

**Transformations of semi-mobility?
The Younger Neolithic in the Altmark**

Annalena Pfeiffer

Abstract

During the Younger Neolithic (2800–2200 cal BC) different transformational processes took place in the Altmark region (Saxony-Anhalt, Germany). Paleo-ecological investigations indicate a significant increase in the human impact on the landscape. We probably are dealing with a highly mobile and translocal society that used smaller seasonal stations and whose economy was based on livestock farming, hunting and fishing as well as crop cultivation. In addition to ecological changes, there are also social changes recognisable in the archaeological material, which are most evident in the funeral practices. After a phase of relatively standardised burials within megalithic tombs a shift to new funeral practices becomes apparent. Sites like Brunau and Lüdelsen also indicate a mixture of different ceramic styles, indicating a strong cultural exchange in this region at that time.

Introduction

The Altmark region, located in northern Saxony-Anhalt, was part of several recent studies on the Neolithic period. These point towards different transformational processes especially with regard to settlement patterns and economy (Diers/Fritsch 2019). During the late phase of the Neolithic, between 2800–2200 cal BC, also changes in ritual behaviour can be identified.

While before about 2800 cal BC Neolithic people were buried mainly collectively in megalithic tombs, we can observe different burial customs in the Younger Neolithic. During that time the region was characterised by mainly two archaeological phenomena. In the western part of the Altmark mostly finds of the Single Grave phenomenon were found and in the eastern part the Schönfeld group is predominantly widespread. The Single Grave phenomenon is associated especially with individual burials in or under burial mounds and secondary burials within the megalithic tombs (Brozio 2012, 75). In the distribution area of Schönfeld, however, primarily cremation cemeteries are known (Wetzel 1979, 89 f.). At the late phase of the Younger Neolithic, there is also an increasing typological influence of the Bell Beaker phenomenon visible in the material (Wetzel 1966, 52).

As the area archaeologically represents a mixture of different ceramic styles and burial rites during the Younger Neolithic¹, the question arises if the hybrid and changing archaeological record correlates with hybrid economies and environmental changes. In principle, the Altmark as an ‘open’ landscape which is not bordered by natural boundaries to other parts of the Northern European plain could be a laboratory to identify aspects of translocation within transformation processes.

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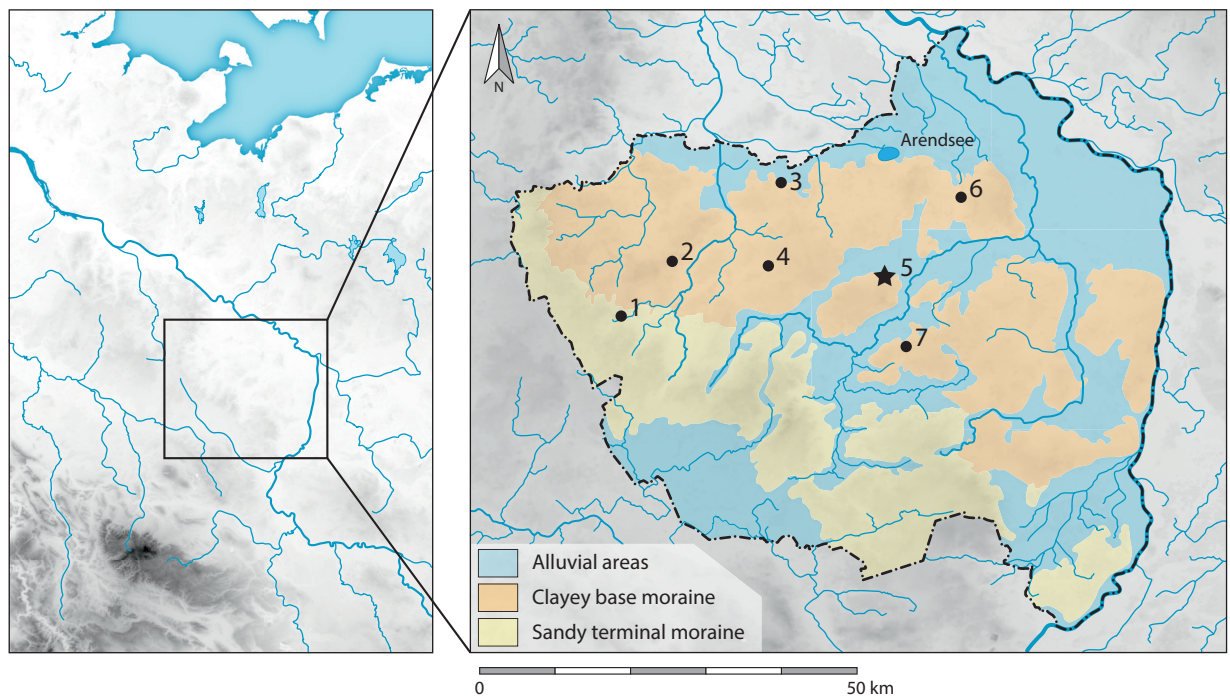
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1 The Altmark region is located at the border between the Northern and Middle German concepts of chronological terminology. Here the northern terminology is used, as the area is archaeologically most similar to the northern areas (cf. Müller et al. 2012).

In the central part of the Altmark the Young Neolithic urnfield of Brunau is located. On the basis of the typological classification of the vessels and radiocarbon analyses the cemetery can be assigned to the late Single Grave phenomenon. The association of cremation burials with Single Grave pottery is rather atypical in most Corded Ware areas, but well known from the Lower Elbe Single Grave group (Brozio 2012, 53). Since cremation burials at this time are characteristic for Schönfeld, a strong mutual influence of both phenomena can be observed in this area at this time with regard to burial customs.

The urnfield site of Brunau was part of recent investigations within the subproject C1 of the CRC 1266 “Scales of transformations – Human environmental interaction in prehistoric and archaic societies” investigating Neolithic transformation processes on the Northern and Central European Plain².

Fig. 1. Geographical location of the Altmark and sites mentioned in the text. 1 Lüdelsen; 2 Leetze; 3 Riebau; 4 Sallenthin; 5 Brunau; 6 Bretsch; 7 Bismark (soils after Diers/Fritsch 2019).



Research Area

The Altmark region of Saxony-Anhalt is part of the North German Plain and is situated north of the low mountain range and the Middle Elbe-Saale-Region (Fig. 1). To the north the Altmark borders the Wendland region of Lower Saxony and to the northeast and east the lowlands of the Elbe river. In the south and southwest, the Ohre valley and the Drömling bottom land represent a rather sharp boundary. The relief was formed during the Saale glaciation and the subsequent warming phase. The flat ground moraine areas are the reason for the slightly hilly appearance of the Altmark, especially in its western part. Numerous streams and smaller rivers meander through the ground moraine landscape and eventually drain north into the river Elbe. The only larger natural water body is the lake Arendsee in the north of the Altmark.

The soils, which consist mainly of glacial sands, gravel and boulder clay, are in general of low quality but with a slightly higher fertility in the less hilly eastern part (Meynen/Schmithüsen 1953–1962, 1180). While pseudogley soils developed on the low-lying ground moraine plates, the slightly higher moraine plates are characterised by areas of loamy haplic albeluvisol and brown earth soils. On the dry and sandy terrains podzoles are dominant (Reichhoff et al. 2001, 22).

² Principal Investigators: Dr. Sönke Hartz (National State Museum Schleswig-Holstein) and Prof. Dr. Johannes Müller (Kiel University).

Especially in areas with sandy soils, the conditions for the preservation of organic material are very poor, and even features such as grave or settlement pits are difficult to identify (Beran 1990, 12).

As already mentioned, different influences of various cultural phenomena can be observed during the Younger Neolithic. In their study on changing environments and social groups in the Altmark region S. Diers and B. Fritsch (2019, 725) pointed out different patterns for the western and the eastern Altmark. In the western part there are almost exclusively finds of the Single Grave phenomenon. Most of them are single finds of shafthole axes and only a few graves and settlements can be observed, whereby Diers and Fritsch draw attention to the fact that many of the axe finds could possibly also be unrecognised inhumation graves. In the eastern part, on the one hand, the same distribution pattern of Single Grave sites and finds can be identified. But in addition to that and contrary to the western part, many settlement sites and extended urnfield cemeteries of the northern group of the Schönfeld group existed during the same time (Diers/Fritsch 2019, 725, fig. 2e). They were located on the edges of the more fertile plateaus along the rivers by avoiding the lowlands (Wetzel 1979, 83).

The urnfield site of Brunau

The urnfield of Brunau is situated on the northern edge of the Kalbesche Werder, an island-like plateau consisting of moraine clay and boulder sands (Meynen/Schmithüsen 1953–1962, 1185). In northerly direction the plateau merges into the lowland area of the Augraben (Fig. 2). Today the site is located in a wooded area east of Brunau at a height of 42 meters above sea level on a slope of the so-called Fuchsberg, a sand dune which has formed due to multiple sand drifts during the Holocene. It can be assumed that the profile of the hill in the Younger Neolithic was not as steep as it is today. Only the sand extraction of earlier years as well as the continuous soil erosion created the present profile of the hill (Fritsch et al. 2002, 80).

The site was first mentioned in 1924 by H. Sülthmann (1924, 23) in his book about the Kalbesche Werder where he refers to an urnfield cemetery at the Fuchsberg in Brunau. It was not until 70 years later, when fragments of a vessel with corded imprints as well as cremation remains were discovered and reported to the local Museum in Salzwedel. After an evaluation of the site, it was decided that a rescue excavation should take place, as the site was located directly on the breakoff edge and was highly endangered by the ongoing erosion processes. The excavation took place in October of 1995, where the particularly endangered edge of the hill was examined.

The graves

In total three graves are documented for the Brunau site. One of the graves was found *in situ* during the first excavation and the other ones were found as surface finds during inspections of the area before and after the excavation. In addition, a few sherds and cremation remains, now lost, presumably can be addressed as a further urn grave (Fritsch et al. 2002, 80). All graves were located near the northern breakoff edge of the sandy hill (Fig. 2), whereas the position of grave 3, discovered as a surface find, can only be reconstructed with uncertainties.

Concerning the structure of the graves, only the one discovered within a profile during the excavation can provide any information

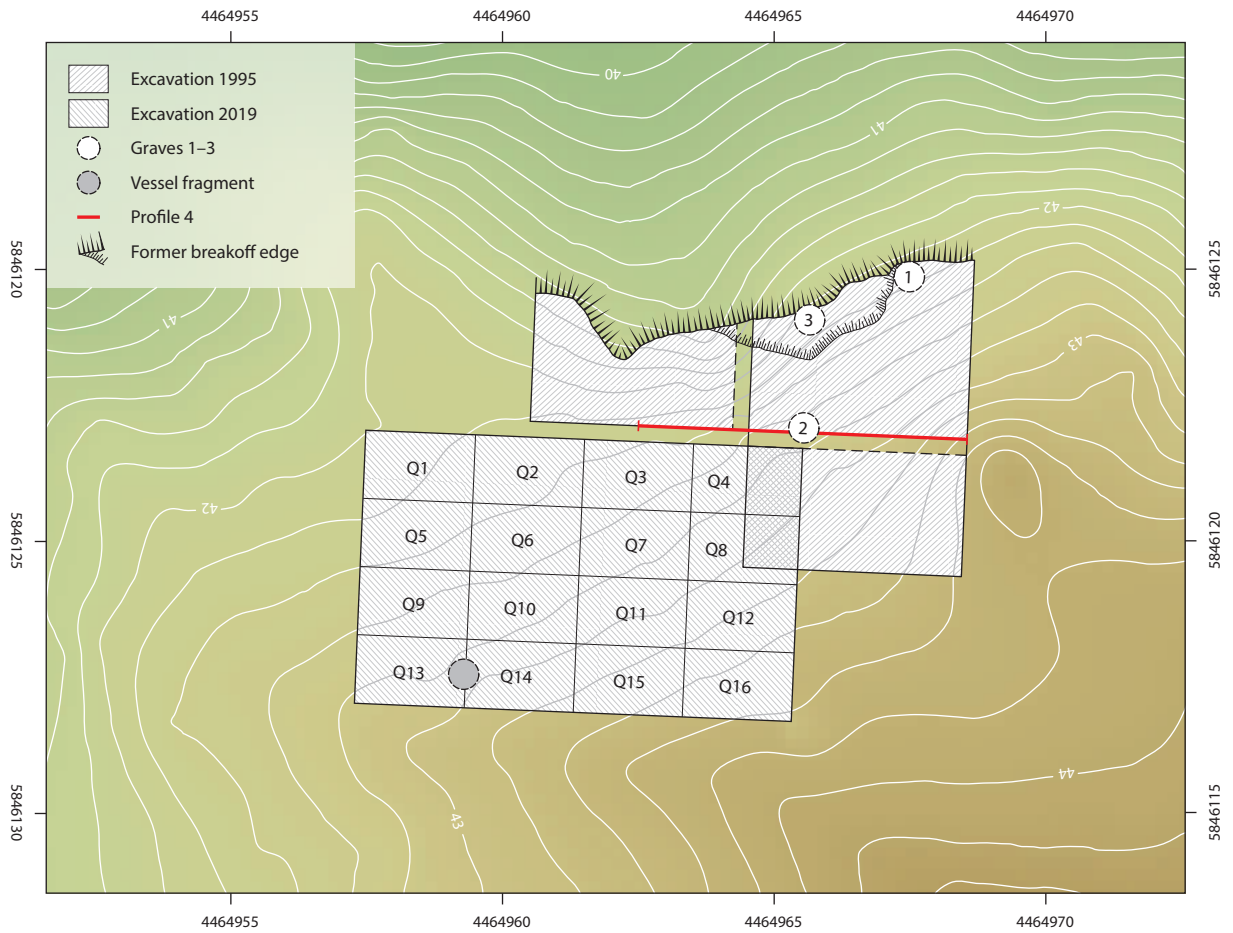


Fig.2. Brunau 4, Altmarkkreis Salzwedel. Topography of the site and excavation plan with the subsections (Q1–Q16) as well as the location of the graves, the vessel fragment and profile 4.

(Fig. 3). Neither a grave pit nor any other structures, like, for example, stone packages, could be observed (Fritsch et al. 2002, 79). The absence of a burial pit can probably be explained by the poor preservation conditions of features in the sandy soil. The urns were therefore probably deposited in small shallow grave pits.

The urns are mostly yellow-brown vessels which are relatively thick-walled and made out of clay with a coarse tempering. The urn of grave 1 is a fragmented beaker with a concave bottom. The rim is decorated with several circumferential rows of cord impressions (Fig. 4.1). Analyses of the cremation remains have shown that the buried person was a 5 to 6-year-old child whose sex could not be determined (Fritsch et al. 2002, 79). Grave 2 consisted of several objects. Of the urn only the lower part is preserved. It is a small beaker with a flat

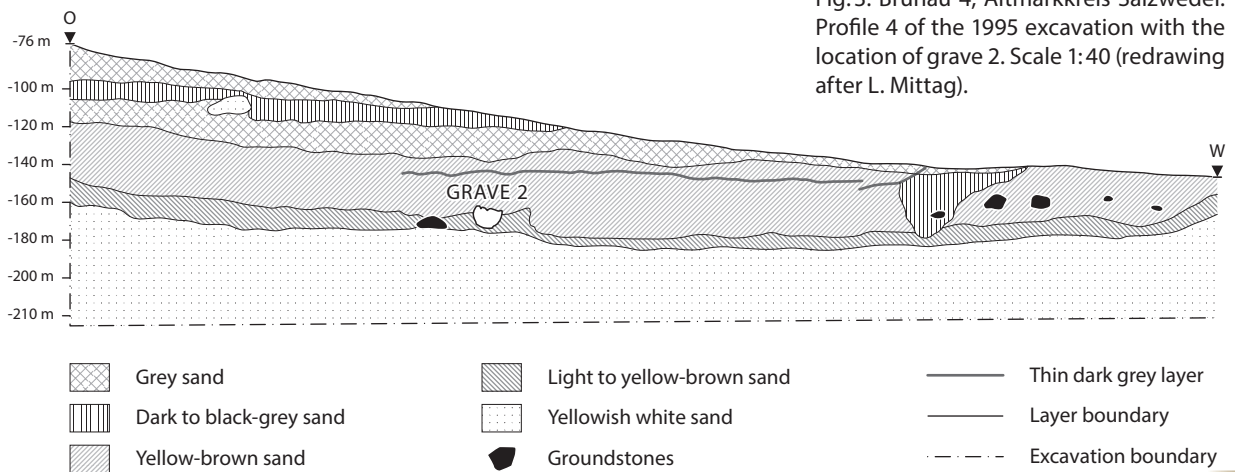


Fig.3. Brunau 4, Altmarkkreis Salzwedel. Profile 4 of the 1995 excavation with the location of grave 2. Scale 1:40 (redrawing after L. Mittag).

bottom and several neat circumferential rows of cord impressions on the rim (Fig. 4.2). The lower fragment of another vessel was leaned against the urn. It has two circumferential rows of small imprints on its shoulder (Fig. 4.3). On top of the cremated bones inside the urn lay the bottom of a third vessel (Fig. 4.4). Probably the cremation was deliberately covered with it. Small fragments of the second vessel as well as an intentionally broken small pointed flake were found inside the cremation (cf. Fritsch et al. 2002, fig. 5). The person buried was a child of about 2 years of age whose sex could not be determined as well (ibid. 79 f.). From grave 3 only a few undecorated fragments of a vessel have been preserved. The person buried was a 20 to 40-year-old woman. Blue-greenish discolouration on the upper arm and lower leg bones indicate the presence of metal.

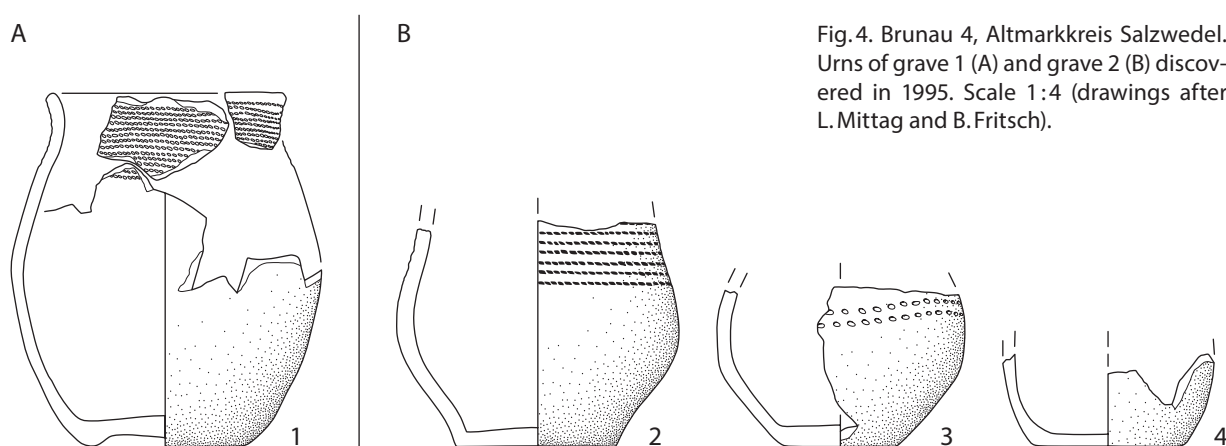


Fig. 4. Brunau 4, Altmarkkreis Salzwedel. Urns of grave 1 (A) and grave 2 (B) discovered in 1995. Scale 1:4 (drawings after L. Mittag and B. Fritsch).

Dating of the graves

In terms of ornamentation of the urns, the graves can be dated to the Younger Neolithic and assigned to the Single Grave phenomenon. Two of the urns are decorated with the typical circumferential rows of cord impressions in the neck area and also the described rows of small imprints can often be found on Single Grave vessels (Beran 1990, 17 f.). With regard to their profiles, the beakers from grave 2 can probably also be assigned to Single Grave pottery, even if the rim area is missing in all cases. However, the shape of the beaker from grave 1 is rather untypical. The profile cannot be assigned to any of the shape groups worked out by J. P. Brozio (2019, fig. 7). The urn of Brunau has a significantly shorter neck area and the belly area is less profiled and more sack shaped. Here we can probably see a typological influence of Schönfeld, as these beakers often have a more bulbous or ovoid shape (Wetzel 1979, 28).

In addition to the typochronological classification, the site can be dated with the help of a radiocarbon date of cremation remains of grave 2 (Müller 2001, 81, no. 21; Fritsch et al. 2002, 81). The sample³ dates to the late phase of the Younger Neolithic, more precisely to a period between 2300–2150 cal BC, thus confirming the typochronological classification of the urns.

Recent investigations

During the recent excavation within the CRC 1266 the old section was extended in a south western direction to investigate the more central part of the hill (Fig. 2). It was clearly visible that over the years

3 Cremated bone: KIA-3943, 3820 ± 30 BP, 2448–2144 cal BC [95%], -21.86 [C¹³/C¹⁴ ratio].

between the excavations, erosion had progressed to a great extent. As during the first excavation, no anthropogenic features could be observed in the sandy soil. Besides, no other grave or cremation remains could be found.

The find material consists of few flint artefacts ($n=19$) and highly fragmented ceramic sherds ($n=50$). The flint artefacts are mostly un-specific items such as flakes and artificial debris, of which only two were burnt. The sherds are often very small wall fragments and were distributed over the entire section. Most of them are heavily worn, thick-walled and yellow-brown and cannot be assembled into single vessel units.

In the south western part of the section, the undecorated neck of a highly fragmented vessel was found (Fig. 5). In contrast to the other vessels this one is finely worked, of dark brown colour and thin-walled. The neck of the vessel is relatively steep and the rim bends outwards significantly. A typochronological classification of the vessel is difficult. Most likely, it is to be associated to vessels of the Early Bronze Age, especially the bending rim is often found on wide cups or compact beakers of the Únětice societies (cf. Zich 1996, pl. 38.B3; 40.D1). A vessel with a similar shape was found in a flat grave of the Early Bronze Age on the cemetery of Karsdorf, located in southern Saxony-Anhalt (Behnke 2014, 162, fig. 18.2). It is described as an early type with Bell Beaker influences. The occurrence of primarily wide and compact bell beakers in this region is also pointed out by R. Großmann (2016, 111). The vessel of Brunau can thus probably be placed at the transition from the Younger Neolithic to the Early Bronze Age. Whether it was also laid down as a burial good cannot be determined due to very poor preservation conditions of bones.

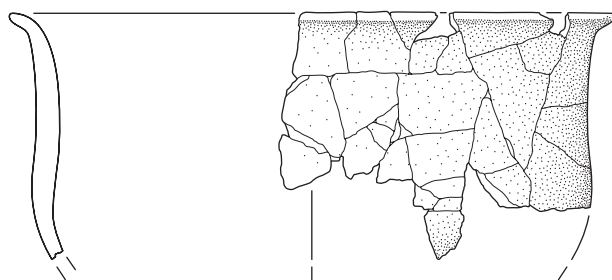


Fig.5. Brunau 4, Altmarkkreis Salzwedel. Ceramic vessel found during the recent investigations. Scale 1:2 (drawing A. Pfeiffer).

Radiocarbon analyses of in total four charcoal remains were carried out (Tab. 1; cf. Fig. 2). All samples originate from the sandy material of the dune, about 1 m below the existing surface and cannot be assigned to any specific features. One sample (no. 19) from a disturbed area in the southern part of the section revealed the oldest age (4700–4535 cal BC) and dates to the Middle Neolithic period. Sample 35 dates to a period between 2865–2580 cal BC and thus to the early phase of the Younger Neolithic, a time where an increase of human activity can be postulated for the Altmark region due to paleo-ecological investigations (Diers/Fritsch 2019, 739). The charcoal comes from the near vicinity of the vessel described above, but has no direct relation to it. The remaining two samples (no. 22 and 52) date to the Early Bronze Age, more precisely to a period between 2000–1700 cal BC and originate from the northeastern part of the section. The results of the radiocarbon analysis show that activities already took place during the Middle Neolithic, but cannot be substantiated by finds from this period. The dates from the Early Bronze Age stress the typochronological classification of the vessel and ongoing activities during that time.

Tab. 1. Brunau 4, Altmarkkreis Salzwedel. Sample details and results of radiocarbon analyses.

lab-no.	sample-no.	location	depth [m]	sample material	age BP	cal BC (95 %)	$\delta^{13}\text{C}$ [‰]	D^{14}C [‰]	pMC	F^{14}C
Beta-543748	19	Q 15	1.05	charcoal (pinus)	5760 \pm 30	4700–4535	–23.6	–511.81 \pm 1.82	48.82 \pm 0.18	0.4882 \pm 0.0018
Beta-543749	22	Q 08	1.06	charcoal (quercus)	3550 \pm 30	2000–1775	–23.9	–357.21 \pm 2.40	64.28 \pm 0.24	0.6428 \pm 0.0024
Beta-543750	35	Q 14	1.25	charcoal (pinus)	4120 \pm 30	2865–2580	–24.4	–401.24 \pm 2.24	59.88 \pm 0.22	0.5988 \pm 0.0022
Beta-543751	52	Q 04	1.37	charcoal (quercus)	3480 \pm 30	1890–1700	–24.0	–351.58 \pm 2.42	64.84 \pm 0.24	0.6484 \pm 0.0024

The recent investigations were able to show that the cemetery does not extend further south and that the southernmost area was investigated during the earlier excavation. The original size of the cemetery can unfortunately not be reconstructed today. The mention of a cemetery by Sülmann (1924), however, leads to the assumption that further urn graves had already been discovered during sand mining in earlier times and that the cemetery extended further north.

Discussion

The prehistoric activities in Brunau took place at a time when different transformation processes regarding social practices and economy can be observed in the Altmark region. The social changes within the societies are most evident in funeral practices. After a phase of relatively standardised burials within megalithic tombs a shift to new funeral practices becomes apparent, especially after 2500 cal BC during the middle phase of the Younger Neolithic. Besides small urn-field cemeteries like Brunau, secondary burials in megalithic tombs as well as individual burials in or under burial mounds appear (Diers/Fritsch 2019, 725).

Another urnfield cemetery is located in Riebau in the northern part of the western Altmark (Beran 1990, no. 338; Fritsch/Diers in press, 116). In total, three beakers and a small undecorated bowl were found (Fritsch/Diers in press, fig. 69). Regarding to their shape they all can be assigned as typical Single Grave beakers. Two of the beakers are decorated with several zones of rows in herringbone ornamentation and the third one has multiple zones of hatched rows on its rim and shoulder. Thus, the decoration as well as the zonal arrangement of the decoration indicate Bell Beaker influences (Behrens 1973, 145).

Several examples of secondary burials within megalithic tombs are known from the Altmark region, e.g. Lüdelsen 3 (cf. Demnick et al. 2011), Leetze 1 (Preuß 1980, no. 1), Bretsch 3 (Wetzel 1979, no. 24), Sallenthin and Bismark (cf. Fritsch/Diers in press, 115). The grave of Leetze is an extended dolmen. Numerous ceramic fragments of the Altmärkische Tiefstichkeramik were found (Preuß 1980, pl. 1–2). However, radiocarbon analyses of a skull fragment⁴ (Müller 2001, 84, no. 53) show that a secondary burial took place during the latest Younger Neolithic between 2400 and 2100 cal BC (Fritsch/Müller 2002, 67). The megalithic tomb of Lüdelsen is also an extended dolmen. The chamber with a first mound and stone enclosure was erected in the 36th century during the Early Neolithic. Large scale reconstruction of the grave took place in the 25th century. The burial chamber was emptied and at least one funeral took place. Subsequently, the mound was enlarged significantly (Demnick et al. 2011, 277 ff.). The secondary burial itself was indicated by a long oval feature, as grave goods a beaker and a bifacial retouched barbed and tanged flint arrowhead were found (Fig. 6). The beaker has a compact shape and the neck as well as the shoulder are decorated with a zone of circumferential rows of cord impressions. On the basis of

4 Skull fragment: KIA-3105, 3860 \pm 40 BP, 2464–2206 cal BC [95%], –26.75 [C¹³/C¹⁴ ratio].

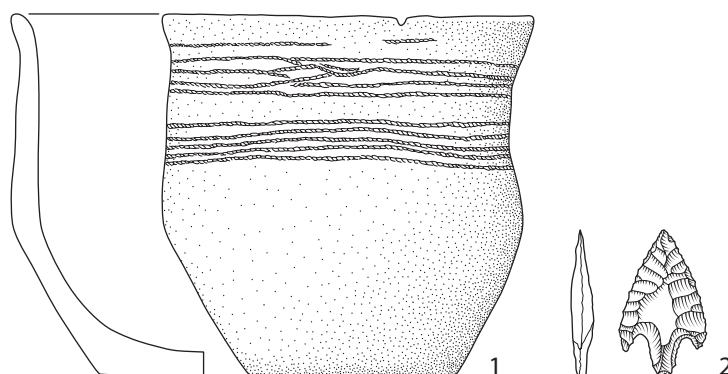


Fig.6. Lüdelsen 3, Altmarkkreis Salzwedel. Grave goods of the secondary burial within the megalithic tomb. 1 Scale 1:2; 2 Scale. 2:3 (drawings after Demnick et al. 2011, pl.3).

comparative finds in the Middle Elbe-Saale region, the beaker can be assigned to a later phase of the Younger Neolithic and probably dates after 2500 cal BC (ibid. 264). Again, the zonal decoration as well as the compact shape of the beaker indicate Bell Beaker influences. This is supported by the arrowhead, since arrowheads of this type are often associated with Bell Beaker finds (Demnick et al. 2011, 265).

Thus, when looking at the Younger Neolithic burial sites in the western and central part of the Altmark, not only a great variance in funeral practices, but also the presence of a great variety of ceramic vessels becomes obvious. Often, they are hybrid forms, where the shape and decoration are influenced by different cultural phenomena. A strong cultural exchange can consequently be postulated for the middle and late phase of the Younger Neolithic.

The transformations taking place are also becoming apparent in ecological archives, as the study on vegetation history by S. Diers (2018) showed. The analysis of different pollen diagrams indicates that around 2500 cal BC significant changes in land-use practices took place. The proportion of open land indicators increases, the forest becomes more open and the cultivation of cereals is proven (Diers 2018, 197; Fritsch/Diers in press, 120). Unlike before, large parts of the Altmark were now used economically. Because of the not very fertile soils and the opening of the forest, it is assumed that livestock farming with grazing on open forest areas and on natural open spaces predominated and that crop cultivation played only a minor role (Fritsch/Diers in press, 121). Fishing also seems to have played an extremely important role, as the extraordinary 1,5 km long fishing fence found in lake Arendsee shows. This can be dated to the Younger Neolithic. First activities took place at the end of the 27th century. Radiocarbon data show that the fence was subsequently used over a period of 500 years until about 2100 cal BC (Leineweber et al. 2019, 582, fig. 4). The fence consists of probably prefabricated elements, which were attached to poles in the lake and linked together. Several stacked stones lying on top of the fence secured the elements in times when no fishing activities took place. Therefore, fishery probably took place seasonally from spring to autumn (ibid. 584). The subsequent use and renewal of the fence indicate sedentary structures even if no domestic sites could be associated with the fishing fence yet.

Conclusion

It seems that we are dealing with a highly mobile and translocal society that used smaller seasonal stations and whose economy was based on livestock farming, hunting and fishing and, to a lesser extent, crop cultivation. The fact that no larger domestic sites are

known for the region as well as the paleo-ecological record suggest an increased mobility during the Younger Neolithic period in the western and central part of the Altmark. This stands in contrast to the eastern part, in which many settlements are known (see above). This would also in turn explain the brisk cultural exchange in the region described above. Only after 2200 cal BC, with the transition to the Late Neolithic and the Early Bronze Age, the population density in the whole Altmark region decreases, as exemplified by a reduced number of sites and a reduced human impact in the pollen sequence (Diers 2018; Diers/Fritsch 2019, 726).

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