



The Archbishop's Palace Conservation Trust

A Safe pair of hands

Report of watching brief in front of door entrance to NW Tower of Otford Archbishops' Palace. French drain installation 20/03/2023 (v2)

1. Introduction

An archaeological Watching Brief was held by Dr CD Shee on 20 March 2023 on the occasion of the installation of a French drain immediately in front of and outside the main door entrance to the NW Tower of the Archbishops' Palace, Otford. Scheduled monument consent had been received and the Written Scheme of Investigation for the Scheduled Monument (S00243645) is attached to this document as an appendix.

Water had been pooling outside the entrance to the NW tower and to obviate the risk of water damage to the interior of the tower approval had been granted by HE. A French drain was to be installed in front of the door to the main Tower to intercept any remaining water (see Fig 3 and figures in Appendix). This would be laid just beneath the surface and would drain into the (now disused) rain-water pipe that runs from the inside of the Tower under the door threshold and discharges into the stream. The end of the pipe under the floor within the Tower would be capped off to prevent water running back into the Tower. The work would be carried out at the same time as minor re-profiling of the surface soil in front of the door.

2. Procedure

The installation of the French drain was carried out on 20 March 2023 in accord with the plan previously submitted and approved (see appendix).

In front of the door to the NW tower the woodchip and underlying membrane were peeled back to expose the soil beneath. The surface topsoil was removed by hand to a depth of 20cm so as to create a gentle fall away from the Tower towards the stream.

The existing rain-water pipe runs from inside the Tower, under the door threshold and discharges in to the stream. This existing pipe was probably installed in about 2017 when the Tower was being repaired by Sevenoaks District Council, and before the area was leased to the APCT (Archbishops' Palace Conservation trust). To access this rain-water pipe a trench was dug in front of the door. The trench was slightly curved in shape (see fig 3 for the "footprint"). The maximum length was 1 metre with an average width of 40cm. The depth was 40cm.

It was immediately obvious that this trench had been dug before. The solid surface just in front of the door threshold had previously been breached, as had a layer of mortar beneath it (Fig 1). There was no clear-cut stratigraphy as the ditch had been infilled about 6 years earlier. The previously laid drain-water pipe was uncovered at the base of the trench at 40 cm and had been cut in to a metallised surface, which was apparent on either side of the drain (Figs 1 & 2).



Figure 1: The trench photographed from the south, looking north toward the door threshold. The cement and mortar in the top layer to the south of the threshold had already been removed, presumably when the water-drain seen on the left (beneath centre of door) was originally inserted



Figure 2: View of the exposed pre-existing drain looking south from the door threshold. This picture shows more clearly that this drain has been cut in to a metallised surface and embedded in a bed of shingle. The smooth surface seen here is to the right (east) of the drain

It was apparent that the drain had been laid in a bed of shingle, and on either side had cut through a metallised sub-surface (fig 2). Rubble, CBM (ceramic building material) and stone could be seen in the stratigraphy. Having exposed the existing drain, no further digging and no invasive archaeological investigation was performed.

The pipe coming from the tower was capped off. A French drain was laid in the trench and the end

inserted in to the existing drain pipe so excess water would no longer accumulate in front of the door and would drain south to the stream. The soil and rubble removed from the trench was sorted manually and items of possible archaeological interest were removed before the trench was refilled with the residue. A thin layer of gravel was placed on top of the trench to facilitate drainage (Fig 3). A layer of bark chippings was subsequently laid on top of the gravel.



Figure 3: After the trench was refilled, a layer of gravel was placed on top to facilitate drainage

3. Analysis of finds

Finds were kept for later analysis and were subsequently cleaned and weighed.

3.1 CBM

The CBM samples were reviewed on 26/05/23 by Cynthia Poole, an expert on tile and brick. Some examples of the CBM found are shown in Figs 4 and 5.



Figure 4: Some examples of brick, mortar/chalk and stone found in the trench infill



Figure 5: Some examples of tile found in the trench infill (sample in top right is a piece of flint)

3.2 Brick

There were 14 pieces of brick weighing in total 2043g.

Poole described many of these bricks as having a coarse sandy fabric and appearance of being post medieval/Tudor from 16-17C. Some of these had faint peripheral indents, as is commonly seen in Tudor bricks. In addition, there were fragments of later orange modern bricks and some modern concrete.

3.3 Tile

78 tile fragments were identified, weighing a total of 2274g. There were a few crude medieval tile fragments, but the majority were thought by Poole to be post-medieval/Tudor 16-17C. Several were clearly peg tiles. One tile (144g, Fig 6) appeared to have a green glaze splash on the surface.



Figure 6: Tile with green glaze (Poole thinks this may be glaze “splash”, rather than a primary glazed tile)

Of interest were 2 tile fragments thought by Poole possibly to be of Roman origin (Fig 7). Scanty Roman CBM has previously been identified in excavations of the moated medieval manor to the south of and adjoining the Tudor courtyard. A large Roman villa is currently being excavated in nearby Church Field, and is the likely source of Roman CBM, possibly used as infill.



Fig 7 Possible Roman tile

3.4 Stone

8 medium sized stones were removed, with a total weight of 2127g. These were largely flint with no obvious worked stone. In addition, one lump of flint weighing 354g had formed a conglomerate with some mortar and ferrous material.

3.5 Metal

Five iron nails were found (total weigh 248g) with 1 modern and 4 of indeterminate age. In addition, there were 2 pieces of modern non-ferrous metal (77g)

3.6 Pottery

Only 2 pottery sherds were found, weighing 76g. One piece was modern glazed and the other of indeterminate origin.

3.7 Bone

Only 1 bone was found- mammalian weighing 18g,

3.8 Glass

12 sherds of glass, weighing in total 75g. Most of this was modern.

4. Conclusion

The area immediately in front of the NW tower door had been previously dug (probably in 2017) when a water-drain had been inserted running from the interior, beneath the door and to the exterior. This drain had been placed on a cut in a metalled sub-surface, and the trench had then been refilled with rubble. As would therefore be expected, below the top surface there was no clear-cut stratigraphy noted on this watching brief.

The trench fill contained a random mixture of soil, rubble, kilograms of stones, brick and tile, and only very small amounts (grams) of metal, glass, pottery and bone. Most of the brick and tile fragments were likely Tudor, with a few pieces of medieval tile. However, the fill also included some modern bricks, concrete and glass. Any future works or building in this area will need to bear in mind that there could be an extensive buried metal floor here.

Dr CD Shee June 2023

Appendix A Scheduled Monument Consent S00243645

Dear Mr Rushby

Ancient Monuments and Archaeological Areas Act 1979 (as amended); Section 2 control of works

Application for Scheduled Monument Consent

OTFORD PALACE

Scheduled Monument No: SM KE 9, HA 1005197

Our ref: S00243645

Application on behalf of The Archbishops Palace Conservation Trust

1. I am directed by the Secretary of State for Digital, Culture, Media & Sport to advise you of the decision regarding your application for Scheduled Monument Consent received 20 December 2022 in respect of proposed works at the above scheduled monument concerning groundworks to prevent flooding of the main tower as a result of heavy rains. The works will reprofile the ground outside of the stair tower to create a slope away from the tower entrance towards the stream and install a French drain in front of the door to the main tower to remove water via an existing rain-water pipe. The reprofiling will remove topsoil to a depth of around 20cm creating a gentle fall away and will be done by hand and under archaeological supervision. The works were detailed in the following documentation submitted by you:

Application Form

The Archbishop's Palace Conservation Trust. Otford Tower Statement of Archaeological significance

2. In accordance with paragraph 3(2) of Schedule 1 to the 1979 Act, the Secretary of State is obliged to afford you, and any other person to whom it appears to the Secretary of State expedient to afford it, an opportunity of appearing before and being heard by a person appointed for that purpose. This opportunity was offered to you by Historic England and you have declined it.

3. The Secretary of State is also required by the Act to consult with the Historic Buildings and Monuments Commission for England (Historic England) before deciding whether or not to grant Scheduled Monument Consent. Historic England considers the effect of the proposed works upon the monument to be beneficial works which will only have a minor impact upon the ground surface of the scheduled monument and so is unlikely to disturb any archaeological deposits. Nevertheless, an archaeological watching brief has been suggested for mitigation which should ensure that harm does not occur to any possible archaeological features or artefacts.

The works will also help the conservation of the monument as they are designed to alleviate harm which is occurring in Otford Tower from flooding after heavy rainfall.

I can confirm that the Secretary of State is agreeable for the works to proceed providing the conditions set out below are adhered to, and that accordingly Scheduled Monument Consent is hereby granted under section 2 of the 1979 Act for the works described in paragraph 1 above, subject to the following conditions:

- (a) The works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by Historic England. At least 2 weeks' notice (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to Liam Delaney (liam.delaney@historicengland.org.uk) in order that an Historic England representative can inspect and advise on the works and their effect in compliance with this consent.
- (b) The specification of work for which consent is granted shall be executed in full.
- (c) This consent may only be implemented by Nick Rushby (The Archbishop's Palace Conservation Trust).
- (d) No works shall take place until a WSI (for archaeological observation) has been submitted and approved in writing by Historic England. The works shall subsequently be undertaken in accordance with the approved scheme and in full, unless variations have been agreed in writing by Historic England.
- (e) All those involved in the implementation of the works granted by this consent must be informed by the applicant that the land is designated as a scheduled monument under the Ancient Monuments and Archaeological Areas Act 1979 (as amended); the extent of the scheduled monument as set out in both the scheduled monument description and map; and that the implications of this designation include the requirement to obtain Scheduled Monument Consent for any works to a scheduled monument from the Secretary of State prior to them being undertaken.
- (f) Equipment and/or machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument nor ground disturbance other than that which is expressly authorised in this consent.
- (g) A report on the archaeological recording shall be sent to the Kent Historic Environment Record and to Liam Delaney (liam.delaney@historicengland.org.uk) at Historic England within 3 months of the completion of the works (or such other period as may be mutually agreed).
- (h) The contractor shall complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations - <http://oasis.ac.uk/england/>) prior to project completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.

4. By virtue of section 4 of the 1979 Act, if no works to which this consent relates are executed or started within the period of five years beginning with the date on which this consent was granted (being the date of this letter), this consent shall cease to have effect at the end of that period (unless a shorter time period is set by a specific condition above).

5. This letter does not convey any approval or consent required under any enactment, bye law, order or regulation other than section 2 of the Ancient Monuments and Archaeological Areas Act 1979.

6. Your attention is drawn to the provisions of section 55 of the 1979 Act under which any person who is aggrieved by the decision given in this letter may challenge its validity by an application made to the High Court within six weeks from the date when the decision is given. The grounds upon which an application may be made to the Court are (1) that the decision is not within the powers of the Act (that is, the Secretary of State has exceeded the relevant powers) or (2) that any of the relevant requirements have not been complied with and the applicant's interests have been substantially prejudiced by the failure to comply. The "relevant requirements" are defined in section

55 of the 1979 Act: they are the requirements of that Act and the Tribunals and Inquiries Act 1971 and the requirements of any regulations or rules made under those Acts.

Yours sincerely

Liam Delaney

Assistant Inspector of Ancient Monuments

E-mail: liam.delaney@historicengland.org.uk

For and on behalf of the Secretary of State for Digital, Culture, Media and Sport

Appendix B Reprofilng and French drain: Written Scheme of Investigation

1. Introduction

The Scheduled Monument Consent for this work (S00243645) calls for a Written Scheme of Investigation although it recognises that the work will have only a minor impact upon the ground surface of the scheduled monument and so is unlikely to disturb any archaeological deposits. The indications from elsewhere on the site are that the ground level close to the buildings has risen by up to 40cm and so the removal of the planned 20cm should not reach any significant levels. Nevertheless, given that it is close to the North-West Tower and the former West Wing it is prudent to maintain an archaeological watching brief for mitigation which should ensure that harm does not occur to any possible archaeological features or artefacts.

This is therefore a scheme for the watching brief, rather than for a purposeful archaeological investigation. The Statement of Archaeological Significance for the site as a whole can be accessed at: <https://otfordpalace.org/wp-content/uploads/2023/02/APCT-Statement-of-archaeological-significance.pdf>.

2. Method statement

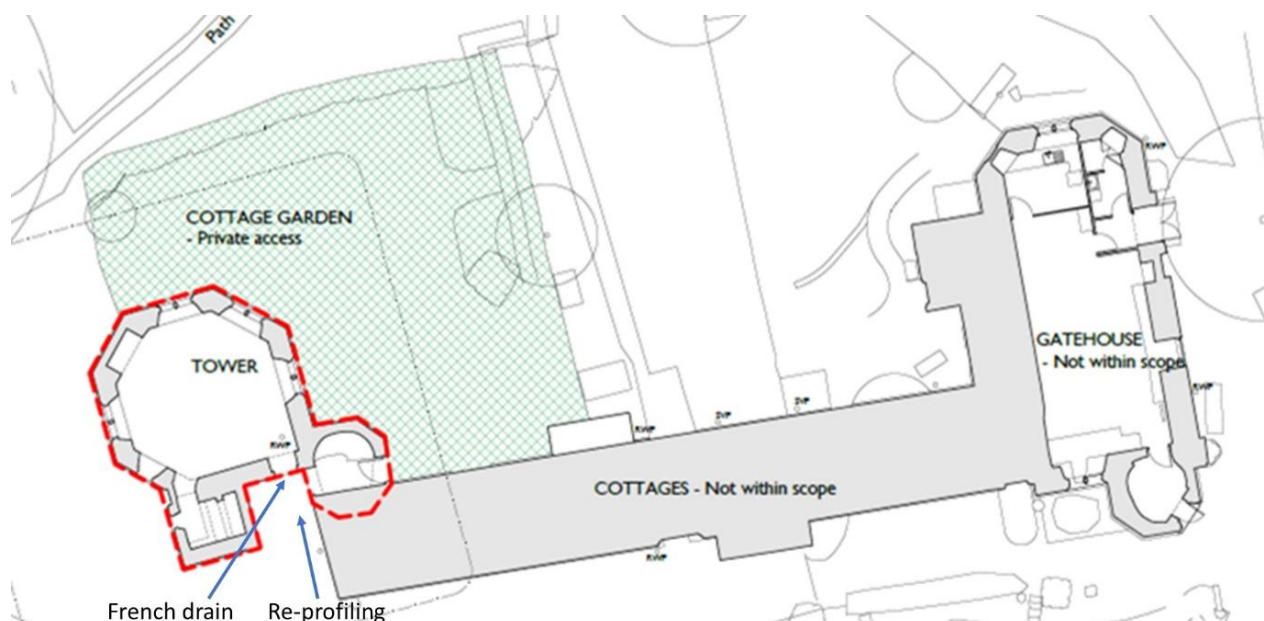


Figure 7: Site plan

Figure 2 shows that the ground to the right of the Stair Tower gate is about 15-20cm higher than the threshold of the Tower door.



Figure 8: Ground levels outside the Tower

The woodchip is laid on a membrane to stop mud being walked into the Tower. This can be peeled back to expose the soil beneath and then replaced. The surface topsoil will then be removed by hand to a depth of 20cm, so as to create a gentle fall away from the Tower towards the stream.

A French drain will be installed in front of the door to the main Tower (see figure 3) to intercept any remaining water. This will be laid just beneath the surface and will drain into the (now disused) rain-water pipe that runs from the inside of the Tower, under the door threshold and discharges into the stream. The end of the pipe under the floor within the Tower, will be capped off to prevent water running back into the Tower. The work will be carried out at the same time as the re-profiling.



Figure 9: Position of French drain

If archaeology is encountered that cannot be recorded swiftly, and where further work is required, including excavation, then the scope of this work will need to be agreed with the HER and Archaeology Officer before the reprofiling continues.

Any objects discovered will be revised by the Darent Valley Community Archaeologist and will be deposited in an appropriate archive.

3. Reporting

A report on the archaeological recording will be sent to the Kent Historic Environment Record and to Liam Delaney (liam.delaney@historicengland.org.uk) at Historic England within 3 months of the completion of the works.

The Trust will complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations - <http://oasis.ac.uk/england/>) prior to project completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.

A copy of the report will also be sent to Kent HER.

Nick Rushby
Secretary, Archbishop's Palace Conservation Trust
6th February 2023