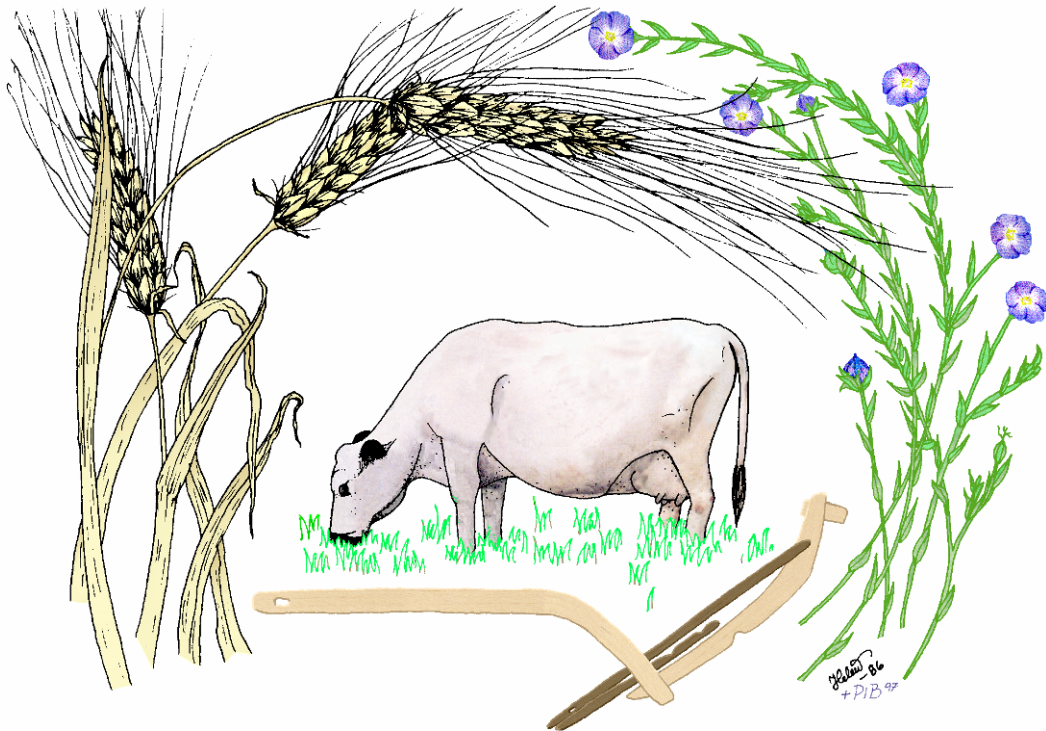


MILJÖARKEOLOGISKA LABORORIET

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Archaeobotanical analysis of samples
from the site Amhult, Torslanda 115:1,
L1967:6523, Torslanda Socken,
Bohuslän

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Archaeobotanical analysis of samples from the site Amhult, Torslanda 115:1, L1967:6523, Torslanda Söcken, Bohuslän

Kristian Hristov

Sample information

Analysis type: Macrofossil analysis of unfloatated samples.

Number of samples: 11 macrofossil samples.

Introduction

Eleven samples from the site of Amhult, Torslanda 115:1, L1967:6523 were analysed at the Environmental Archaeological lab, Umeå University.

The samples came from Mesolithic gravel deposits and the Neolithic areas within the same archaeological site. The aim of the analysis is to help with the interpretation of the excavated layers and select material for 14C dating.

The samples were provided by Thomas Johansson, Rio Göteborg Natur- och kulturkooperativ.

Materials and Methods

Before the analysis the samples were stored in a drying room (+30°) until the moisture has disappeared. Afterwards they were floated using sieve meshes of 2 mm and 0,5 mm. The samples volume before floatation was between 1 and 2 liters and after it between 5 to 50 ml. The sieved material was sorted under stereomicroscope. The results from the analyses are presented in Table 1 and 2. The amount of woody charcoal was estimated as relative proportion of the floated sample volume as follows: x = up to 25%, xx = up to 50%, xxx = up to 75%, xxxx = about 100%. Presence of modern seeds in the samples is marked with “x”.

The selected for 14C material is presented in Table 2. The determination of plant species was done using reference literature for wood (Schweingruber 1978; Schweingruber 1990) as well as the laboratory reference collections. The names of the identified plants are given according to the Nordens flora (Mossberg and Stenberg 2018) and the Virtual Flora (Anderberg and Anderberg, u.d.).

The analysis of the samples was performed by Kristian Hristov.

Results

Eleven samples were analysed for macro remains. The amount of charcoals in the floated samples is between 0% and 25% but in one sample, it is about 75% of the floated sample volume. All samples contained modern vegetative parts such as stems, roots, twigs and in some cases seeds. No plant macrofossil remains were found in the samples.

Sample 16_0005_0001/ A3, P6

The sample volume before floatation was 1,4 litres and after floatation – 25 ml. The amount of charcoals was estimated about 50% of the floated sample volume. The rest of the sample was presented by modern vegetative parts such as roots, stems, and seeds. No macro remains were preserved. A charred twig of diffuse porous wood was selected for 14C dating.

Sample 16_0005_0002/ A4, P7

The sample volume before floatation was 2 litres and after floatation it was 20 ml. The amount of charcoals was about 25% of the floated sample volume. Modern roots, stems, and seeds comprised the rest of the sample. No other botanical material was found. A charcoal fragment defined as *Corylus/Alnus/Betula* (Hassel/ Alar/ Björk) was selected for 14C dating.

Sample 16_0005_0003/ A5, P8

The sample volume before floatation was 2 litres and after floatation it was 5 ml. The amount of charcoals in the sample was about 25% of the floated sample volume. No other plant remains were preserved in the sample. Some modern seeds were noticed. A charred fragment of diffuse porous wood was selected for 14C dating.

Sample 16_0005_0004/ A14, P10

The sample volume before floatation was 1,8 litres and after floatation – 30 ml. The amount of charcoals was estimated to about 25% of the floated sample volume. The rest of the floated sample consisted mainly of modern stems, roots, and seeds. No archaeobotanical material was preserved in the sample. A charcoal piece of *Fraxinus* (Askar) was selected for 14C dating.

Sample 16_0005_0005/ M3, P11

The sample volume before floatation was 1,6 litres and after floatation – 25 ml. The amount of charcoals was about 75% of the floated sample volume. The rest of the sample consisted of modern roots, stems, and seeds presented. No plant macro remains were found. A charcoal fragment determined as *Corylus/Alnus* (Hassel/ Alar) was selected for 14C.

Sample 16_0005_0006/ M60, P12

The sample volume before floatation was 2 litres and after floatation – 30 ml. No charcoals or other plant remains were noticed in the sample. The sample comprised modern plant material such as roots, stems, twigs, and seeds.

Sample 16_0005_0007/ M69, P13

The sample volume before floatation was 1,6 litres and after floatation – 50 ml. No botanical material was preserved. Only two charcoals fragments were noticed. The rest of the sample comprised mainly modern stems, roots, and seeds.

Sample 16_0005_0008/ S4, P14

The sample volume before floatation was 1,5 litres and after floatation – 10 ml. Only about 10-15 small charcoal fragments were present in the sample. The rest of it contained modern

roots/stems and seeds. No plant macro remains were registered. Three small fragments of charred diffuse porous wood were selected for 14C dating.

Sample 16_0005_0009/ S3, P15

The sample volume before floatation was 2 litres and after floatation – 20 ml. No botanical material was preserved, neither seeds, nor charcoals. The rest of the sample comprised mainly modern stems, roots, and twigs.

Sample 16_0005_0010/ S3, P17

The sample volume before floatation was 1 litres and after floatation – 5 ml. Only about 10-15 charcoal fragments were noticed in the sample. The rest of the sample consisted of modern vegetative parts. No plant macro remains were found. A piece of charred diffuse porous wood was selected for 14C dating.

Sample 16_0005_0011/ S2, P20

The sample volume before floatation was 1,8 litres and after floatation – 10 ml. The amount of charcoals was about 25% of the floated sample volume. Modern roots/ stems comprised the rest of the sample. No plant macro remains were found. Two pieces of charcoals were selected for 14C: one twig and one defined as *Corylus/Alnus* (Hassel/ Alar).

Discussion and Conclusions

The lack or low amount of charcoals demonstrate limited or no burning activities in the study area. The absence of fire could be a possible explanation for the lack of any other plant macro remains. The scarce preservation of botanical material does not allow further interpretations concerning the studied structures.

References

- Anderberg, A.-L., & Anderberg, A. (u.d.). Den virtuella floran. Hämtat från <http://linnaeus.nrm.se/flora/welcome.html>
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- Schweingruber, F. H. 1978. *Microscopic Wood Anatomy*. Birmendorf: Eidgenössische Anstalt für das forstliche Versuchswesen.
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Figures and tables

Table 1. Archaeobotanical results from the studied sites.

MAL nr	16_0005_0001	16_0005_0002	16_0005_0003	16_0005_0004	16_0005_0005	16_0005_0006	16_0005_0007	16_0005_0008	16_0005_0009	16_0005_0010	16_0005_0011
Prov nr	6	7	8	10	11	12	13	14	15	17	20
Feature	A3 (M4)	A4 (M13)	A5 (M14)	A14	M3	M60 (S2)	M69 (S3)	S4	S3	S3	S2
Charcoal fragments	xx	x	x	x	xxx	0	x	x	0	x	x
volume before flotation (L)	1,4	2	2	1,8	1,6	2	1,6	1,5	2	1	1,8
volume after flotation (ml)	25	20	5	30	25	30	50	10	20	5	10
modern seeds	x	x	x	x	x	x	x	x			

Table 2. Material selected for ¹⁴C dating.

MAL nr	Makro nr	Anläggning	Material - charcoals	Vikt
16_0005_0001	P6	A3 (M4)	diffuse porous wood - twig	50 mg
16_0005_0002	P7	A4 (M13)	<i>Corylus/Alnus/Betula</i> (Hassel/ Alar/ Björk)	632 mg
16_0005_0003	P8	A5 (M14)	diffuse porous wood	58 mg
16_0005_0004	P10	A14	<i>Fraxinus</i> (Askar)	44 mg
16_0005_0005	P11	M3 (sitck 2)	<i>Corylus/Alnus</i> (Hassel/ Alar)	211 mg
16_0005_0008	P14	s.4	diffuse porous wood - 3 fragments	20 mg
16_0005_0010	P17	s.3	diffuse porous wood	73 mg
16_0005_0011	P20	s.2	<i>Corylus/Alnus</i> (Hassel/ Alar)	18 mg
16_0005_0011	P20	s.2	diffuse porous wood - twig	17 mg



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