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**COTSWOLDS COMMUNITY,  
ASHTON KEYNES  
WILTSHIRE AND  
GLOUCESTERSHIRE**

**Palynological Assessment Report**

Cotswolds Community, Ashton Keynes  
Wiltshire and Gloucestershire

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Palynological Assessment Report

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## SUMMARY

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A palynological assessment was undertaken of sediments from two pits of Late Bronze Age/Iron Age date, which formed part of an alignment of about 200 pits, at Cotswolds Community, Ashton Keynes, and the site straddles the boundary between Wiltshire and Gloucestershire. The work was carried out by Lancaster University Archaeological Unit (LUAU) for Oxford Archaeological Unit on behalf of the client Cotswolds Aggregated Limited.

Two monoliths were obtained from fills [3443] and [3380] during the excavation of the site in February 2000. These were subsampled in the laboratory at LUAU and four samples were prepared for pollen analysis; these were examined microscopically and the pollen types and numbers were recorded.

The pollen data were scarce, of a poor quality, and consequently no conclusions could be drawn from them. On this basis no further palynological work is recommended on the fills of these pits.

## ACKNOWLEDGEMENTS

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Lancaster University Archaeological Unit (LUAU) would like to thank Oxford Archaeological Unit for commissioning this work on behalf of the client, Cotswolds Aggregated Limited, and to Dana Challinor in particular for her assistance with the project.

The pollen analysis and report writing were undertaken by Elizabeth Huckerby and the report was edited by Jamie Quartermaine and Rachel Newman. The project was managed by Jamie Quartermaine.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Four samples from two monoliths, derived from the fills of two pits were assessed palynologically by Lancaster University Archaeological Unit (LUAU) at the request of Dana Challinor, Palaeoenvironmental Co-ordinator at the Oxford Archaeological Unit. The pits were part of a large multi-phased complex at the Cotswolds Community, Ashton Keynes, which straddles the boundary between Wiltshire and Gloucestershire. The site includes Bronze Age, structures, fence lines and burials, Iron Age fence lines, water holes and burials, Roman trackways to the east and west of the site and also some burials, and early-medieval structures, water holes, and burials (D Challinor pers comm). In particular, the site includes an alignment of *c*200 pits, which included the two pits which are the subject of the present assessment (Pits [3442] and [3382]). The remit of the project was to assess the potential for pollen analysis of their fills.

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## 2. METHODOLOGY

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### 2.1 LABORATORY METHODS

- 2.1.1 Two monoliths were taken from the fills ([3443] (monolith 46), and [3380] (monolith 49)) of two pits ([3442] and [3382] respectively) which formed part of the pit alignment excavated by Oxford Archaeological Unit at Cotswolds Community in February 2000.
- 2.1.2 In the laboratory two small samples were taken from each monolith and prepared chemically for pollen analysis using the standard techniques of hydrochloric acid, hydrofluoric acid and acetolysis (Faegri and Iversen 1989). The residues were mounted in silicone oil and examined with an Olympus BH-2 microscope using x400 magnification routinely and x1000 for critical grains. Two complete slides were examined for each sample to assess the pollen. Pollen identification was carried out using the standard keys of Faegri and Iversen (1989) and Moore *et al* (1991) and a limited reference collection held at LUAU. Because the samples were only being assessed, pollen grains not identified rapidly were recorded in either larger categories eg Liguliflorae or as undifferentiated ones. Cereal-type grains were defined using the criteria of Andersen (1979); indeterminate grains were recorded using groups based on those of Birks (1973). Charcoal particles greater than 5µm were also recorded following the procedures of Peglar (1993).

### 2.2 PRESENTATION OF RESULTS

- 2.2.1 Pollen data were recorded quantitatively but because of the scarcity of pollen grains no percentages were calculated.

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## 3. RESULTS

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### 3.1 STRATIGRAPHY

3.1.1 The sediments were friable with no visible stratification in the monoliths. The material was extremely calcareous with limestone gravel and clay particles. A few small fragments of microscopic charcoal were seen in both monoliths and occasional pieces of unidentifiable plant material were recorded from the sieved residues.

### 3.2 RESULTS OF POLLEN ANALYSIS

3.2.1 Pollen preservation was very poor and only occasional grains were recorded on the slides.

3.2.2 Each of the two pollen samples from fill [3443] (monolith 46) had less than 30 pollen grains and fern spores on two slides. In both these samples only eight grains were identifiable and these were mainly dandelion-type (*Liguliflorae* 6), which, however poor the preservation, can usually be recognised. The remainder were either crumpled grains (13) or unidentifiable fern spores.

3.2.3 The two samples from fill [3380] (monolith 49) had slightly higher numbers of identifiable pollen grains but the majority were from dandelion-type species and grass. While this fill might provide some information about the feature, the data would be very unrepresentative because of the differential pollen preservation.



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## 4. DISCUSSION AND RECOMMENDATIONS

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### 4.1 DISCUSSION

- 4.1.1 The palynological assessment from the Cotswolds Community, Ashton Keynes, provided very little information about the pits or the surrounding environment. The poor pollen preservation provides an unreliable record of the pollen-rain thereby limiting any interpretation. However, the scarce pollen record does suggest that the landscape was cleared of trees as the only tree and shrub pollen recorded in all four samples are two grains of pine and one of ivy pollen. Some tree types, such as alder, birch or lime, produce pollen grains that are easily recognisable even when preservation is poor and the absence of all three from the pollen record may potentially indicate a real lack of trees near to the site rather than a factor of preservation. The apparently herbaceous vegetation, including some grains of cereal-type pollen, at the time when the pits were silting up may, therefore, in fact reflect that of the ecology at the time of deposition.

### 4.2 RECOMMENDATIONS

- 4.2.1 No further palynological analysis on samples from fill [3443] is warranted because of the poor pollen preservation. While it is possible that further analysis of material from fill [3380] might provide some additional information about the environment and function of the feature, the interpretation of the data would need to be critically assessed in view of the poor preservation. Therefore it is considered that such limited results would not justify further expenditure.

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