

The Replacement of the Log Flume, Alton Towers Resort, Staffordshire

Written Scheme of Investigation

2016



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Prepared on behalf of: Merlin Entertainments Group
Ltd for Alton Towers Resort

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Planning Reference: SMD/2016/0315

Local Authority: Staffordshire Moorlands
District Council

Site central NGR: 407628 343522

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1 INTRODUCTION

1.1 Project and Planning Background

1.1.1 This Written Scheme of Investigation (WSI) has been prepared by Archaeological Research Services Ltd (ARS Ltd) on behalf of Merlin Entertainments Group Ltd for Alton Towers Resorts. It details a scheme of works for an archaeological watching brief to be carried out at the site of a proposed new attraction at Alton Towers Resort in the parish of Farley, Staffordshire Moorlands District. The proposed development would include the demolition of the existing Log Flume Attraction and the installation of a new rollercoaster and construction of associated buildings, landscaping and groundworks.

1.1.2 Planning permission (SMD/2016/0315) has been granted by Staffordshire Moorlands Council to allow for the development works. Condition number 7 of the planning permission requires that:

'7. Prior to any below ground works of the development commencing, a written scheme of archaeological investigation ('the Scheme') shall be submitted for the written approval of the Local Planning Authority. The Scheme shall provide details of the programme of archaeological works to be carried out within the site, including post-excavation reporting and appropriate publication and on site interpretation. The Scheme shall thereafter be implemented in full in accordance with the approved details.'

1.1.3 This document has been prepared to fully comply with the stipulations as laid out by the planning permission. It describes the objectives and methods to be employed and has been approved, in final issue form, by the Staffordshire County Council (SCC) Principal Archaeologist.

1.1.4 The aim of the programme of works is, in line with the *National Planning Policy Framework* (NPPF) paragraph 141 (DCLG 2012), to record and enhance understanding of the significance of any heritage assets to be lost during the proposed development in a manner proportionate to their importance, and to make this evidence (and any archived generated) publically accessible.

1.2 Site Description and Location

1.2.1 The 'red line boundary' of the proposed development area (hereafter 'PDA') covers an area of c.2.8ha and is depicted by a red polygon on Figure 1. The PDA is located towards the central northern area of the Alton Towers Resort and is centred at NGR SK 07628 43522 (Figure 1).

1.3 Landform, Geology and Soils

1.3.1 The underlying solid geology of the north-eastern part of the PDA consists of sandstone of the Bromsgrove Sandstone Formation, whilst the remainder of the PDA is underlain by mudstone of the Bromsgrove Sandstone Formation. No superficial geology is recorded for the PDA by the British Geological Survey (BGS 2016).

1.3.2 The soils of the PDA belong to the Bromsgrove Soil Association (541b), and are typical brown earths (SSEW 1983a). These soils form over Permo-Triassic and



Carboniferous sandstone and siltstone, and are characterised as ‘Well drained reddish coarse loamy soils mainly over soft sandstone, but deep in places. Associated fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Risk of water erosion’ (SSEW 1983b).

2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.1 A desk-based assessment (DBA) was produced ahead of the submission of the planning application for this development (Burpoe 2016). The assessment identified a total of 23 archaeological sites within 1km of the PDA, including a Bronze Age sword, an Iron Age hillfort and a hoard of Roman gold coins. There are no known archaeological sites within the PDA itself, although the partly buried wall of the former deer park runs across the centre of the PDA.

2.2 The DBA did not identify any known archaeological remains within the PDA. Much of the northern section of the PDA was previously disturbed as a result of the landscaping of this area during the development of the site as a theme park, and it was concluded that the archaeological potential of this area was considered to be low. However, while there has been disturbance within this area due to landscaping and the construction of the pond and fountain, there is the potential for buried archaeological remains to survive within areas where landscaping may have been more superficial.

2.3 One heritage asset that is located within the boundaries of the PDA is the wall of the deer park, which is potentially of medieval origin. This asset runs east-west across much of the centre of the PDA and corresponds with the boundary of the Registered Park and Garden at this point (NHLE 1000191). Part of the deer park wall in this area has already been lost, probably as a result of the construction of the Log Flume attraction c.30 years prior.

3 AIMS AND OBJECTIVES

3.1 Regional Research Aims and Objectives

3.1.1 Research priorities identified in *The Archaeology of the West Midlands: A Framework for Research* (Hunt 2001, 185-6) for the study of the hinterlands during the medieval periods includes investigating and defining these areas to develop a consistent approach and framework for comparative studies.

3.2 Watching Brief Objectives

3.2.1 The objective of the watching brief is to ensure that any potential archaeological remains that may be encountered during the course of groundworks are not removed without first being recorded and interpreted.

3.2.2 The watching brief will involve continuous monitoring during ground works, to be re-assessed, and potentially to take place on an intermittent basis, depending upon the nature of the deposits encountered on site, with visits to be agreed on site, and in discussion with the SCC Principal Archaeologist, in order to monitor an appropriate proportion of groundwork elements or focused upon areas of identified potential.



4 WATCHING BRIEF

4.1 Coverage

4.1.1 The watching brief involves the observation of groundworks, including foundation trenching, service/utility trenches or landscaping that is likely to impact upon any potential archaeological remains (Figure 2).

4.2 General Statement of Practice

4.2.1 All elements of the archaeological watching brief will be carried out in accordance with the Chartered Institute for Archaeologist (CIfA) *Code of Conduct* (2014a) and *Standards and Guidance for Archaeological Watching Briefs* (2014b).

4.2.2 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording.

4.2.3 All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification.

4.2.4 All relevant ground works will be undertaken by a suitable mechanical excavator fitted with a toothless ditching bucket working in plan.

4.2.5 ARS Ltd will ensure that plant or machinery will not be operated in the immediate vicinity of any archaeological remains until they have been recorded.

4.2.6 Contractors and plant operators will be notified that any observations of archaeological remains must be reported immediately to the archaeologist on site.

4.2.7 Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the change to respond appropriately and in line with the SCC Principal Archaeologist's requirements.

4.2.8 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment will be prepared before commencement on site.

4.3 Methodology

4.3.1 Hard standing, modern overburden and topsoil will be removed by a mechanical excavator using a toothless ditching bucket to the first significant archaeological horizon. Mechanical excavation of the overburden will be undertaken in level spits under continuous archaeological supervision.

4.3.2 Where archaeological features and/or deposits are identified during the watching brief, then a sufficient quantity of the said features will be investigated by hand to allow their date, nature and degree of survival to be ascribed.

4.3.3 All excavated spoil will be scanned visually to recover small finds. Finds so recovered will be recorded with their location of origin ascribed. Finds will be retained and recorded.



4.4 Sampling, Faunal Remains and Treasure

4.4.1 This section outlines sampling methodologies to be utilised in all excavation types.

4.4.2 For sealed and stratigraphically secure deposits that have the potential to provide environmental evidence relating to diet and economy, dating evidence or land use regime, a minimum of 40 litres of sample will be taken, or 100% of the sample if smaller.

4.4.3 In the case of waterlogged or anaerobic deposits a minimum sample size of 20L will be taken.

4.4.4 Should a sequence of superimposed deposits of note be present column sampling may be considered.

4.4.5 In all instances sampling strategies will be in accordance with guidelines issued by Historic England's *Environmental Archaeology: A Guide to the Theory and Practice Methods, from sampling and recovery to post excavation* (Campbell *et al.* 2011) and will be targeted in order to explore the levels and types of preservation present.

4.4.6 Should other types of environmental deposits be encountered, appropriate specialist advice will be sought and an appropriate sampling strategy devised. Samples will be assessed by a suitable specialist with provision for further analysis as required. Advice from the Historic England Scientific Advisor will be taken as appropriate.

4.4.7 Any human remains will initially be left *in-situ* and, if deemed necessary, removal will be undertaken following once a Coroners licence has been obtained in accordance with the relevant Ministry of Justice regulations and in discussion with the SCC Principal Archaeologist.

4.4.8 Finds of "treasure" will be reported to the Coroner in accordance with the Treasure Act (DCMS 2008). The Portable Antiquities Liaison Officer will also be notified.

HM Coroner
Ian S Smith
Coroner's Chambers
547 Hartshill Road
Stoke-on-Trent
ST4 6HF

Finds Liaison Officer
Victoria Allnatt
Birmingham Museum and Art Gallery
Chamberlain Square
Birmingham
B3 3DH

Tel: 01782 234777

Tel: 01213 488225

e-mail: Victoria.Allnatt@irminghammuseums.org.uk

4.4.9 The SCC Principal Archaeologist will also be notified and, if necessary, a site meeting arranged to determine if further investigation in the vicinity of the find spot is required.



4.5 Recording

4.5.1 Site recording will follow standard conventions outlined in the *Site Recording Manual* of Museum of London Archaeology Service (MoLAS) (2002).

4.5.2 The site will be tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. The site will be recorded in accordance with the ARS Ltd. field recording manual.

4.5.3 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pre-printed record sheets with text descriptions appropriate to the work. Accurate measured scale plans and sections/elevations will be drawn where required at the appropriate and in accordance with best practice. In addition to relevant illustrations, provision for rectified photographic recording shall be made, if deemed necessary.

4.5.4 A plan of the excavated areas will be maintained, features noted and section lines recorded. All drawings will be carried out at an appropriate scale and all contexts will be recorded using a single context recording system.

4.5.5 Sample representative levels will be taken to record the maximum depth of excavation and /or natural should no archaeological features be uncovered.

4.5.6 The site archive will include plans and sections at an appropriate scale, a scale photographic record, and full stratigraphic records on recording forms/context sheets or their electronic equivalent.

4.5.7 A stratigraphy of the site will be recorded.

4.5.8 The heights above sea level will be recorded for all deposits and features in metres above Ordnance Datum (aOD).

4.5.9 Site photography will be in 35mm black & white print and high resolution (7 megapixel or greater) colour DSLR photography. The photographic record will encompass all encountered archaeological entities. In addition key relationships between entities, where these help demonstrate sequence or form, will also be photographed. A clearly visible, graduated metric scale will be included in all record shots. A supplementary record of working images will be taken to demonstrate how the site was investigated and what the prevailing conditions were like during excavation.

4.6 Finds Processing and Storage

4.6.1 All finds processing, conservation work and storage of finds will be carried out in accordance with the ClfA (2014c) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* and the UKIC (1990) *Guidelines for the Preparation of Archives for Long-Term Storage*.

4.6.2 Artefact collection and discard policies will be appropriate for the defined purpose.

4.6.3 Bulk finds which are not discarded will be washed and marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be



appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

4.6.4 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper).

4.6.5 Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated.

4.6.6 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

4.6.7 The deposition and disposal of artefacts will be agreed with the legal owner and The Potteries Museum & Art Gallery. All finds except treasure trove are the property of the landowner.

4.6.8 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

5 REPORT

5.1 Within six weeks of completion of the fieldwork, ARS Ltd will produce a report which will include the following:

- ♦ Non-technical executive summary
- ♦ Introductory statement
- ♦ Aims and purpose of the project
- ♦ Methodology
- ♦ History of the site.
- ♦ A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- ♦ Illustrations of all archaeological features with appropriately scaled hachured plans and sections
- ♦ An objective summary statement of results
- ♦ Conclusions
- ♦ Supporting data – tabulated or in appendices
- ♦ Index to archive and details of archive location
- ♦ References
- ♦ Statement of intent regarding publication
- ♦ Confirmation of archive transfer arrangements



- ♦ A copy of the WSI and OASIS form.

5.2 A draft copy of the report will be provided to the SCC Principal Archaeologist for comment before the completion of the final report.

5.3 One bound copy of the final report with a digital copy of the report in PDF/A format on disk will be deposited with the Staffordshire Historic Environment Record (HER). A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeological Data Service.

5.4 Should another archaeological contractor be commissioned to undertake fieldwork at the site as part of this project, the WSI should be amended and resubmitted to the SCC Principal Archaeologist for approval.

6 MONITORING ARRANGEMENTS

6.1 At least two weeks prior notice of the commencement of the trenching to be given to the SCC Principal Archaeologist:

Stephen Dean
Principal Archaeologist
Staffordshire County Council
No.1 Staffordshire Place
Stafford
ST16 2LP

Direct Dial: 01785 277290
Mobile: 07530 054235

6.2 ARS Ltd will liaise with Stephen Dean, the SCC Principal Archaeologist, at regular intervals throughout the course of the work.

6.3 The client will afford reasonable access to the SCC Principal Archaeologist, or his representative, for the purposes of monitoring the archaeological mitigation

7 STAFFING

7.1 The Project Manager for the watching brief will be Reuben Thorpe MCIfA, FSA Projects Manager at ARS Ltd. The Fieldwork Project Officer will be Ben Dyson, Project Officer at ARS Ltd.

7.2 Specialist analyses will be carried out by appropriately qualified specialists as detailed subject to availability and any additional specialist to be appointed in consultation with the Principal Archaeologist.

- | | |
|----------------------------------|-----------------------------|
| ♦ Flint and prehistoric pottery: | Dr Robin Holgate MCIfA, FSA |
| ♦ Romano-British pottery: | Ian Rowlandson |
| ♦ Samian Ware: | Dr Gwladys Monteil |
| ♦ Medieval and Post-Medieval | Mike Wood MCIfA |



metalwork, glass and clay pipes:

- ♦ Plant macrofossils and charcoals: Elise McLellan
- ♦ Human and animal bone: Milena Grzybowska
- ♦ Radiocarbon dating: Prof Gordon Cook (SUERC)
- ♦ Finds conservation: Vicky Garlick (Durham University)

8 ARCHIVE DEPOSITION

8.1 Deposition Guidelines

8.1.1 One bound copy with a digital copy of the final report in PDF/A format on disc will be deposited with the Staffordshire Historic Environment Record (HER). A copy of the report will be updated as part of the OASIS record (see section 8.2 below) for online access via the Archaeological Data Service

8.1.2 Should the project not produce archaeologically significant finds, then it is not necessary to deposit an archive with The Potteries Museum & Art Gallery. This is in line with The Potteries Museum & Art Gallery *Guidelines for the preparation and preservation of archaeological archives* (2008a) and *Conditions for the acceptance of archaeological material from excavations and fieldwork* (2008b) as set out in the archaeological brief.

8.1.3 If the project produces archaeologically significant finds, then the Principal Archaeologist for Staffordshire County Council and Museum Curator will be notified at the earliest opportunity, and an accession number will be requested. In addition, a digital, paper and artefactual archive will be prepared by ARS Ltd, consisting of all primary written documents, plans, sections, photographs and electronic data (in a format to be agreed by The Potteries Museum & Art Gallery).

8.1.4 The archive will be deposited in line with the ClfA (2013d) *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, Society of Museum Archaeologists (1993) *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*, and in a format agreed by the Potteries Museum & Art Gallery, and will be deposited within two months of the completion of the report.

8.1.5 The SCC Principal Archaeologist and Museum Curator will be notified in writing on completion of the fieldwork with projected dates for the completion of the report and deposition of the archive. The date for deposition of the archive will be confirmed in the report and the SCC Principal Archaeologist informed in writing on final deposition of the archive.

8.1.6 All retained artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive.

8.1.7 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be deposited with the archive as digital images on disc.



8.2 OASIS

8.2.1 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the Staffordshire HER. This will include an uploaded .pdf version of the entire report.

8.2.2 The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011).

9 GENERAL ITEMS

9.1 Health and Safety

9.1.1 All work will be carried out in accordance with The Health and Safety at Work Act 1974. Specific health and safety policies exist for all our workplaces and all staff employed will be made aware of the policy and any relevant issues. The particular risks involved with this project will be assessed, recorded and relevant mitigation measures put in place as part of a full risk assessment, which will be compiled in advance of fieldwork and will be read and signed by all on-site operatives. ARS Ltd retains Peninsula as its expert health and safety consultants.

9.2 Insurance Cover

9.2.1 ARS Ltd has full insurance cover for employee liability, public liability, professional indemnity and all-risks cover.

9.3 Changes to the Written Scheme of Investigation

9.3.1 Changes to the approved methodology or programme of works will only be made with prior written approval of the SCC Principal Archaeologist.

9.4 Publication

9.4.1 If significant archaeological remains are recorded, a summary of the project with, if appropriate, selected drawings, illustrations and photographs will be prepared for publication in online, journal or monograph form as appropriate. Additional popular articles will also be produced for local and/or national magazines as appropriate. The final form of the publication is to be agreed with the planning archaeologist and the client dependent on the results of the fieldwork.

10 REFERENCES

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