Stone House Hospital, Dartford

Watching Brief Report Addendum

Written by John Boothroyd

1 Introduction

1.1 Scope of work

1.1.1 With the continued redevelopment of Stone House Hospital further geotechnical investigations were required to fully evaluate levels of soil contamination. This provided an opportunity to add to information gathered during the previous archaeological watching brief undertaken in August 2010 (Stone House Hospital Archaeological Watching Brief Report, Oxford Archaeology November 2010), allowing for a more complete assessment of the sub-surface stratigraphic sequences and any archaeological remains present.

1.1.2 Information on the location, geology, topography and archaeological background of the site is not provided in this document. This is a supplementary document and should be read in conjunction with the main watching brief report, in which general background information is provided.

2 Project Aims and Methodology

2.1 Aims and objectives

2.1.1 The aim of the Watching Brief was to record the sediment sequences within each test pit in order to provide further information on the archaeological potential of the site. In order to achieve this aim the following objectives were set:

- To record the depth and extent of modern made ground across the site.
- To examine the degree of truncation of the Holocene sediment profile/top of the Pleistocene gravels.
- To record variations in the Pleistocene lithologies that may indicate the presence of interglacial deposits with reference to units of fine grained or fossiliferous deposits or horizons indicative of ancient landsurfaces.
- To identify any archaeological remains present within the test pits.

2.2 Methodology

2.2.1 The excavation of an additional 91 test pits was undertaken using a JCB mechanical excavator with a 0.3 m wide toothless bucket. The test pits were approximately 1.2 – 1.8 m in size and between 0.3 m and 1.4 m in depth (Fig. 1).

2.2.2 The stratigraphic sequence of each test pit was recorded and a representative number were digitally photographed. All recording was carried out using the methods detailed in the OAU Fieldwork Manual (1st Edition 1992). All spoil was examined for artefacts.

3 RESULTS

3.1 General

3.1.1 The stratigraphic sequences observed in the additional test pits showed little variation from those identified during the initial watching brief, therefore a detailed description of the stratigraphy is not provided here. In addition, to avoid repetition, the 91 test pits have been grouped based upon the depth below ground level of the natural gravel, and overall stratigraphic sequence; descriptions of these groups are given below. No archaeological features were identified; two worked flints were recovered and are discussed below.

3.1.2 The modelling of the thickness of the modern made ground and underlying disturbed subsoil illustrated in the main watching brief report has been augmented by the addition of the extra data recovered during this exercise and is presented here as Figure 2.

3.2 Test pit descriptions

Test pit group 1

3.2.1 Group 1 consists of all test pits cut through tarmac where natural gravel was identified at a depth less than 0.69 m below ground level (Test Pits 49, 53, 55 - 58, 73, 75, 77 - 79, 84 - 87 and 91). The tarmac (101) which was c 0.08 m in depth overlay a reddish-yellow sand, with flint inclusions, identified as a make up layer c 0.2 m in depth (102). In Test Pit 53 a cinder/coal based make up layer was used instead of sand. Test Pits 55-58 contained an additional concrete layer under the tarmac which was c 0.15 m in depth. Underlying the sand was grey-brown silty sand with frequent flint and occasional brick/debris inclusions (103). This deposit was identified as the disturbed subsoil observed during the watching brief carried out in 2010. Pleistocene gravels (104) were identified underlying the subsoil. Test Pit 87 was not excavated to natural gravel as a stone capped drain was uncovered and left in situ.

Test pit group 2

3.2.2 Group 2 consists of all test pits cut through topsoil where natural gravel was identified at a depth less than 0.69 m below ground level (Test Pits 6, 10, 15, 37, 40, 41, 43 - 46, 48, 60, 62 - 71, 76, 80, 82, 83 and 90). The topsoil (201) was c 0.2 m in depth, and consisted of a brown-grey silty sand with frequent flint and brick/debris inclusions. It overlay a grey-brown silty sand with frequent flint and occasional brick/debris inclusions c 0.4 m in depth (202), which is the disturbed subsoil identified across the site. The subsoil overlay the natural Pleistocene gravels (203). Test Pit 76 contained an additional grey sand layer 0.32 m in depth, which overlay the disturbed subsoil and is likely to have been caused by root activity or previous vegetation. Test Pits 63 - 65 were not excavated to natural gravel due to excessive root disturbance. In addition Test Pit 40 was stopped due to immoveable rubble. Test Pit 83 was located over the suspected location of a high voltage cable and therefore excavation was stopped prior to reaching the cable.

Test pit group 3

3.2.3 Group 3 consists of all test pits cut through tarmac where natural gravel was identified at a depth between 0.7 and 0.99 m below ground level (Test Pits 1, 27, 50 - 52, 54, 74, 81, 88 and 89). The tarmac (301) which was c 0.10 m in depth, overlay a reddish-yellow sand with flint inclusions interpreted as a make up layer, which was c 0.3 m in depth (302). Test Pit 54 contained a concrete layer overlying the make up layer which was 0.24 m in depth. This make up layer overlay the disturbed subsoil identified across site, a grey-brown silty sand with frequent flint and occasional brick/debris inclusion c 0.4 m in depth (303). The subsoil overlay

the natural Pleistocene gravels. Natural was not identified in Test Pit 1 and 74 as in both cases a greater thickness of made ground was present.

Test pit group 4

3.2.4 Group 4 consists of all test pits cut through topsoil where natural gravel was identified at a depth between 0.7 and 0.99 m below ground level (Test Pits 3 - 5, 7, 11 - 14, 16, 18 - 20, 22 - 25, 27, 28, 30, 32, 33 - 36, 38 - 40, 47, 59, 61, 72). The topsoil (401), c 0.25 m in depth, was a brown-grey silty sand with frequent flint and rare brick/debris inclusions. The topsoil overlay a grey-brown silty sand with frequent flint and occasional brick/debris inclusions c 0.7 m in depth (402), which is the disturbed subsoil identified across site. Underlying the subsoil were the natural Pleistocene gravels (403). Test Pits 3, 4, 5, 11, 13 were not dug to natural gravel, with the disturbed subsoil observed at the limit of the excavation.

Test pit group 5

3.2.5 Group 5 consists of all test pits cut through tarmac where natural gravel was not identified and lay at a depth greater than 1.3 m below ground level (only Test Pit 26 falls into this group). The tarmac (501), c 0.1 m in depth, was laid upon a grey-brown silty sand make up layer (502), which overlay an additional make up layer consisting of a brown silty-sand (503). Underlying this second make up layer was a dark reddish-grey silt-sand containing cinder and coal inclusions (504). This layer continued until the limit of excavations at 1.3 m below ground level; natural gravel was not observed.

Test pit group 6

3.2.6 Group 6 consists of all test pits cut through topsoil where natural lay at a depth greater than 1 m below ground level (Test Pits 2, 8, 9, 17, 21, 29 and 31). The stratigraphic sequence of Group 6 is the same as that identified in Groups 2 and 4. Topsoil (601), c 0.25 m in depth, overlay a disturbed subsoil (602) c 1 m in depth, which in turn overlay the natural Pleistocene gravels (603). Test Pits 2, 8 and 9 were excavated through banks constructed during the landscaping of the hospital grounds and were not excavated to natural gravel. The banks were constructed of redeposited subsoil, which was observed to the limit of excavation.

3.3 Finds

3.3.1 Two pieces of struck flint were recovered; a third, natural fragment was examined and discarded. Both were recovered from disturbed subsoil layers overlying the gravels. The two pieces consist of an irregular, multi platform flake core (Test Pit 16, context 402) weighing 150g and a regular, inner blade-like flake (Test Pit 21, context 602). The core is typical of later prehistoric assemblages, most likely mid-late Bronze Age in date, while the blade-like flake is more problematic as it could belong to any period from the upper Palaeolithic to the early Bronze Age. The piece displays clear platform faceting, a technique rarely used in the Mesolithic/early Neolithic but equally valid for the late Upper Palaeolithic and late Neolithic-early Bronze Ages.

3.4 Environmental remains

3.4.1 No environmental samples were taken.

4 Discussion and conclusions

4.1.1 The additional 91 test pits provided a wider scope of data covering a great percentage of site. Despite this little further information was gained. The stratigraphic sequence observed varied little from that discerned during the original watching brief.

4.1.2 As with the original investigations the test pits were not accessible and therefore the archaeological confidence rating should continue to be treated as moderate to poor.

4.1.3 The modern disturbance of the subsurface deposits has apparently affected the whole site, at varying depths throughout. The potential for undisturbed subsoil which may contain or seal archaeological features seems low – wherever the subsoil was observed there was evidence for modern disturbance, in the form of material such as brick. No archaeological features or garden soils where identified during excavation. The recovery of two worked flints suggests some potential for further artefact recovery – though on current evidence this is most likely to be from disturbed contexts.

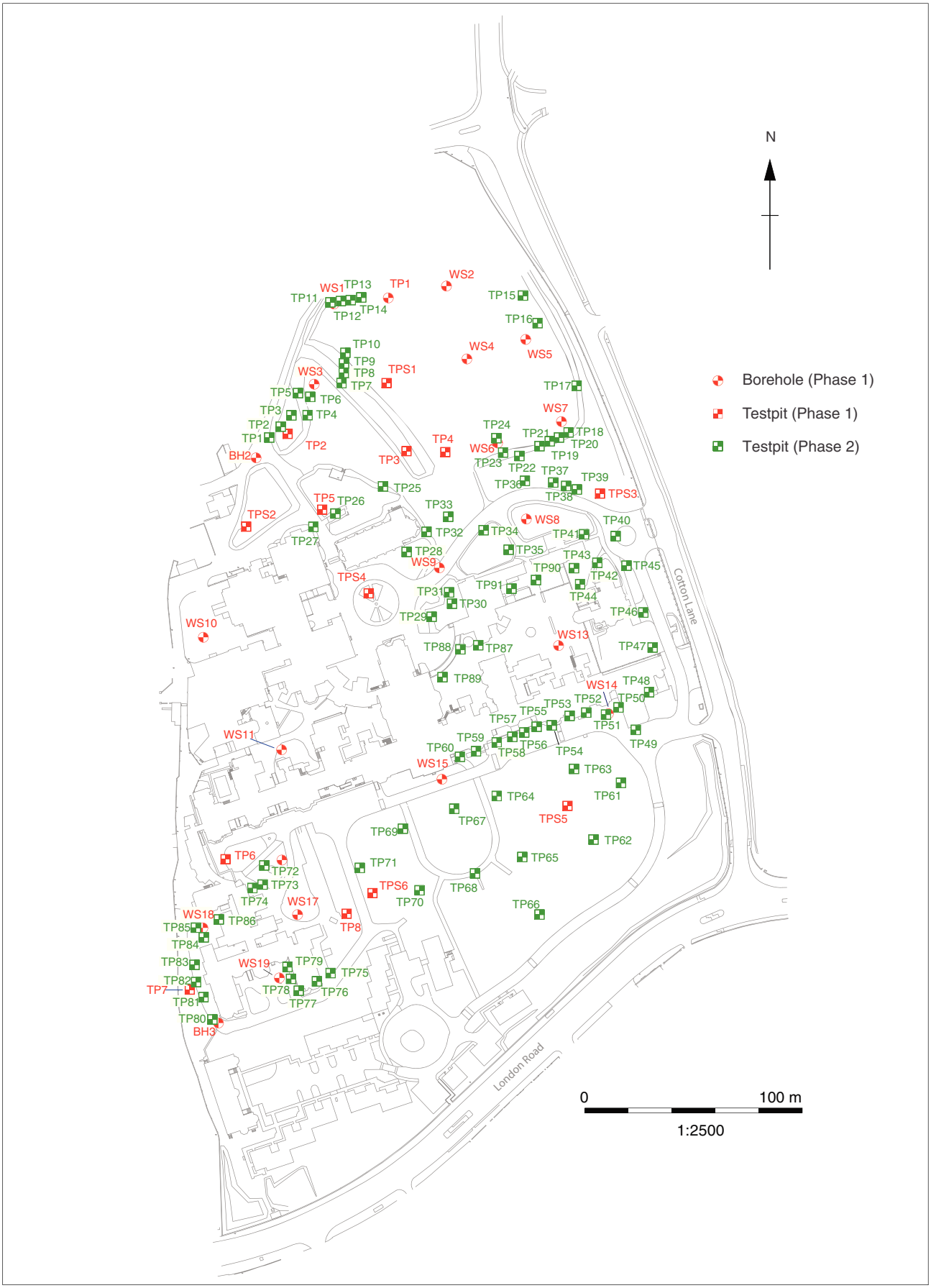

Figure 1: Plan of site and geotechnical investigations

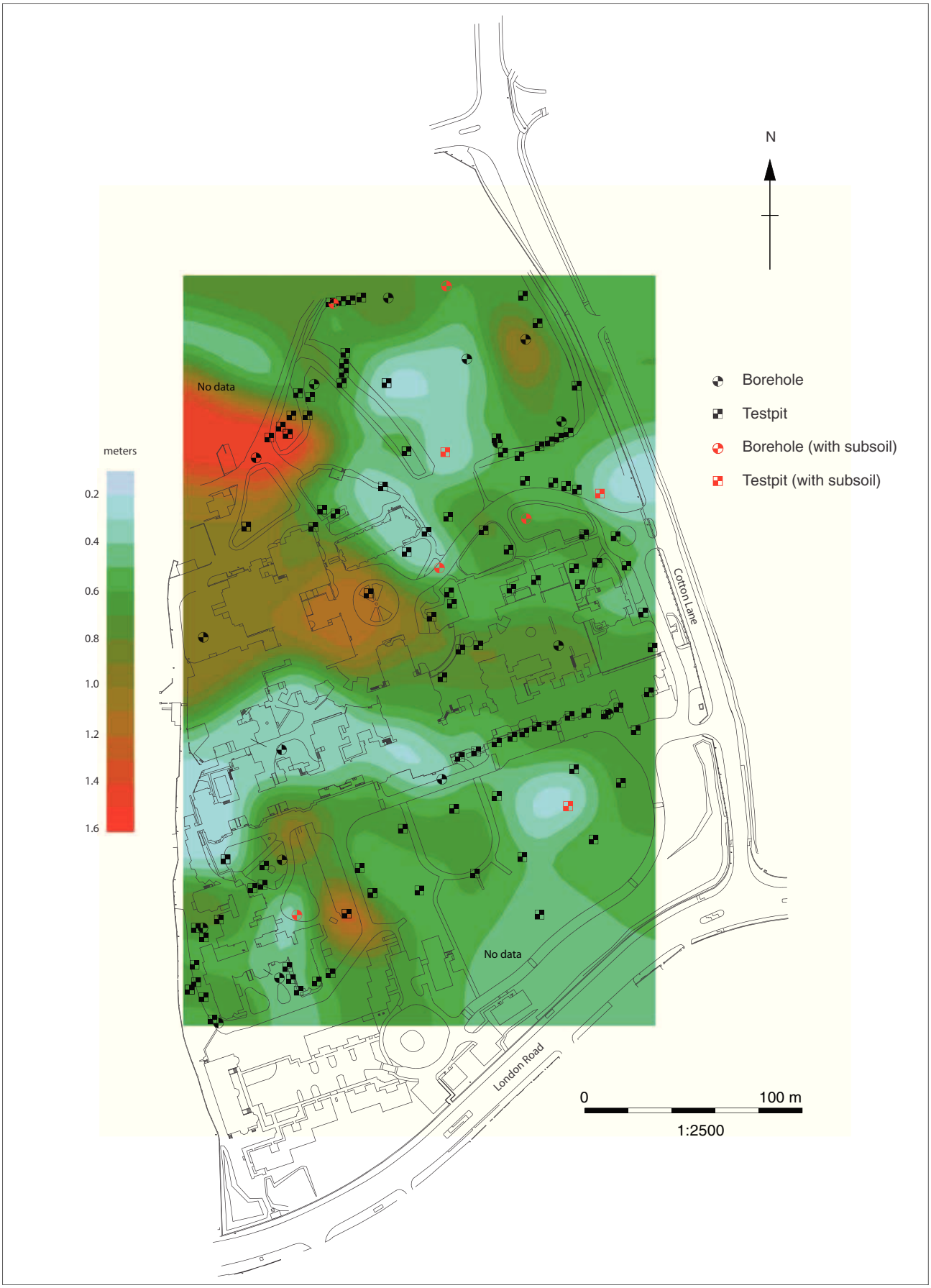

Figure 2: Modelled thickness of modern made ground