

The Aldersro wetland-settlement complex: Deposition and mortuary practices in Pre-Roman Iron Age, Eastern Jutland, Denmark

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ABSTRACT

In southern Scandinavia, the Early Iron Age transition is characterised by radical ideological and organisational changes involving new material practices of sorting, delimiting, depositing and discarding artefacts, humans and nonhumans, in both wetlands and drylands. However, settlements and wetland areas are mostly excavated separately, and the deeper relationship between these practices and associated spheres remains somewhat inconclusive. Aldersro, Eastern Jutland, provides an exceptional opportunity to revisit this relationship. A juxtaposed settlement and wetland activity area spanning more than 1.4 hectares were excavated in 2002-2003. The excavations exposed the structural remains of houses, fences, storage buildings, pits and peat graves. Moreover, they disclosed extensive archaeological remains of more than 800 ceramic vessels, processed wood, stones, burnt organic material, human and animal bones subject to 14C, pollen, archaeobotany, zooarchaeology, osteology, and ceramic analyses. The site has provided vital new insights into the diachronic dynamics of depositional and mortuary practices in the Early Iron Age. The highly fragmented remains of more than eight human individuals were mixed and deposited together with typical settlement debris, and would have been exposed right next to the settlement area.

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Introduction

Aldersro is situated at the northern edge of the Egaa tunnel valley of Eastern Jutland, Denmark (Figure 1), a region characterised by Weichselian clay deposits, and delimited by broad river valleys, lakes and wetlands. The valley yields extensive archaeological traces from the Neolithic to modern times. Before a new motorway was constructed, two archaeological excavations were conducted on former agricultural land (Skousen 2008, 245-292). These revealed traces of partly contemporaneous settlement and wetland activities from the Late Bronze Age (LBA)-Early Iron Age (EIA). The site was originally treated as two: Aldersro I and II (Christensen and Nissen 2003; Rasmussen and Lundby 2003). However, because of their proximity, contemporaneity and characteristics, we consider them as one large interconnected area.

The earlier excavations covered an area of 1.4 ha, and included 931 postholes and over 230 pits, peat graves and cooking pits from LBA-EIA, an exten-

sive Neolithic cultural layer (including five two-aisled house plans and scattered flint debris and sherds) and a modern ridge and furrow system. In this article, we will focus on the archaeological evidence from LBA-EIA. All A and X numbers refer to Christensen and Nissen (2003) and Rasmussen and Lundby (2003).

28 samples of organic material were taken from the wetland area and analysed by Jan Heinemeier, of the AMS 14C laboratory, Aarhus University. 13 of these samples relate to LBA/EIA contexts (Table 1), but most of these fell within the Hallstatt plateau (c. 800-400 BC), a substantial plateau on the calibration curve providing a statistic inaccuracy of several centuries (van der Plicht 2004). Given the broad dating, the chronology is primarily based on ceramic analyses and house typology.

The ceramic material represents more than 800 vessels. Most were highly fragmented, and found in house structures and pits, or spread

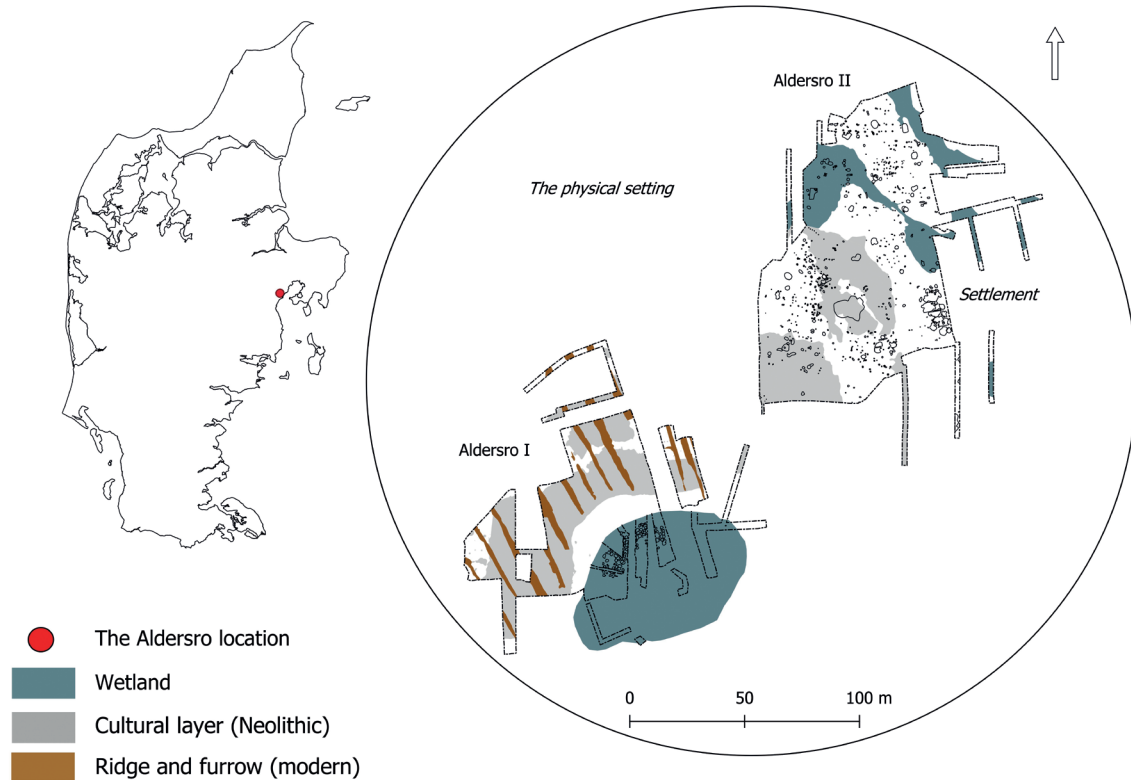


Figure 1. The Aldersro wetland-settlement complex, Eastern Jutland (formerly Aldersro I–II). The physical setting and settlement relate to the sections in the text (Credit: Moesgaard Museum and the authors).

across the nearby wetlands. The sherds had various shapes and sizes, and corresponded to vessel types common in EIA settlements, such as storage vessels, pots and cups. They included both fine and coarse-tempered pottery, and a few black burnished vessels. There were only six complete bog pots, four from the Early Pre-Roman Iron Age (EPRIA), and two from the Late Pre-Roman Iron Age (LPRIA). Based on the chronological elements, including the mouths and handles, 1 % of the ceramic sherds and vessels dated to the LBA, 49 % dated to the EPRIA – indicating a peak in activity at the site – 38 % dated to the LPRIA, and only 10 % dated to the Early Roman Iron Age (ERIA). The remaining 2 % were of uncertain date.

The Aldersro settlement was initially dated to the LPRIA (250 BC–AD 1) (Christensen and Nissen 2003, 7–8), however, based on our reanalysis of the ceramic material and house typology, we suggest that Aldersro was already settled at the beginning of the EPRIA (500–250 BC).

1. The physical setting

178 pollen samples¹ were collected from the Aldersro wetlands and analysed by Bent Aaby, at the National Museum of Denmark (Aaby 2005). They showed that in the LBA, a small open forest covered the local area. Here, pollen from birch (*Betula*), hazel (*Corylus avellana*) and lime (*Tilia*) dominated. The limited quantities of Bronze Age ceramics suggest that the area was uncultivated wetlands enclosed by a forest. In the LBA, people used the wetlands for extensive peat cutting, and removed a large horizontal layer of peat, accompanied by 90 peat graves presumably used to drain off the wetlands while working (Rasmussen and Lundby 2003, 27–35).

At the beginning of the EPRIA, the open forest was turned into open pastures and fields (Aaby 2005; Jensen 2003, 2004a, 2004b). Grassland plants such as ribwort plantain (*Plantago lanceolata*), white goosefoot (*Chenopodium album*) and red sorrel (*Rumex acetosella*) now dominated, and arable plants, including barley (*Hordeum vulgare*),



Figure 2. House plans and fences from Aldersro. Houses indicated in the same colour share the same orientation (Credit: Moesgaard Museum and the authors).

oat (*Avena* sp.) and flax (*Linum usitatissimum*) were cultivated in small amounts. Throughout the PRIA, agricultural activities continued in the surroundings of the wetlands, and later, in the ERIA, rye (*Secale cereale*) became popular too. However, the archaeological record indicates that these activities decreased during the Late Iron Age, and slight reforestation took place (Aaby 2005, 8).

2. The settlement

Concentrated in the northern parts of the Aldersro site, the traces of 11 three-aisled longhouses, three four-post structures and six fences were identified as belonging to the PRIA (Figure 2).

Each longhouse featured 3 to 6 pairs of roof-supporting posts, was approximately 5 to 6 m wide and 9 to 12 m long, and resembled the archetypical house of the EPRIA (Webley 2008, 48-53). No remains of house walls or stall partitioning were identified.

The stratigraphy of the house plans gave no indication of the contemporaneity of the longhouses. Houses marked in green and black had similar orientations, suggesting two small settlements in two phases (Figure 2). The few house plans suggested that these settlements existed only briefly and disappeared from the wetlands' immediate vicinity in the LPRIA. Ceramics were deposited in the roof-supporting posts of five longhouses, all dating to the EPRIA, which supports the chronological delimitation of the settlement phase of the excavated area.

Six fences were preserved as five post rows and a ditch, each 2.5 to 20 m long. Owing to their fragmented state, it was impossible to establish the number of phases involved or any relationships between the fences and the house plans.

The three four-post structures were 2.3 to 2.7 m wide and 2.9 to 3.6 m long. Two structures were found near the longhouses, and one was situated at some distance from the houses.

3. The wetlands

The wetlands of Aldersro yielded a total of 90 peat graves and revealed two major depositional horizons: wetland horizon A (EPRIA) and wetland horizon B (LPRIA). The two horizons are continuous, and may be seen in the profile on Figure 3A as the thick, dark bottom layer.

2402 animal-bone fragments were registered and analysed by Anne Birgitte Gotfredsen, of the Natural History Museum of Denmark (Gotfredsen 2004a, 2004b). 328 of these fragments related to LBA/EIA contexts. Owing to their fragmented state, it was not possible to determine a minimum number of individuals represented.

18 human bone fragments were found and analysed by Lene Møllerup, MA, of Moesgaard Museum (Møllerup 2003a, 2003b, 2004). Based on the frequency of left femur fragments, these represented a minimum of eight individuals.

The human bone material reflects some traces of mortuary and post-mortuary practices. One female left femur (x3861) has a deep fracture and an anterior cut; another bone (x520) had been broken, most likely post-mortem. The bones were all unburnt, mirroring the mortuary practices known from the bog bodies and post-conflict sacrifices that clearly differ from the dominant burial practices of the time (Løvschal and Holst 2018). Moreover, there is a clear overrepresentation of left femur, which besides from entropic conditions could derive from intentional selection. The fragmentation of human corpses mixed with fragmented vessels is striking, although not unprecedented for these sites. It suggests mortuary practices in which the corpses are not delimited or allocated separately, but something that is subsequently and repeatedly interacted with. Moreover, there is a striking difference between the earliest human deposition in the form of an entire male corpse, and subsequent mixed gender depositions now appearing only as partial bodies and body parts, suggesting a shift in the mortuary and post-mortuary practices, towards practices involving decomposition, mixing and selecting.

Late Bronze Age

The earliest human activities documented in the wetlands were related to the extensive peat-cutting that took place in the LBA (see section 1. *The physical setting*). Subsequently, the peat graves were refilled with the excavated material, mixed with LBA ceramics, twigs, human and animal bones, and a vast number of hand-sized stones (up to 26 kg in some peat graves) (Rasmussen and Lundby 2003, 31-32). All the stones were found in the peat graves. Although all this material belongs to the domestic sphere, no contemporary evidence of house plans was discovered in the vicinity of the wetlands. About half of the animal bones came from domesticated animals (N=16), including cattle, dogs, horses, pigs, and sheep/goats. One of the peat graves contained a woman's right temporal bone (*Os temporale*) (X4779).

No other cultural remains were found in the peat graves. Moreover, the absence of organic growth layers or clearly demarcated depositional horizons suggested that peat-cutting and the subsequent refilling of the peat graves was confined to a brief period.

Towards the end of the period represented by this horizon, at the transition to the EIA, the body of an adult human male (X3604) (Figure 3B) was deposited on top of the refilled peat graves along with an unbroken ceramic vessel (X3639) (Figure 3C). The skeleton appeared robust. The bones showed significant signs of wear, and there were two healed injuries to his ankle and a rib, caused by heavy physical activity (Møllerup 2003b).

Early Pre-Roman Iron Age

As the area was settled at the beginning of the EPRIA, the wetlands became focal points of new activities: an extensive layer of charcoal, animal bones, charred grain, and damaged pottery accumulated across the wetland area (wetland horizon A), *on top of* the LBA peat graves. The layer was clearly defined and consisted of approximately 50 cm thick, homogeneous peat, suggesting continual use and mixing.

The zooarchaeological material from horizon A was dominated by domesticated animals, includ-

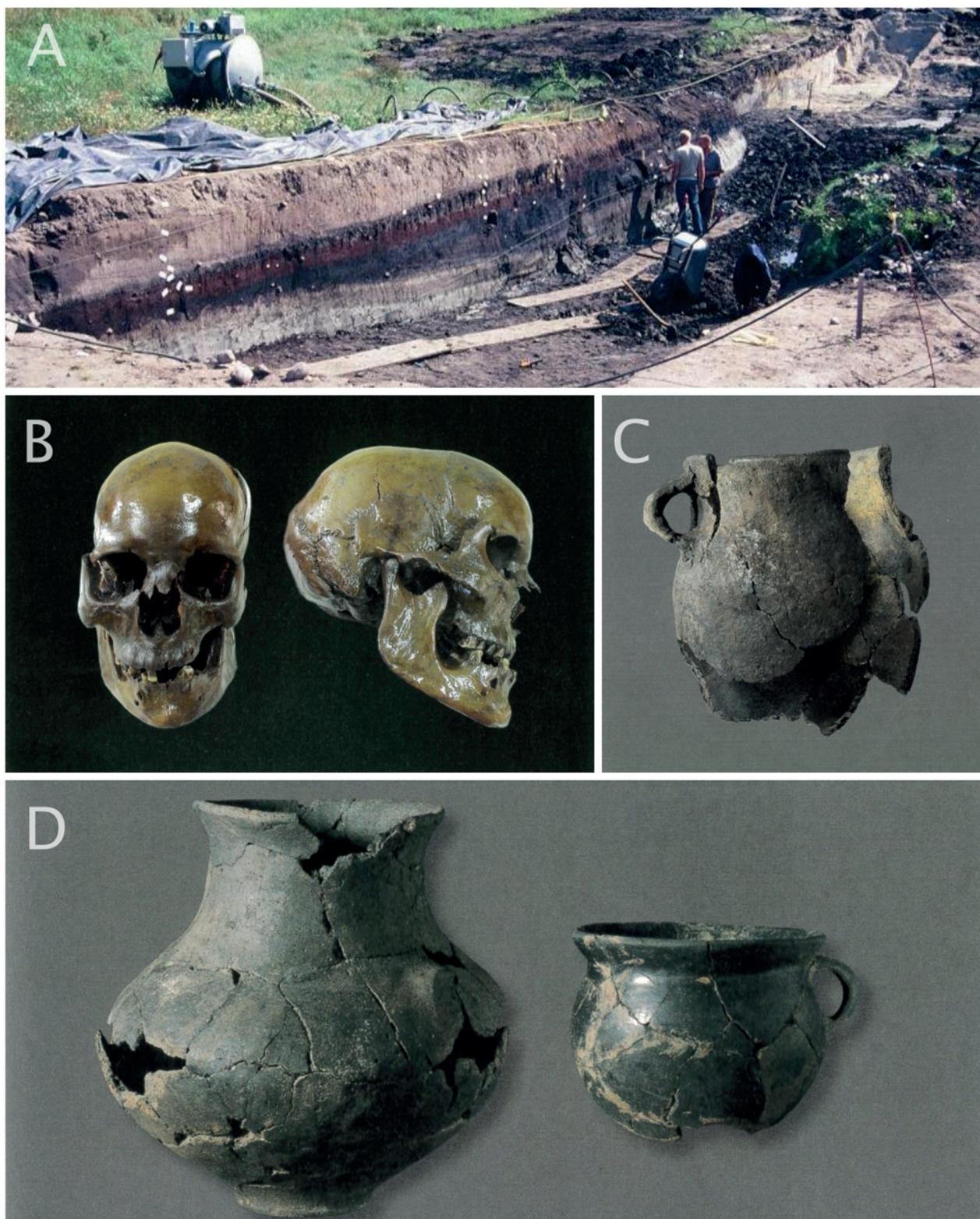


Figure 3. A: The bog profile of Aldersro I. B: The skull of an adult male (X3604). C–D: Three ceramic pots (C: X3639, D: X3647, X1364)(Credit: Moesgaard Museum and Skousen 2008).

ing cattle, sheep/goats, dogs, and horses. Only one bone fragment of a pig was found. The faunal material represent a broad selection of animal species and body-parts, resembling the typical husbandry found at the EIA settlements (Kveiborg 2008,

2019; Mortensen et al. 2020), rather than a particular species selection as known from wetland depositions such as Bukkerup Langmose and Lauritshøj (Hatting 1993; Mandrup et al 2015). Horizon A also contained at least four EPRIA vessels

(X1364, X2566, X3639, X3448–49) and several other concentrations of fragmented ceramics (Figure 3D). Also, the remains of at least two humans were found. They differed from the earlier male skeleton (X3604) in that each was represented by only a few limb bones. The first set of remains were those of an adult female represented by a left femur (X3197) and humerus (X2611); the second, of a child represented by a single right humerus (X4414) (Møllerup 2003a, 2004).

Late Pre-Roman Iron Age

During the LPRIA, another approximately 50 cm thick layer, this time of sandy clay, mixed with increasing quantities of charcoal, animal bones and ceramic sherds, accumulated over the wetlands (wetland horizon B). The relationship to the underlying horizon (A) was diffuse and suggests continual use of the wetlands throughout the LPRIA, despite that the settlement disappeared from the immediate vicinity of the wetlands. Moreover, approximately ten shallow pits were dug into the underlying horizon (A).

The amount of zooarchaeological material from this horizon increased (from N=100 in EPRIA to N=154 in the LPRIA). Cattle and sheep/goats persistently dominated the material, whereas dogs were no longer represented. Pig bones increased significantly, from two bone fragments in LBA–EPRIA to 18 in the LPRIA (Gotfredsen 2004b).

At least three broken ceramic vessels (X2728–32, X3647, X2733) and several concentrations of shattered sherds (Figure 3D) belong to wetland horizon B. One (X2728–32) was deposited on top of a large stone. Several small and hand-sized stones were found among the ceramic sherds, and may have been used to smash the vessels.

The remains of at least five adult humans belong to horizon B. As in the underlying horizon A, none of these bones appeared in their correct anatomical relationship, but were scattered across the wetland area, deposited in the shallow pits, and combined with other material remains. One left femur (X3955) from a young or adult female human was found between two ceramics concentrations. Another left femur (X2516) from a woman was found at the bottom of a shallow pit amongst

several sherds. Moreover, three left femora from human males (X2601.1, X2601.2, X3861) were found scattered across this horizon (B). X3861 had a deep fracture and a 32 mm long anterior cut mark, which was made while the bone was still fresh (Møllerup 2003a, 2003b, 2004).

Concluding remarks

The excavations at Aldersro have provided extraordinary evidence of what was probably relatively common from the 8th to the 1st century BC, where wetlands became fora for combined economic, ritual and mortuary activities. The juxtaposition of depositional and settlement areas is found elsewhere in Eastern Jutland, such as at Lauritsenhøj (Mandrup et al. 2015), Hedelisker (Kaul 1994), Nye (Iversen 2018) and Fuglsøgaard Mose (Mortensen et al. 2020).

The Aldersro wetlands reveal material evidence of practices of fragmentation and mixing, similar to those typical of the domestic sphere. They suggest close spatial, material and conceptual relationships among the various spheres of everyday existence, such as wetland depositions, economic activities and dwellings. The dead human corpses were not burnt or submerged and thereby spatially delimited or hidden. Instead, there would have been partial and visibly decaying corpses in close proximity to where people lived and had their regular visits.

The wetlands also reveal the contours of particular attitudes to wetlands and their associated material practices that differ significantly from those evident in Bronze Age wetland deposits of carefully selected, separated and specially-made valuable metal artefacts (Jensen 1997) and their deeper delimitation of spheres of everyday existence. Although a series of observations from Aldersro suggest a degree of both material and context selection and preparation, the materials are not similarly separated from spheres of everyday life. In this sense, a distinction between refuse and sacrificial depositions seems unproductive for now, as we are facing culturally embedded, material practices which are not obviously based on such binary oppositions. Moreover, there is a significant continuity or at least repeated use of the wetlands across several centuries, spanning from the end of

the late Bronze Age (X4779) to the transition to the Early Roman Iron Age.

The submersion of male human remains at Aldersro during the transition to the Iron Age appears to have been the starting point for succeeding centuries' deposits in the nearby wetlands, which included ceramic sherds, vessels, stones, burnt organic material, and combined human and animal remains. The human bones show traces of sharp-force violence. The material debris shows extensive traces of destruction, fragmentation and dismemberment, suggesting the emergence of new attitudes to the very boundaries of material forms, bodies – and human/nonhuman life.

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Notes

1 Aldersro I: Main profile A and six peat graves (A1015, A1024, A1024, A2002, K2123, K2143).
Aldersro II: profile K880.

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Supplementary

Table 1: ¹⁴C dates from Aldersro I & II see pdf-attachment.