

## Evidence of excellence: re-assessing the status of Neolithic long-blades in Scandinavia

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### ABSTRACT

The introduction of Neolithic long-blades in Scandinavia is tangent with the establishment of the earliest farming communities, i.e. the Funnel Beaker culture, yet the production of long-blades continued throughout the Middle Neolithic period (3300–2350 cal BC). This paper aims to further enrich our understanding of the 3<sup>rd</sup> millennium BC in Scandinavia by focusing on the occurrence and significance of long-blades. A re-assessment of the archaeological record from Norway has identified eight sites with long-blades and five settlement sites where the presence of long-blades was indicated by blade fragments and formal tools. In Scandinavia and northern Germany 41 long-blade deposit sites, comprising a total of 529 blades, are known. Based on the contexts in which the long-blades occur, it is argued that the Scandinavian long-blades played a central part in the everyday lives of both Neolithic farmers and Sub-Neolithic foragers – but for different reasons, e.g. hunting tools, weaponry, and harvesting equipment.

### KEYWORDS

Neolithic, long-blades, Scandinavia, lithic technology, mobility

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### Introduction

The introduction of lithic long-blades in the archaeological record in Scandinavia is tangent with the presence of the earliest farming communities, i.e. the Funnel Beaker culture (TRB) (3900–2600 cal BC), but the production of long-blades continued throughout the late Middle Neolithic (2800–2350 cal BC), a period characterized by the Corded Ware culture (CWC), until the Late Neolithic (2350–1800 cal BC) when there was a transition from blade to flake production combined with bifacial retouch, a technological change attributed to influences from the Bell Beaker culture (BBC) (Ebbesen 1980; 1982; Sørensen, Karg 2012; Iversen 2014; Glørstad, Sundström 2014; Prescott 2014). However, also present within the same chronological framework as the TRB and CWC were communities practising a predominantly foraging economy. In Denmark and Sweden this group is known archaeologically as the Pitted Ware culture (PWC), named after its characteristic pit-ornamented pottery, while in Norway it has been referred to as the Cord Stamp culture (*Snorstempelkeramisk kultur* [SNS]) because of its consistent use of cord stamp decorations on locally produced pottery (Olsen 1992; Edenmo et al. 1997; Østmo 2010). Other artefact categories associated with the PWC and SNS are cylindrical blade cores and tanged points made from straight and self-pointed blades (Becker 1951). The identity of the PWC has proven hard to grasp archaeologically due to extensive regional variations in the material culture, but according to radiocarbon dates recently published by Katie Manning and



*Fig. 1. Long-blades from the Norwegian sites of Nordlien (above) and Bjørkestøl (below). The longest crested blade from Nordlien measures 15.2 cm (photo by S.V. Nielsen)*

*Обр. 1. Дълги пластини от обектите Нордлийн (горе) и Бьоркестол (долу) в Норвегия. Най-дългата пластина-гребеняк от Нордлийн е с дължина 15,2 см (снимка С. Нилсен)*

colleagues, the PWC horizon belongs to the period 3637–2257 cal BC (Manning et al. 2014). In southern Norway, however, the foraging culture (SNS) continued to exist throughout the Early and Middle Neolithic, though influences from southern Scandinavian farming communities are evident throughout this time span.

Although archaeological ‘cultures’ have proven indispensable for discussions of broad-scale developments and trends as they appear in the archaeological record in Scandinavia, these structures undoubtedly represent a simplified view of prehistoric societies, as ‘cultural elements’ from each group are not so easily distinguishable on a regional scale (Bakka 1973; Iversen 2010). In Norway, for instance, the presence of the CWC is indicated by a few single graves and single artefacts, i.e. stray finds known from secondary contexts (Mikkelsen 1975; Prescott 2014). Significantly, these single artefacts seem to occur within a ‘world’ dominated by the SNS as it has been documented on coastal as well as inland and mountainous settlement sites (cf. Indrelid 1994; Østmo 2008). The aim of this paper is to further enrich an understanding of the 3<sup>rd</sup> millennium BC in Scandinavia by focusing on the occurrence and significance of lithic long-blades. I will present the status of the archaeological record and discuss the cultural affiliations of these artefacts, with emphasis on Norwegian finds (fig. 1).

## Theory

The terminology of lithic long-blades, as used in recent studies, is heavily biased by the formation of the archaeological record in various regions of Europe and the Near East (Manolakakis 2008; Ivanova 2012). In this article, the term long-blade refers to blades measuring 8–10 cm or more in length (Knutsson 2014), while super-blades are blades measuring more than 25 cm in length (Gurova 2016). However, it should be noted that even such exceptionally long specimens do occur regularly in contexts with long-blades as well as smaller sized blades and blade fragments.

If we ignore the rare yet still remarkable cases of Mesolithic long-blades produced by direct percussion or indirect percussion technique (cf. Sørensen, Sternke 2004; Sjöström, Dehman 2010), consistent production of regular long-blades is primarily a Neolithic phenomenon in Scandinavia. Several authors have stressed the connection between long-blade workshops and regions in Europe rich in flakeable and homogeneous stone (Barfield 2004; Pelegrin 2006; Gurova 2012). Thus, it makes sense that workshops were established also in southern Scandinavia, where primary and secondary natural deposits of high quality Senonian (Maastrichtian) flint was abundant (Högberg, Olausson 2007). Prehistoric workshops have not yet been discovered in Scandinavia and the blades are known primarily from isolated deposits or hoards, most of which have been discovered coincidentally by laymen during the 19<sup>th</sup> and 20<sup>th</sup> centuries. The impressive craftsmanship involved in the production of these artefacts and the non-rational depositional behaviour has given rise to a mystical subtext of the long-blades. Jacques Pelegrin (2006) has pointed out the ‘remarkable inventiveness’ of the lithic craftsmen regarding the sophisticated production techniques, while Torben Ballin (1999) has described the Scandinavian long-blades as constituting the ‘swan song’ of blade technology. Interestingly, these perceptions are in line with the anthropological definition proposed by Alfred Gell of art objects, as “... objects which demonstrate a certain technically achieved level of excellence, ‘excellence’ being a function, not of their characteristics simply as objects, but of their characteristics as made objects, as products of techniques” (Gell 1992, 43). I would suggest that this definition of art objects answers, at least to a certain extent, the question of why exceptionally long flint blades should be studied in the first place. Super-blades and long-blades are not ‘simply objects’, they are products of excellent craftsmanship, and thus they should be studied as such by archaeologists.

## Results

A re-assessment of the archaeological record from Norway has identified eight sites with long-blades, five of which were discovered in the collections of the Museum of Cultural History in Oslo and are previously unpublished (fig. 2). Blade cores attributed to the Neolithic long-blade concept were not identified. Four out of the eight sites represent isolated deposits or hoards comprising only blades, while in the other four sites long-blades were accompanied by various tools such as polished flint axes, tanged arrowheads of flint, and polished slate arrowheads. The slate arrowheads are of the type with rhombic cross section (cf. Nærøy 1994), while the flint arrowheads follow the typology developed by Carl Johan Becker (1951) where the PWC arrowheads are organized into four main groups (type A–D) according to the extent of retouch. However, the longest known specimens are of type C, up to 18 cm in length (Iversen 2016, 79). The Norwegian sites will be presented separately below (the numbers in parentheses are the unique database identifiers of the artefacts at the Museum of Cultural History in Oslo).



Fig. 2. Map of Norwegian sites mentioned in the text: Flekkerøy (a), Gimleveien (b), Bjørkestøl (c), Vestre Moland (d), Jortveit (e), Havnevollen (f), Nordlien (g), Sandnes (h), Sluppan (i), Tangval-Langbakken (j), Auve (k), Rødstøa (l), Mossikhuset (m). Black squares: isolated deposits. Red squares: settlement sites with long-blade deposits or tools (figure by S.V. Nielsen)

Обр. 2. Карта на норвежките обекти, споменати в текста: Флеккерой (a), Гимлевайн (b), Бьоркестол (c), Вестре Моланд (d), Юртвайт (e), Хавневолн (f), Нордлийн (g), Санднес (h), Слупан (i), Тангвал-Ландбакен (j), Аюван (k), Рьодстоа (l), Мосикхюсет (m). Черните квадрати представят изолирани находки. Червените квадрати са селища съдържащи дълги пластини (автор С. Нилсен)

*Flekkerøy* (C206703): Closed find coincidentally discovered by farmers at Flekkerøy, an island located south of Kristiansand in southernmost Norway. Two flint blades, the longest measuring 102 mm, and six blade fragments were discovered together with a thick-butted and polished flint axe, as well as two thick-butted rock axes. Detailed information concerning context and find location on the island is lacking.

*Gimleveien* (C27704): Closed find discovered during road construction at Gimleveien, on the eastern valley side next to the River Otra north of Kristiansand (fig. 3). In 1946, the discovery of two polished flint axes was reported to the Museum of Cultural History in Oslo and archaeologist Erik Hinsch performed a small-scale excavation at the site. His report, which my account is based on, remains unpublished but is available in the collections of the Museum of Cultural History in Oslo. The following artefacts were documented: 7 flint blades, the longest measuring 134 mm, 2 polished thin-bladed flint axes, 2 polished thick-butted flint axes, 2 exceptionally long slate arrowheads (180 and 175 mm in length), and a tanged arrowhead of flint (type C/D). Hinsch interpreted the site as a grave, though it should be noted that bones were not discovered.

*Bjørkestøl* (C26560): Closed find coincidentally discovered by farmers in a potato field at Bjørkestøl, on the northern valley side of the River Tovdal, northeast of Kristiansand (fig. 1). The blades, the longest of which measures 128 mm, were found grouped together. There were originally 22 blades, but only 19 were brought to the museum. A recent study found



*Fig. 3. Artefacts from Gimlevei. Top row: flint blades. The longest blade measures 13.4 cm (far left). Bottom row: thin-bladed axes, thick-butted axes, and slate arrow heads (photo by S.V. Nielsen)*  
*Обр. 3. Артефакти от Гимлевайн. Горният ред съдържа кремъчни пластини, от които най-дългата е 13,4 см (най-вляво). Долният ред съдържа брадви с изтънени остриета, брадви с удебелени основи и шистови върхове за стрели (снимка С. Нилсен)*

that blades from Bjørkestøl could be refitted with blades from the Nordlien deposit, a site located 82 km (straight line distance) further northeast (Nielsen 2017).

*Vestre Moland:* This find consisted of a single long-blade of Senonian flint, originally ca 100 mm long, and a polished thick butted stone axe with a hollowed edge. The artefacts were documented by the Norwegian archaeologist Elisabeth Skjelsvik, in the 1960s by photography alone, yet the artefacts did not receive a database identity number, and the whereabouts of the artefacts are currently unknown. The site was located somewhere in the region of Vestre Moland, a former municipality in Aust-Agder County, southernmost Norway.

*Nordlien (C27983):* Closed find coincidentally discovered by laymen while digging for sand at Nordlien, located on the southern valley side of the Sandnes fjord in Risør, southernmost Norway (fig. 1). There were originally 15 blades but only 12 were brought



Fig. 4. Long-blades from Mossikhuset, the easternmost site in Norway. The longest blade measures 12.4 cm (photo by S.V. Nielsen)

Обр. 4. Дълги пластини от Мосикхюсет – най-източният обект в Норвегия. Най-дългата пластина е 12,4 см (снимка С. Нилсен)

to the museum. The blades, the longest of which measures 152 mm, were found grouped together approximately 30–40 cm below the ground. As already mentioned, blades from this deposit could be refitted with blades from the Bjørkestøl deposit.

*Auve*: Closed find of 18 blades, the longest measuring 114 mm, found grouped together approximately 30 cm below the ground at a large settlement site in Sandefjord, eastern Norway (Østmo 2008). From the juxtaposition of the blades, it is likely they had been buried inside a container made of organic material which later decayed. Interestingly, the blades from the deposit represented the longest blades from the site; the average length of blades ( $n = 383$ ) from the site was 3.8 cm. The site was interpreted as a foraging dwelling site and was radiocarbon dated to the period 3340–2500 cal BC. However, Einar Østmo has pointed out that the radiocarbon dates from Auve concentrate around 2834 cal BC, and that this cluster indicates the most intense activity phase at the site (Østmo 2008, 164).

*Mossikhuset* (C31788): Closed find of three blades and one blade fragment, the largest of which measures 124 mm, found in a small crevice in a rural landscape at Mossikhuset, Østfold County in eastern Norway (fig. 4).

*Altern* (C20562/20565): Closed find containing a single long-blade (144 mm long), a thin-bladed polished flint axe, one thin-bladed flint axe, a polished flint axe with a hollowed and broad edge, and a flint sickle with bifacial retouch. These artefacts were found together under a large stone slab at Altern in Nordland County, northern Norway. This is the northernmost site in Norway with long-blades and probably represents an early Late Neolithic deposit (Gjessing 1945).

With one exception in the north, the Norwegian sites are in coastal landscapes geographically distributed from the Swedish border in the east, to the Kristiansand region in the southwest (fig. 5). Based on previous work by Klaus Ebbesen (1982) and Per Karsten (1994), there are now 38 long-blade deposit sites known in Scandinavia, with three more sites in northern Germany (fig. 4). In total they comprise 529 blades, the longest of which is a super-blade (28.5 cm) from the hoard at Høng on western Zealand, Denmark (Ebbesen 1982). Detailed information concerning flint types is currently lacking for most of the Scandinavian sites, but the known blades from Norway, as they have been presented here, are of Senonian (Maastrichtian) flint. Primary occurrences of Senonian flint are located at Stevns Klint and Møns Klint East on the east coast of Zealand as well as at the Thisted geological



*Fig. 5. Location map of 42 long-blade deposits from Scandinavia. Dark areas on Jutland and the Danish isles showing natural occurrences of Senonian (Maastrichtian) flint (figure by S.V. Nielsen)*

*Обр. 5. Карта на 42 обекта с наличие на дълги пластини в Скандинавия. Тъмните петна в Ютланд и датските острови показват естествени проявления на сенонски (маастрихтски) кремък (автор С. Нилсен)*

structure on northern Jutland, but secondary deposits also occur between these regions (Högberg, Olausson 2007). Per Karsten (1994) classified most of the Swedish long-blades as Senonian, except for Nymölla 1 where blades were made of Limhamn flint/Danflint (Lower Palaeocene) with origins in southwestern Sweden (i.e. Scania).

## Discussion

Ever since Errett Callahan's (1995) comprehensive study of long-blades from Swedish single graves, i.e. 106 blades from 53 graves, there has been a consensus in the scientific

community that two distinct technological flint blade traditions were practised in Sweden during the late Middle Neolithic (2800–2350 cal BC). One was the PWC that produced straight and self-pointed blades from cylindrical shaped cores, and the other was the migrant and ephemeral CWC, known in Sweden and Norway as the Battle Axe Culture (BAC), which produced curved blades from conical or semi-conical shaped cores (Callahan 1995; H. Knutsson 1995). Acknowledging that not a single blade core had been recovered from CWC/BAC contexts in Scandinavia, Callahan (1995) based his results primarily on an analysis of blade morphology combined with experience from modern flint knapping experimentation. Subsequently, the lack of blade cores and lithic manufacturing debris has even been recognized as a key aspect of the CWC in Scandinavia (Knutsson 2001; Edenmo 2008; Brink 2009; Larsson 2009). Helena Knutsson (2014) has argued that long-blades were produced by specialized craftsmen to be distributed as ready-made products within the newly established BAC communities in southern Sweden. However, there are indications in the archaeological record that the cultural affinity of the Scandinavian long-blade tradition is far more complex. Becker mentioned, apparently without receiving much attention, the occurrence of particularly long flint blades and cylindrical blade cores on the island of Anholt, located between Jutland and western Sweden in the Kattegat sea (Becker 1951; Vang Petersen 2004). According to Becker, some of the cores measured up to 21cm in length, and these had been found in contexts attributed to the PWC. Klaus Ebbesen (1982) associated the Danish long-blades primarily with the middle and late TRB, because hoards with long-blades occurred as secondary deposits in Megalithic grave mounds, attesting to a local continuation of ritual practices. In more recent times, archaeological investigations at the Auve settlement site in eastern Norway and Nymölla 1 in Scania have provided evidence of long-blade deposits at Sub-Neolithic foraging sites (Karsten 1994; Østmo 2008). As already mentioned, radiocarbon dates from Auve showed activity in the period 3340–2500 cal BC, while the Nymölla 1 site has been radiocarbon dated to 2900–2400 cal BC (Edenmo et al. 1997; Østmo 2008). A recent technological study of the long-blades from Bjørkestøl and Nordlien, southern Norway, found that these blades had been reduced from a cylindrical shaped core (Nielsen 2017). In other words, the contexts in which long-blades occur in Scandinavia provide ample evidence that these artefacts were part of the everyday lives of people with different economies and cultural traditions: late TRB farmers, newly arrived CWC/BAC communities, foraging PWC groups in Denmark/Sweden, and the SNS in southern Norway during the 3<sup>rd</sup> millennium BC.

Within the same coastal regions in southern Norway where the long-blade deposits were discovered, several settlement sites, each belonging to the SNS, can be identified where the material culture indicates the presence of long-blades. Examples of such sites are Tangval-Langbakken, Sluppan, Sandnes, Havnevollen and Jortveit (Bjørn 1930; Ingstad 1965; Stokke in prep.; fig. 2). At these sites, the presence of long-blades is indicated by thick blade fragments and formal tools, the latter most prominently by tanged arrowheads (fig. 6). The tanged points at Havnevollen (87 mm long), Jortveit (140 mm long) and Sluppan (113 mm long) are of Becker's type C. At the Havnevollen site, in addition to providing a rich inventory of lithic artefacts of late Middle Neolithic age, a single long-blade measuring 111 mm in length was also recovered. Significantly, tanged points have even been documented in Swedish single graves, of which a few will be mentioned here. The first example is Feature 106 from Kastanjegården in Scania which contained one arrowhead of type D (Brink 2009). The second is the grave from Sannagård in western Sweden where six arrowheads of type C/D were found grouped together at one end of the grave, presum-



Fig. 6. A selection of artefacts from Middle Neolithic foraging settlement sites in Norway exhibiting affiliations with long-blade technology. Tangval-Langbakken: type A tanged point. Sandnes: two type B tanged points and one type A. Havnevollen: long blade and type A tanged point. Sluppan: three type C tanged points (photo by S.V. Nielsen)

Обр. 6. Среднонеолитни артефакти от селища на ловци/събирачи в Норвегия, които показват връзки с технологията на производство на дълги пластини. Тангвал-Ландбакен: тип А връх с изтънена основа. Санднес: върхове с изтънена основа – два тип В и един тип А. Хавневолн: дълга пластина и връх с изтънена основа. Слупан: три : върха с изтънена основа тип С (снимка С. Нилсен)

ably placed next to the feet of the buried individual (Edenmo et al. 1997). A third grave is feature A120605 at Norra Hyllievång, also in Scania, where 11 arrowheads of type D were found organized in the same manner as at Sannagård, next to the feet (Lindhé, Grehn 2008). A pollen sample (*Cerealia*) from the grave at Norra Hyllievång was dated to 2290–2030 cal BC (3755±35 BP, Ua-33978), pointing to the early Late Neolithic (Lindhé, Grehn 2008, 16). This date was also indicated by the pottery (Malmer's type J) recovered from the graves at Kastanjegården and Sannagård, which placed them in a late phase of the BAC (Period 5), possibly around the Middle/Late Neolithic transition (Artelius, Thorsberg 1990). Tanged arrowheads of type C/D are also known from a few late single graves (2500–2250 cal BC) and late TRB stone packed graves in Denmark, but Rune Iversen (2016) has proposed that these arrowheads, because of the low number of arrowheads per grave and due to their anomalous positioning inside the archaeological features, rather than representing grave goods, were likely the buried individual's cause of death. It seems, then, that the cultural diversity

Country	Name	Blades	Longest mm	Shortest mm	Fint type	Period	Reference
NO	Altern	1	144		Senonian	MN B-SN	Hinsch 1955
NO	Bjørkestøl	22	128	77	Senonian	MN B	Unpublished
NO	Flekkerøy	2	102	94	Senonian	MN B	Unpublished
NO	Gimleveien	7	134	83	Senonian	MN B	Ingstad 1965
NO	Nordlien	15	152	98	Senonian	MN B	Unpublished
NO	V. Moland	1	97		Senonian	MN B	Unpublished
NO	Auve	18	114	49	Senonian	MN A-B	Østmo 2008
NO	Mossikhuset	4	124	9,7	Senonian	MN B-SN	Unpublished
SE	Anderslöv	1	167			N	Karsten 1994
SE	Tunnbindargränd	24			Senonian	MN A V	Lindälv 1964
SE	V. Alstad	1	52*			MNB	Karsten 1994
SE	Tryde	1	45*			TNC-MN All	Karsten 1994
SE	Vittsjö	6	140	100		MN B	Malmer 1962
SE	Löderup (RAÅ 32)	27	200	?	Senonian	MN B	Karsten 1994
SE	St. Köpinge				Senonian	MN B	Karsten 1994
SE	Nymölla I	5	119	6.2	Limhamn	MN	Karsten 1994
SE	Näsum	16	116	56	Senonian	MN B?	Karsten 1994
SE	Klippan	15	170	100		N	Salomonsson 1956
SE	Brunnby (RAÅ 215)	32	152	3.9	Senonian	N	Karsten 1994
DK	Bangsbostrand	52				MN A?	Ebbesen 1982
DK	Husted Mose I	14				MN A-B	Ebbesen 1982
DK	Husted Mose II	12				MN A-B	Ebbesen 1982
DK	Hemmet	14				MN A-B	Ebbesen 1982
DK	Boest Mose	21	98	38		MN A-B	Ebbesen 1982
DK	Bønnerup Kær	3				MN A-B	Ebbesen 1982
DK	Åstrup	2				MN A-B	Ebbesen 1982
DK	Trelleborg grube 107	14				MN III	Ebbesen 1980
DK	Høng	23	285	102	Senonian	MN A-B	Müller 1886
DK	Løjtvedgård	7				MN A-B	Ebbesen 1982
DK	Brodstrup Mose	4				MN A-B	Ebbesen 1982
DK	Borup Sø	5				MN A-B	Ebbesen 1982
DK	Ølseagle	1				MN A-B	Ebbesen 1982
DK	Valby Bakke	3				MN A (?)	Ebbesen 1982
DK	Veksø Mose	3	8	8		MN A-B	Ebbesen 1982

DK	Eggen Holte	2				MN A-B	Ebbesen 1982
DK	Gudhjem	3				MN A-B	Ebbesen 1982
DK	Jernkås	18				MN A-B	Ebbesen 1982
DK	Glud	(?)				MN A (?)	Ebbesen 1982
DK	Bygholm	4				MN A-B	Rønne 1979
D	Ehlers Moor	4				MN A (?)	Ebbesen 1982
D	Schalkholz	63				MN A-B	Bokelmann 1972
D	Kr. Rendsburg	63				MN A-B	Ebbesen 1982

*Table 1. List of 42 long-blade deposit sites including one site with only blade cores from Norway, Sweden, Denmark and northern Germany*

*Табл. 1. Списък на 42 обекта, съдържащи дълги пластини от Норвегия, Швеция, Дания и Северна Германия, включващ и един обект, който има само ядра за пластини*

that flourished in Scandinavia during the 3<sup>rd</sup> millennium BC did not endure without individually and probably also socially/ethnically motivating violence.

The combination of long-blades and tanged points seems to be a common phenomenon in southern Norway and the southern and western regions of Sweden. The artefacts occur in deposits and graves, as well as at PWC and SNS settlement sites. The graves in themselves are often organized as single graves, in the same fashion as within the CWC where bodies were buried in the hocker position, but the grave goods exhibit a clear affiliation with the PWC. However, a significant aspect of the Norwegian sites is the combination of long-blades and artefacts made of slate. Slate arrowheads occurred in the Gimleveien grave in Kristiansand (fig. 3) together with long-blades, polished flint axes of late Middle Neolithic age and a tanged point of type C/D. Slate arrowheads were also present at the Sluppan and Auve settlement sites. A unique deposit containing 17 polished slate arrowheads is also known from Rødstøa at Hurum in eastern Norway (Gjessing 1945). Except for Gotland Island, deposits containing slate artefacts are unknown in Sweden and Denmark (Nihlén 1927), but the hoard from Rødstøa should be considered a local expression of the same tradition that the long-blades were part of.

The contexts in which Neolithic long-blades occur in Scandinavia adhere to the cultural complexity that was present in these regions throughout the 3<sup>rd</sup> millennium BC (cf. Larsson 2004; Bergsvik 2006; Iversen 2010; 2016). It seems apparent that exceptionally long flint blades were highly prized both among foragers and farmers, and probably for different reasons. Foragers might have sought long-blades to produce outstanding hunting equipment or even tools for warfare (Iversen 2016), while farmers on the other hand might have needed the blades primarily for harvesting activities (K. Knutsson 1995). When compared to the various functions of the long-blades, they are nonetheless oversized in length and should be considered ‘show-pieces’ of their age (cf. Iversen 2016, 79). Thus, the concept of hoarding seems to be a fitting concept to facilitate the underlying behaviour that led to the formation of the long-blade deposits. During the Late Neolithic period (2350–1800 cal BC), the role of blades in the production of arrowheads and sickles lost its value in Scandinavia

due to the pan-regional transition to bifacial retouching, and thus the social reproduction of the excellent craftsmanship necessary to produce long-blades ceased.

## Conclusion

A re-assessment of the archaeological record from Norway has identified eight sites with long-blade deposits, and in Scandinavia and northern Germany there are now 41 known sites with a total of 529 long-blades. The contexts in which the blades occur indicate a complex cultural affiliation. In Scandinavia, long-blades are known to occur as secondary deposits in Megalithic graves (TRB), in single graves containing battle axes (CWC), and in contexts affiliated with the Sub-Neolithic foraging cultures in Denmark/Sweden (PWC) and Norway (SNS). The excellent craftsmanship needed to produce long-blades was reproduced throughout the 3<sup>rd</sup> millennium BC in Scandinavia, although the workshops have not been discovered. During the Late Neolithic period (2350–1800 cal BC) the practice and know-how of long-blades was replaced by a technology based on flakes and bifacial retouching, which eventually came to mark the end of the Neolithic long-blade tradition in Scandinavia.

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Свидетелства за съвършенство:  
преоценка на неолитните дълги пластини от Скандинавия

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(резюме)

Най-новите изследвания на процеса на неолитизация в Европа и Близкия изток показват убедителна връзка между налагането на произвеждаща икономика (земеделие и скотовъдство) като основна икономическа стратегия и производството на дълги кремъчни пластини. Тази статия преразглежда археологическите данни, свързани с неолитните дълги пластини от Скандинавия, като особено внимание е обърнато на археологическите обекти в Норвегия. Дългите пластини са дефинирани като пластини с дължина 8–10 см, докато терминът супер-пластини се използва за пластини, които се равняват или надвишават 25 см. Досегашните проучвания в тази област идентифицират осем обекта с дълги пластини в Норвегия. Те са разположени в близост до праисторическата брегова линия като най-източната граница е в близост до границата с Швеция, докато най-западното им разпространение е в района на Кристиансанд, който се намира в най-южната част на Норвегия. Четири от обектите съдържат колективни находки, състоящи се само от пластини, докато в останалите обекти пластините са придружени и от други сечива като полирани кремъчни брадви и върхове за стрели, направени от шишти. До момента са познати 41 обекта, съдържащи дълги пластини, от района на Скандинавия и Северна Германия, като общият брой на пластините е 529. Те са концентрирани в Ютланд и датските острови, докато в съседните райони на Южна и Западна Швеция, както и Южна Норвегия, те са значително по-малко.

В Южна Скандинавия традицията на дългите пластини се отнася до ранния и среден неолит (3900–2350 г. пр. Хр), докато норвежките обекти показват по-късно възприемане на тези пластини (среден неолит В/2800–2350 г. пр. Хр). В културно отношение, този период в Южна Скандинавия и Норвегия се характеризира с особена сложност. Археологическите данни от Норвегия показват съществуването на ловци/

събиратели, владеещи керамичната технология на шнуровата украса. В Швеция и Източна Дания тази група е позната с името култура на керамиката с набождания. Периодът между 2800–2350 г. пр. Хр. включва също и упадъка на културата на фуниевидните чаши в Източна Дания и Южна Швеция, както и появата на културата на шнуровата украса в Скандинавия. В статията е защитена тезата, че през този период дългите пластини в Скандинавия се явяват в контексти, свързани както с ловци-събиратели, така и със земеделци-скотовъдци.

В статията са представени пет среднеолитни (3300–2350 г. пр. Хр.) селища в Южна Норвегия, където присъствието на дълги пластини е засвидетелствано чрез диагностични сечива, направени от кремък, най-вече върхове за стрели с обособена шийка (по типологията на С. J. Becker). Контекстите, в които се откриват дългите пластини, дават основание да се твърди, че в Скандинавия те играят основна роля в ежедневието на среднеолитните земеделци/скотовъдци и суб-неолитните ловци/събиратели, но по различни причини (напр. оръдия за лов, оръжия, инструменти за жътва). Обекти, свързани само с производството на сечива, все още не са познати в Скандинавия, но съдейки по появата на високо качествения сенонски (маастрихтски) кремък в Североизточен Ютланд и датските острови, е напълно възможно в тези райони да са били произвеждани пластини, разпространявани чрез изградени мрежи за обмен. През късния неолит (2350–1800 г. пр. Хр.) традицията на дългите пластини внезапно е заменена от индустрия на бифасиално ретуширани отломъци, което слага край на употребата на дълги пластини в Скандинавия.