PROPOSED ENVIRONMENTAL STRATEGY FOR AN ARCHAEOLOGICAL INVESTIGATION AT HYDE LAUNDRY WINCHESTER HAMPSHIRE (NGR: SU 48250 29895)



1. INTRODUCTION

The study area has been the subject of a Detailed Archaeological and Historical Assessment carried out by Stephen Priestley MA of Border Archaeology and its archaeological and geoarchaeological potential has thus been assessed based on the consultation of a range of primary and secondary sources.

The site comprises the former Hyde Laundry premises at the junction of Hyde Abbey Road and Gordon Road Winchester and lies at approximately 38m OD. Planning consent has been issued for a mixed commercial/residential development conditional upon completion of an archaeological programme of work comprising field evaluation and geoarchaeological investigation and recording.

Although the urban area of Winchester is classified as Unsurveyed in the Soil Survey of England and Wales (SSEW 1983), the predominant soil type to the NE of the study area consists of the earthy eutro-amorphous peat soils of the ADVENTURERS' 3 (1024c) series, comprising deep peat soils with associated extremely calcareous mineral soils with some deep stoneless silty and clayey soils with a humose surface horizon in places. The underlying geology consists of fen peat, tufa and river alluvium.

Speed's map of 1611 and later 18th century map evidence both indicate that the study area lay within the eastern part of a large tract of land bounded by the Hyde Abbey Mill stream to the N, Upper Brook to the E and the City ditch to the S. This tract of land, shown as heavily planted with trees on Speed's map, appears to have been bisected into two unequal parts by a watercourse extending S of the Mill stream to the City ditch and is referred to on the Bedford estate map of c.1738 as Upper and Lower Park, respectively.

This watercourse appears to have survived (albeit partially altered) until the late 19^{th} century as it is shown on the OS 1^{st} edition 1:500 map dated 1873 and appears to have run approximately N-S through the western half of the present Hyde Laundry site. It subsequently appears to have been covered over when the existing Hyde Laundry site was built in 1888-89 and is not shown on the OS 2^{nd} edition map of 1897.

The area appears to have remained as open water meadow subject to flooding throughout the medieval and post-medieval periods, as indicated by the deep alluvial peats revealed during evaluation trenching undertaken in 1986 on the former Gordon Road timber yard immediately N of the Hyde Laundry site.

The results of a geotechnical survey carried out on the Hyde Laundry site in 2008 indicate the presence of 'made ground' extending to a depth of 1.75m, overlying a soft greyish-brown slightly gravelly clay with sub-rounded limestone, flint, sandstone and mudstone fragments, 1.05m thick,

which in turn overlaid a medium dense greyish sandy gravel (river terrace gravels) which extended to a maximum depth of 8.00m below ground level.

It is Border Archaeology's intention to open trenching with a stepped layout both inside an existing building and in an open area to the N of it to a maximum depth of 3m, with geoarchaeological borings subsequently being sunk by ARCA Winchester from the base of the trenching through the underlying depositional sequence.

2. SITE HISTORY

2.1 Prehistoric

Information regarding the date, nature and extent of prehistoric activity in the vicinity of the site is extremely limited. The Hyde Laundry site is situated approximately 100m N of the NE corner of the substantial Iron Age *oppidum* or defended settlement enclosure of Oram's Arbour, which appears to have been established in the 1st or 2nd century BC at a strategic crossing point of the River Itchen.

Evidence for prehistoric occupation to the N of the defended enclosure of Oram's Arbour is extremely limited. An excavation carried out in 1997-8 on the site of the former Marston's Brewery in Hyde Street, approximately 100m SW of the study area) prior to residential development revealed a complex of pits containing relatively unabraded pottery, burnt flint and an inverted horse skull, interpreted as being of late Iron Age date (WMS, 1998)

2.2 Roman

The Hyde Laundry site lies on the eastern fringes of the extra-mural suburb which appears to have extended to the N of the Roman walled city of *Venta Belgarum*, along the course of the road to Silchester (running roughly parallel and to the E of Hyde Street). The extent of the suburban area to the N of the Roman town has not yet been fully established and consequently it is possible that archaeological deposits and features associated with Roman suburban activity may be encountered within the study area. Archaeological records of Roman activity in the immediate locality of the Hyde Laundry site are restricted to chance finds of a small quantity of Roman coarseware pottery sherds of 2nd-3rd century date made at No. 50 Hyde Abbey Road (EWC 7817) and a bronze coin of Constantine I found in gardens at No. 27 Hyde Abbey Road (EWC6455).

However, archaeological evidence suggesting that the extra mural settlement may have extended further to the E of the Silchester road than has usually been assumed is supplied by the results of a recent programme of archaeological investigation at the Marstons Brewery site (located to the SW of the study area) undertaken in 1997-8 (WMS, 1998).

The excavations undertaken in the SW corner of the former Marston Brewery site revealed deposits and features associated with Roman suburban occupation immediately E of the probable line of the Silchester road, evidence for which appeared to have been destroyed by the presence of post-medieval cellarage connected with the Brewery. The depth at which Roman occupation features were identified varied between 1.1 to 1.5m beneath the ground level of the modern workshop. Of particular significance was the discovery of a metalled surface consisting of smoothed flints, approximately 6.9m wide and oriented E-W, with evidence of repair and usage

extending into the late Roman period. Interpreted as a probable extra-mural street branching to the E of the Silchester road, its existence strengthens the possibility for further evidence of Roman suburban occupation to have extended eastwards towards present day Hyde Abbey Road.

Evidence of a late Roman or early post-Roman phase of activity on the site, either contemporary with or post-dating the metalled surface was represented by a series of shallow intercutting, badly truncated pits (some of which may actually have been animal burrows) containing a small quantity of heavily abraded Roman pottery, and a large square pit (2m square) cut into the metalled road surface. This large pit, extending to a depth in excess of 2.5m, contained a large quantity of animal bone and pottery (chiefly of late Roman date). The sequence of deposits within the pit indicated at least two distinct phases of use, initially as a cess pit and subsequently as a domestic rubbish pit, separated by a substantial orange clay sealing deposit around 0.8m in thickness.

2.4 Medieval/Post-medieval

The available historical evidence relating to the study area, though somewhat limited, nevertheless clearly indicates that the study area lay within an extensive area of enclosed water meadows during the medieval and post-medieval periods (until the construction of the Hyde Laundry in 1888), lying at least 30-40m to the N of the medieval City ditch and to the S and SE of the monastic precinct of Hyde Abbey (founded in about 1110). It appears that these were in the possession of Hyde Abbey by no later than the 13th century. It is possible that they may have been included with the grant of 'a certain meadow lying to the north of the renowned city of Winchester, which the River Itchen bounds on the east' made by King Ethelred II to Bishop Aethelgar of Selsey (also abbot of the New Minster) in 983 (Rumble, 2002, 149-55).

The Abbey's tenure of the water meadows immediately N of the city ditch was disputed by the Crown on several occasions during the 13th century; the records of these disputes indicate that a significant proportion of these meadows had probably been enclosed with ditches by the late 13th century. In spite of these disputes with the Crown, it appears that Hyde Abbey largely retained possession of these water meadows until the Dissolution and they subsequently formed part of the post-Dissolution estate of Hyde House which remained largely intact until the mid 19th century.

Early cartographic evidence, in particular John Speed's map of 1611 and two later 18th century maps of the Hyde House estate, indicate that the study area lay within the eastern part of a large tract of land bounded by the Hyde Abbey Mill stream to the N, Upper Brook to the E and the City ditch to the S. This tract of land, shown as heavily planted with trees on Speed's map, appears to have been bisected into two unequal parts by a watercourse extending S of the Mill stream to the City ditch and is referred to on the Bedford estate map of c.1738 as Upper and Lower Park respectively.

This watercourse appears to have survived (albeit partially altered) until the late 19th century as it is shown on the OS 1st edition 1:500 map dated 1873 and appears to have run approximately N-S through the western half of the present Hyde Laundry site. It subsequently appears to have been covered over when the existing Hyde Laundry site was built in 1888-89 and is not shown on the OS 2nd edition map of 1897.

The archaeological investigations appear to corroborate the documentary evidence indicating that the site was open water meadows subject to flooding throughout the medieval and postmedieval periods, indicated by the deep alluvial peats revealed during evaluation trenching undertaken in 1986 on the former Gordon Road timber yard immediately N of the Hyde Laundry site.

The evaluation, consisting of three long trenches dug to a maximum depth of 3.15m revealed a layer of peat lying below modern soil and rubble deposits, the latter extending to depth of approximately 1.9m below ground level (defined as 37.86m AOD). The peat deposit was generally 0.5 to 0.75m in thickness, but increased to a depth of 1.1m in Trench 2 (34.84m AOD), situated at the N end of the site adjacent to Hyde Abbey Mill stream, defining the northern boundary of the site. It consisted of compacted, decayed vegetable matter, interpreted as water vegetation & material carried & deposited by streams and presumably represented a lengthy period of use of the site as water meadows during the medieval and post-medieval period.

Three worked timbers, two squared timbers and a pointed stake were recovered from the peat towards the north end of Trench 1, close to the edge of the mill stream. The date and purpose of these timbers is unknown, a possible hypothesis is that they formed part of a timber revetment of the stream bank erected by the monks of Hyde Abbey during the medieval period.

3. ENVIRONMENTAL STRATEGY

There is a presumption based on evidence recovered from the investigations detailed above and indicated by the results of the 2008 geotechnical survey report that significant archaeological and geoarchaeological deposits underlie a substantial accumulation of later post-medieval/modern overburden from around 2.00m below existing ground level.

The geotechnical survey also indicated the survival of peat deposits in at least part of the site and its heavily waterlogged nature strongly suggests the likelihood of encountering preserved organic remains in the form of wood or timber structures, leather, textile, fibrous material, cordage, keratinous and osseous materials, bone, antler, food remains and other organic artefactual finds, in addition to a range of Palaeo-environmental evidence.

In view of the potential importance of the site in terms of the sedimentary history of this area of Winchester, a programme of geoarchaeological characterisation forms a substantial component of the project and a methodology for this work has been submitted by the Company's nominated specialist contractor ARCA Winchester, the results of which will be integrated into the emerging Winchester deposit model. Additionally, and in view of the likely discovery of well-preserved organics, quite possibly in the form of timber stream bank revetments or similar structural remains, a conservation specialist will be available to visit the site as required in the event of discovery to advise on the following: 1) materials and equipment essential for the recovery, lifting and storage of waterlogged organic materials, as well as time and cost estimates; 2) spot dating; 3) storage; 4) transportation, including appropriate packaging to avoid damage to waterlogged objects; and 5) preservation in-situ.

Winchester City Museum will be contacted prior to the start of fieldwork to obtain advice regarding a site-specific retention and disposal policy in respect of preserved organic materials.

3.1 Recovery of palaeoenvironmental data

Two types of depositional environment are likely to be encountered during the course of the evaluation, these being 1) dry and 2) waterlogged/peaty deposits. Although comparable inasmuch as all deposits should be well sealed and free from contamination, these two environments differ markedly in terms of recoverable evidence and this in turn will obviously affect the types of question that the samples are able to answer.

The study area represents an under-researched part of Winchester and the broad aim of the environmental strategy is to characterise it in terms of changing patterns of land use, potentially from the prehistoric period onwards, using methodologies outlined in *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2002), *Waterlogged Organic Materials Guidelines* (English Heritage 2010), *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood* (English Heritage 2010) and *Piling and Archaeology: An English Heritage guidance note* (2007). The range of Palaeo-environmental material encountered is likely to be significant and to include, by analogy with findings from investigations carried out at the site of the former Hyde Abbey fishponds to the N of the Hyde Laundry site, pollen, diatoms and seeds, analysis of which has, in this case, provided indications of an open-pasture environment in the immediate vicinity of the fishponds during the medieval period.

This is consistent with the limited documentary evidence relating to the area. Prior to the 10th century, the status of the area is understandably obscure insofar as no documentary references survive from this period. However, based on a study of extant medieval sources, it appears to have been managed as part of an extensive tract of enclosed water meadow, which was in the possession of Hyde Abbey by no later than the 13th century and which remained largely intact until the mid 19th century as part of the post-Dissolution estate of Hyde House. Moreover, it is possible that its use as meadowland extended back into the pre-Conquest period, as attested by a reference to 'a certain meadow lying to the north of the renowned city of Winchester, which the River Itchen bounds on the east' granted by King Ethelred II to Bishop Aethelgar of Selsey (also abbot of the 'New Minster', the name by which Hyde Abbey was known at that time) in 983 (Rumble 2002, 149-55).

Other uses cannot be discounted and the site's proximity to flowing water does not rule out the possibility of industrial activity or some highly specialised form of cultivation, such as viticulture, a practice attested, albeit somewhat tenuously, to the N of the study area at the former Hyde Abbey fishponds site in 2002, where a single grape grain was recovered from a geoarchaeological sample. The intention is thus to recover sufficient diagnostic environmental data to provide a sequence defining both the broad character of the site and its environs in ecological, social and economic terms as well as more specific evidence relating to particular activities and practices and to integrate these results with sequences obtained elsewhere, specifically with evidence from the former Abbey fishponds.

In view of the likely presence of a waterlogged anoxic environment represented by alluvial peat deposits underlying the present Hyde Laundry site to an estimated thickness of 0.50-1.10m, substantial finds of preserved wood may be anticipated during the course of the proposed investigation, specifically where the line of a watercourse extending S of the mill stream appears to have run directly through the western half of the study area. Based on the results of an

archaeological evaluation undertaken in 1986 in the timber yard situated immediately to the N of the site prior to construction of the existing housing development (EWC8016), this material lies below modern soil and rubble extending to depth of approximately 1.90m below ground level and is likely to be composed of compacted, decayed vegetable matter, interpreted as water vegetation and material carried and deposited by streams and presumably represented a lengthy period of use of the site as water meadows during the medieval and post-medieval period. Three pieces of converted timber, possibly representing part of a revetment of the stream bank erected by the monks of Hyde Abbey during the medieval period, were recovered from the peat towards the N end of evaluation trench 1, close to the edge of the mill stream, although their actual date and function remain unknown.

Such remains are relatively rare on archaeological sites and as such are of considerable importance in terms of the potential information yielded, providing evidence of woodland management etc.

3.1.1 Samples from dry deposits

Samples will be taken from deposits believed not to be contaminated or of mixed/secondary origin (e.g. backfills or deposits with a high degree of residual/intrusive artefactual material); those thought or known to contain well preserved biological remains; deposits likely to be closely datable and those interpretatively important at the context or site level.

These will be analysed for charcoal, molluscs, charred plant remains, mineral replaced plant and insect remains, faunal assemblages and pottery. The following retrieval strategies will be applied to deposits that appear to be of primary origin and potentially to contain biological remains. Samples, other than monolith samples that cross stratigraphic boundaries, will be taken from individual contexts and will comprise 40-60L or 100% of the sample if smaller.

a) Large animal bone fragments, mollusc shells and carbonised materials recovered by hand-collection and recorded through the finds system.

b) Deposits that appear to contain vertebrate & mollusc assemblages and plant macrofossils to be sieved using 10mm mesh to enhance recovery of these and also of small artefacts.

c) Fish, insects, small mammals and parasites, mineralised and carbonised seeds and chaff etc, together with potential industrial residues, will be recovered from samples by fine-mesh sieving and flotation separation (to be undertaken by Archaeological Services University of Durham).

Faunal and floral microfossils will be recovered from specialist sub-samples, where appropriate, with pollen analysis potentially providing evidence of background flora to compare with local flora from plant macrofossil evidence and insect (e.g. beetle) remains.

Monolith samples and small samples from discrete contexts will be collected from undisturbed sequences which appear in light of on-site specialist advice to have the potential for a dateable environmental sequence or information about deposit origin and grain structure and condition.

3.1.2 Waterlogged/peaty deposits

Monoliths will be recovered from convenient and relevant sections for sub-sampling for the recovery of pollen and other small biological remains. Where possible, accompanying 20L bulk samples along the same sections for the recovery of macro plant remains, insects and wood fragments. These monoliths will be radiocarbon dated top and bottom initially, and at other points along the monolith as advised at the assessment stage for subsequent analysis. Additionally, samples of preserved wood and any other organic finds will be recovered and conserved for subsequent analysis and interpretation by approved specialist contractors. It is recognised that waterlogged organic objects are unstable when found and sensitive to rapid changes in environmental conditions, which, if not carefully controlled, can lead to the deterioration of artefacts upon excavation (English Heritage 2010, 5).

3.2 Preserved artefactual material exposed during the course of the investigation

All artefactual material identified below the level of the post-medieval/modern overburden, or samples thereof, will be collected and recorded.

Where substantial assemblages of preserved organic remains, for example, timber structures, are encountered, investigation will be carried out sufficient to characterise these by means of minimal short-term exposure. To this end, a suitably qualified and experienced specialist will be available to carry out site visits at short notice to ascertain whether the find is indeed anthropogenic or of natural origin and to advise on the justification for further exposure and investigation, as well as to arrange for any immediate conservation requirements.

3.3 Sampling for scientific dating purposes

Both radiocarbon and dendrochronological dating will be considered and, again, specialist on-site advice will be sought as circumstances dictate.

Optically Stimulated Luminescence (OSL) is another possible option based on its application for dating buried sediments provided the material itself is responsive and that consideration is given to surrounding environmental factors such as water content, which may inhibit the absorption of radiation. Should this technique be adopted, specialist samples will be taken using either an opaque sample tube, with a nominal sample size of 500g, or as an intact block to be wrapped in an opaque material upon removal from the surrounding sediment.

It should be noted, however, there is a significant cost implication in undertaking such a programme of scientific dating, particularly with regard to OSL

3.4 Site-specific Palaeo-environmental research agenda

Based on the foregoing, the research aims can be summarised as follows:

1. To obtain information relating to exploitation of the natural environment; for example, to recover any specific information relating to water management features and produce a detailed vegetational profile of the surrounding environment in order to assess land-use practices, e.g. does the evidence support its use as meadowland during the late Saxon and medieval periods? Other environmental indicator species such as molluscs and insects will also be sought.

2. To enable the study of contemporary craft techniques

3. To provide information on diet and changing dietary preferences and practices over time based on assessment of any preserved foodstuffs or plant and animal waste.

4. To recover information on industrial activity, whether under monastic or secular control, specifically, any such activities such as butchery, tanning or dyeing which produce noxious by-products and which would thus presumably be sited well outside the City defences and monastic precinct and which also require the presence of readily available running water.

5. To elicit patterns of trade based on the survival of any non-local materials and artefacts

6. To recover samples of preserved materials for use in the dating of assemblages. Waterlogged organic finds can, for example, provide the material for carbon dating (C14) whilst some species of waterlogged are suitable for dendrochronology. Additionally, for some periods, particular categories of object, such as garments, textiles, shoes and scabbards, can be closely datable, in certain circumstances more so than pottery (English Heritage 2010, 6).

7. To compile a detailed assessment of the post-glacial depositional history of the study area by means of geoarchaeological sediment profiling.

3.5 Assessment of potential

The potential of any recovered material to address the research priorities outlined above in section 3.4 will be assessed by ASUD acting as the Company's nominated specialist contractor as soon as possible after excavation to avoid loss of information and will include the following considerations (English Heritage 2010, 10-11):

- 1. Quantity and condition of material
- 2. Work required for identification and archive transfer
- 3. Level of conservation
- 4. Research potential
- 5. Methodology
- 6. Time/ cost estimates

The results of this stage of the project will form the basis of an updated project design and possibly a review of the retention/disposal policy in the light of a clearer understanding of the quantity and quality of recoverable material.

3.6 Analysis

Any provision for further analysis will be based on recommendations supplied to Border Archaeology by its nominated specialist contractor at the Assessment stage and detailed in an updated project design. This will include stabilisation of waterlogged artefacts.

3.7 Archive deposition

Prior to deposition, Border Archaeology will ensure the archive is complete and in a stable, ordered and accessible condition with all data generated and information recovered during the course of the fieldwork, assessment and analysis stages will form part of the final archive. Specific archive deposition requirements will be obtained from Winchester City Museum.

3.8 Dissemination

Results will be made available as soon as possible following completion of post-excavation assessment, analysis and conservation in the form both of a technical report and subsequent publication. Appendices detailing all specialist work undertaken together with results will be incorporated into the final technical report.