THE UNIVERSITY OF WINCHESTER

Fishlake, Romsey Auguring Report

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This document describes and explains the work which was carried out during a preliminary archaeological investigation at the Fishlake, Romsey, Hampshire, 2017.

Contents

Figures

Site: Fishlake**,** Romsey, Hampshire
Date: July 2017
Project type: Fieldwork (Auguring)
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1. Introduction

1.1 This document discusses initial auguring work carried out at the Fishlake, Romsey, Hampshire, on 30th March 2017. This work was undertaken to help give a better understanding of this feature, and in turn its heritage potential, and map the deposits identified.

1.2 The fieldwork was undertaken on a privately-owned section of the bank (at NGR 43539733/12292094) and adjacent land to the west, being the property of Christopher Saunders-Davies and with his kind permission.

2. Project Aims and Objectives

2.1 The aims and objectives of this preliminary investigation is to aid better understanding of the bank along the channel known as the Fishlake, and assess the potential for dating this feature.

2.2 The fieldwork was undertaken for the Romsey History Local Group (LTVAS) whose research into this area and area are ongoing and aims to aid future decisions concerning further research.

3. Fieldwork Methodology

3.1 Auger Survey (Hand)

3.1.1 A transect was drilled using a hand auger to examine underlying archaeology and geo-archaeological deposits to the west of and partially into the extant Fishlake bank. This work was undertaken to determine the depth, construction and underlying stratigraphy. The methodology undertaken for examination of each transect is as follows:

3.1.2 Holes (of a maximum diameter of 50 mm) were hand-drilled at 0.5 – 1m intervals along a transect from the west side of the Fishlake bank and to a maximum extent of the middle of the bank. The remainder and eastern (water) side of the bank was not be disturbed. The work is designed to be of minimal impact to the bank The location of each transect was logged using a Leica Smartrover GPS to determine height (OD) and location. Tapes were then used to locate the position of the each bore hole along each transect.

3.1.3 An Edelmann hand auger was used to carry out the survey work (ARCA, 2009). Holes were drilled at 0.20 m deep spits until either: the depth of the underlying geology was reached. The sediments recovered from the chamber were described using a Munsell soil colour cart and standard Troels-Smith description criteria. Each hole was backfilled with the up-cast removed from each bore hole.

3.1.4 Upon the completion of the survey, the data was entered into Rockworks using a desktop PC, to map the underlying lithology and stratigraphy of each transect.

4. Assessment of Transect 1. (Figure 1)

4.1 The results from the five Bore Holes (BH) drilled, which form Transect 1 can be seen in Figure 1. A description for each BH (Lithology, Stratigraphy and location) can be seen in Appendix 1 to 3. Within the Transect six main sedimentary units can be seen to have formed within the stratigraphy, stating at the ground surface of the transect.

4.2 Unit 1 comprises the overlying modern topsoil.

4.3 Unit 2, is only seen in BH's 6 and 7 comprised a hard chalk deposit of made ground and therefore is interpreted as the chalk embank adjacent to the current water channel. Due to the nature of the deposit it is unlikely to contain datable material to be able to determine a direct date of construction.

4.4. Unit 3 comprised a fine sand and silt, however due to its brown colour may indicated an organic content within its matrix. Due to Unit 3 only being observed underlying Unit 2 in BH6 and 7, it can be interpreted as a palaeosol, and therefore a possible land surface prior to the construction of the overlying chalk embankment. If able to be dated this may give a *terminus ante quem* date for the construction of the overlying bank.

4.5 Unit 4 comprised a series of fine sand/silt and silt/clay deposits seen in all BH's, and underlie Unit 1 in BH 1 to 4 and Unit 3 within BH 6 to 7. This sedimentary Unit is therefore interpreted as a possible paleo-channel adjacent to the current channel, which may indicate either a wider channel during earlier period or that the channel has shifted over time.

4.6 Unit 5 comprises a peat deposit seen in all BH's. This peat deposit can be seen to be 0.21m to 0.55m thick, waterlogged, and contain fragments of wood, indicating a wood peat ion this area. Due to the nature of this Unit it can be seen to have a high paleo-environmental potential, and therefore likely to contain pollen and microfossil material which could be used to determine the past environment of the area. The unit is also suitable for AMS ^{14}C dating.

4.7 Unit 6 Comprised a gravel deposit seen in all BH's, and therefor is interpreted as the Wittering Formation geology underlying the area.

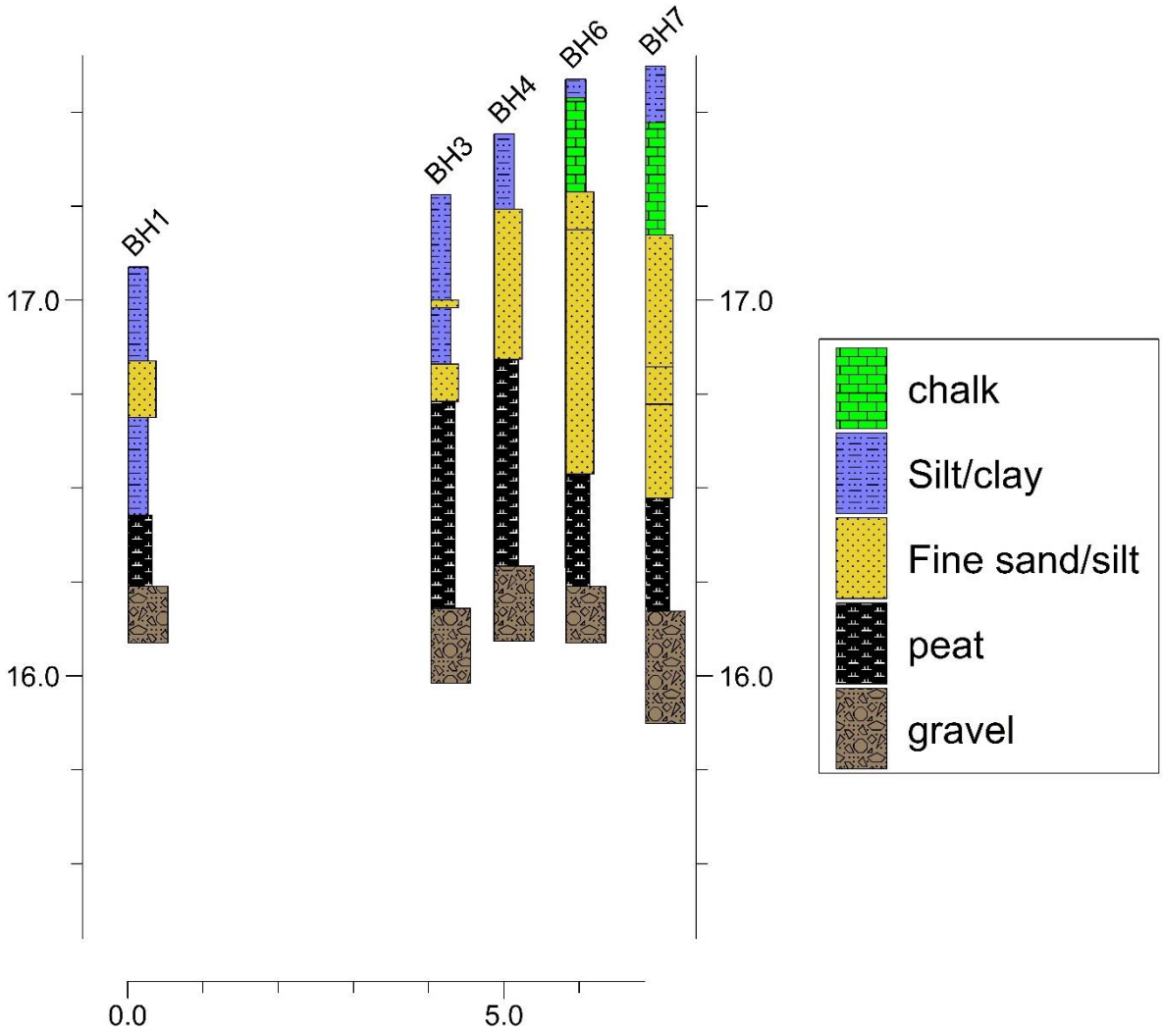

Figure 1. Diagram showing the five BH's which form transect 1 (Lithology). The water channel is located adjacent to BH7.

5. Conclusion and Recommendations

5.1 From both the lithology and stratigraphy of the five BH's drilled along the single transect, it can be determined that the area has a high paleo-environmental potential. This includes the possible location of a palaeosol underlying the chalk bank with forms the embankment of the adjacent river channel. It can further be indicated that the palaeosol is likely to have formed above a silted up stream channel. This may indicate either the movement of the adjacent channel or a wider channel during an earlier period of time. Lastly, at the base of the hole overlying the Wittering Formation gravel deposits, a thick (up to 0.50m) peat deposit had formed, indicating marsh land within the area.

5.2 It is recommended that a bore hole is drilled with the recovery of a sealed core. Analytical work and samples would be recommended to both for both the peat deposits (Unit 5) and if possible palaeosol (Unit 2) to date the deposits through AMS ^{14}C dating as well as

sub samples taken to determine the likely paleo-environment within the area though pollen and microfossil analyses.

Bibliography

ARCA. (2009). *Borehole Studies*. Retrieved October 19, 2010, from ARCA: www.arcauk.com/uk/services/geoarchaeology/borhole_studies.html

Appendix 1 – Bore Hole Logs Lithology

Bore	Top	Base	Lithology	Comments
BH1	0.00	0.25	Silt/clay	7.5YR 3/2 dark brown, Ag4 Gg (min)+ (flint). Sharp boundary
BH1	0.25	0.40	Fine sand/silt	10YR 3/2 very dark greyish brown. Ag3 Gs1. sharp boundary
BH1	0.40	0.66	silt/clay	10YR 6/2 light brown grey Ag4. sharp boundary
BH1	0.66	0.85	peat	10YR 2/1 black. Ag4 Sh+ Dg+. Sharp boundary
BH1	0.85	1.00	gravel	Base of hole
BH3	0.00	0.28	silt/clay	7.5YR 3/2 dark brown, Ag4 Th+. Diffuse boundary
BH3	0.28	0.30	Fine sand/silt	10YR 3/2 very dark greyish brown. Ag3 Gs1. Sharp boundary
BH3	0.30	0.45	silt/clay	10YR 6/2 light brown grey Ag4. sharp boundary
BH3	0.45	0.55	Fine sand/silt	10YR 5/6 yellowish brown. Ga3 Ag1. Sharp boundary.
BH3	0.55	1.10	peat	10YR 2/1 black. Ag4 Sh+ Dl+. Sharp boundary
BH3	1.10	1.30	gravel	Base of hole
BH4	0.00	0.20	silt/clay	7.5YR 3/2 dark brown, Ag4 Th+. Sharpe boundary
BH4	0.20	0.60	Fine sand/silt	10YR 6/2 light brown grey Ag3 Ga1. Sharp boundary
BH4	0.60	1.15	peat	10YR 2/1 black. Ag4 Sh+ Dl+. Sharp boundary
BH4	1.15	1.35	gravel	Base of hole
BH6	0.00	0.05	silt/clay	7.5YR 3/2 dark brown, Ag4. Sharp boundary
BH6	0.05	0.30	chalk	2.5Y 1/4 white Ag2 Gs2 (chalk). Sharp boundary
BH6	0.30	0.40	Fine sand/silt	10YR 3/3 dark brown Ag3 Ga1. sharp boundary
BH6	0.40	1.05	Fine sand/silt	10YR 6/2 light brown grey Ag3 Ga1, with lensing. Sharp boundary
BH6	1.05	1.35	peat	10YR 2/1 black. Ag4 Sh+ Dl+, with Gg(mag)+ towards base. Sharp boundary
BH6	1.35	1.50	gravel	Base of hole
BH7	0.00	0.15	silt/clay	7.5YR 3/2 dark brown, Ag4. Sharp boundary
BH7	0.15	0.45	Chalk	2.5Y 1/4 white Ag1 Gs2 Gg(min)1 (chalk). Sharp boundary
BH7	0.45	0.80	Fine sand/silt	10YR 3/3 dark brown Ag2 Ga2 Gg(min)+ (flint). Diffuse boundary
BH7	0.80	0.90	Fine sand/silt	10YR 4/2 dark grey brown. Ag3 Ga1. sharp boundary

BH7	0.90	1.15	Fine sand/silt	10YR 6/2 light brown grey Ag3 Ga1. Sharp boundary
BH7	1.15	1.45	peat	10YR 2/1 black. Ag4 Sh+ Dl+. Sharp boundary
BH7	1.45	1.75	gravel	Base of hole

Appendix 2 – Bore Hole Logs Stratigraphy

Bore	Top	Base	Stratigraphy
BH1	0	0.25	Topsoil
BH1	0.25	0.66	Alluvium
BH1	0.66	0.85	Peat
BH1	0.85	1	Wittering Formation
BH3	0	0.28	Topsoil
BH3	0.28	0.45	Alluvium
BH3	0.45	0.55	Channel
BH3	0.55	1.1	Peat
BH3	1.1	1.3	Wittering Formation
BH4	0	0.2	Topsoil
BH4	0.2	0.6	Channel
BH4	0.6	1.15	Peat
BH4	1.15	1.35	Wittering Formation
BH6	0	0.05	Topsoil
BH6	0.05	0.3	Bank
BH6	0.3	0.4	Palaeosol
BH6	0.4	1.05	Channel
BH6	1.05	1.35	Peat
BH6	1.35	1.5	Wittering Formation
BH7	0	0.15	Topsoil
BH7	0.15	0.45	Bank
BH7	0.45	0.8	Alluvium
BH7	0.8	0.9	Palaeosol
BH7	0.9	1.15	Channel
BH7	1.15	1.45	Peat
BH7	1.45	1.75	Wittering Formation

Appendix 3 – Bore Hole Logs Location

Bore	Easting	Northing	Elevation	TD
BH1	435397.337	122920.941	17.088	1.75
BH3	435401.299	122920.241	17.280	1.50
BH4	435402.14	122920.165	17.442	1.35
BH6	435403.053	122919.901	17.588	1.30
BH7	435404.077	122919.643	17.623	1.00