed.), *Samsø, et Sted af Betydning*. Studier i Samsøs Arkæologi og Historie vol. 1. Samsøs Museumsforening, Tranebjerg: 297-326.
- Kaul, F. & Nielsen, F. O.** 2021. A newsletter from the rocks: To place a fire – now with Bornholm evidence. *Adoranten* 2021: 127.
- Kaul, F.; Nielsen, F. O.; Pihl, A.; Kofoed Rømer, L.C. & Østergaard Sørensen, P.** 2022. To deposit a fire – during the Bronze Age and in the present. *Adoranten* 2022: 35-56.
- Kjøller, F.** 1961. Slamrabjerg. *Jul Paa Bornholm* 1961: 10-15.
- Lidegaard, M.** 1994. *Danske sten fra sagn og tro*. Nyt Nordisk Forlag Arnold Busck, Copenhagen.
- Marretta, A.** 2018. *La roccia 12 di Seradina I. Documentazione, analisi e interpretazione di un capolavoro dell'arte rupestre alpina*. Comune di Capo di Ponte, Capo di Ponte.
- Nielsen, F.O.** 2006. *Fortidsminder på Bornholm*. Bornholms Regionskommune, Rønne.
- Rohmann, Aa.** (ed.) 1950-51. *Bornholms Stednavne 1-2*. Udgivet af stednavneudvalget, Copenhagen.
- Rütimeyer, L.** 1928. Über Schalen und Gleitsteine im Kanton Wallis und ihre Bedeutung. *Schweizerisches Archiv für Volkskunde* 28, 1928: 145-192.
- Sahlgren, J.** 1950. *Ortnamnen i Hallands län 2. Bebyggelsenamn i mellersta Halland (Årstads och Faurås Härader)*. Kungl. Ortnamnskommisionen, Lund.
- Schmidt, A.F.** 1928. Brandtræer og Ulykkes-træer. *Danske Studier* 1928: 54-76.
- Schmidt, A.F.** 1933: *Danmarks Kæmpesten i Folkeoverleveringen*. Danmarks Folkeminder Nr. 39, 1933, Copenhagen.
- Thorsen, P.** 1931. *Vor Hjemstavn. Spredte Skildringer fra Bornholms Sydland*. Henry Andersen, Aakirkeby.
- Wikell, R.; Ihrestam, K. & Broström, S.-G.** 2016 a. Hällkanor. Aktuellt forskningsläge. In: (Alexandersson, K & Pappmehl-Dufay, L., eds), *Fortid längs Ostkusten 4, Blankholmseminariet år 2012–2014*. Tjustbygdens Kulturhistoriska Forening, Nomen Förlag, Västerviks Museum, Västervik: 163-202.
- Wikell, R.; Broström, S.-G. & Ihrestam, K.** 2016 b. Hällkanorna i Haninge. *Glimtar från Haningebygden* 35, 2016, nr. 2: 14-15.
- Zanetta, M.** 2009. La figura dell'armato; analisi tipologica e ipotesi interpretative. In: (Sansoni, U. & Gavaldo, S.; eds.), *Lucus rupestris. Sei millenni d'arte rupestre a Campanine di Cimbergo*. Archivi, Monografie di preistorica, di arte preistorica tribale, vol. 18. Centro Camuno di Studi Preistorici, Capo di Ponte: 283-290.