Historic England

Scientific Dating

Old Manor House (Remains of)
Manor Road
Portslade-By-Sea
Brighton
East Sussex

Dendrochronological Investigation of an *ex situ* Oak Lintel

Martin Bridge

Discovery, Innovation and Science in the Historic Environment

Research Report Series no. 268/2020

Front Cover: Old Manor House, Portslade-By-Sea, East Sussex. Photograph: Martin Bridge

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SUMMARY
A single oak lintel above a doorway in the remains of this site was subject to a programme of repair and had been removed as a result of its degree of decay. Close inspection revealed that it had no clear sapwood, and only around 30 annual rings, but a sample was taken in case of future interest in pursuing dating techniques other than dendrochronology.

CONTRIBUTORS
Martin Bridge

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ARCHIVE LOCATION
The Historic England Archive
The Engine House
Fire Fly Avenue
Swindon SN2 2EH

HISTORIC ENVIRONMENT RECORD
East Sussex Historic Environment Record
The Keep,
Woollards Way
Brighton
East Sussex BN1 9BP

DATE OF INVESTIGATION
2020

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INTRODUCTION

This Scheduled Monument (List Entry Number: 1002272 here) comprises the remains of a number of walls of a former Norman manor house located next to the Church of St Nicholas in the middle of the town (Fig 1). Originally of two storeys, its construction is of mostly flint rubble with Caen stone quoins. It was largely demolished during the Victorian era, but the east and south walls survive in a ruined state, along with a later extension, which bears a carved date of AD 1611.

The remains of a single timber lintel above a doorway in the ruins (Fig 2) had been removed during a programme of repair, and decisions on whether the timber was to be reinstated or replaced were under consideration at the time of sampling, which required dating input.

METHODOLOGY

An assessment of the *ex situ* timber for dendrochronological study (Fig 3) sought more than 50 rings and where possible traces of sapwood, although slightly shorter sequences are sometimes sampled if little other material is available. If the timber had been deemed suitable discussion would take place about acceptable sampling methods. In this case, however, the decayed state of the timber meant that it could not be reinstated. There was discussion about the possibility of future display instead, for which a date would be edifying, and so it was agreed that to remove a slice from the widest section of the *ex situ* timber for further analysis was acceptable.

The slice was polished on a belt sander using 80 to 400 grit abrasive paper to allow the ring boundaries to be clearly distinguished. The ring widths were measured from the photograph (Fig 4) using CooRecorder 9.6 (www.cybis.se) and are given in the Appendix.

RESULTS AND DISCUSSION

The *ex situ* timber was oak (*Quercus* spp), but had very few rings with no sapwood and was very decayed. It was also evident from various mortices within the timber (see Fig 3) that it had probably been reused from a different position The slice removed was sanded, and revealed approximately 30 rings (Fig 4), making it unsuitable for conventional ring-width dendrochronology or for oxygen isotope analysis, which also requires a higher ring-count for meaningful correlations. The remains of the timber were returned to Portslade, pending further decisions.

The likely reuse of this timber in the role of a doorway lintel suggests that the timber may have come from a different building altogether and that any dating may not therefore throw much light on the development of the site, since there is no way of knowing its origin, or how long had elapsed between its initial use, and incorporation into the Old Manor.

FIGURES

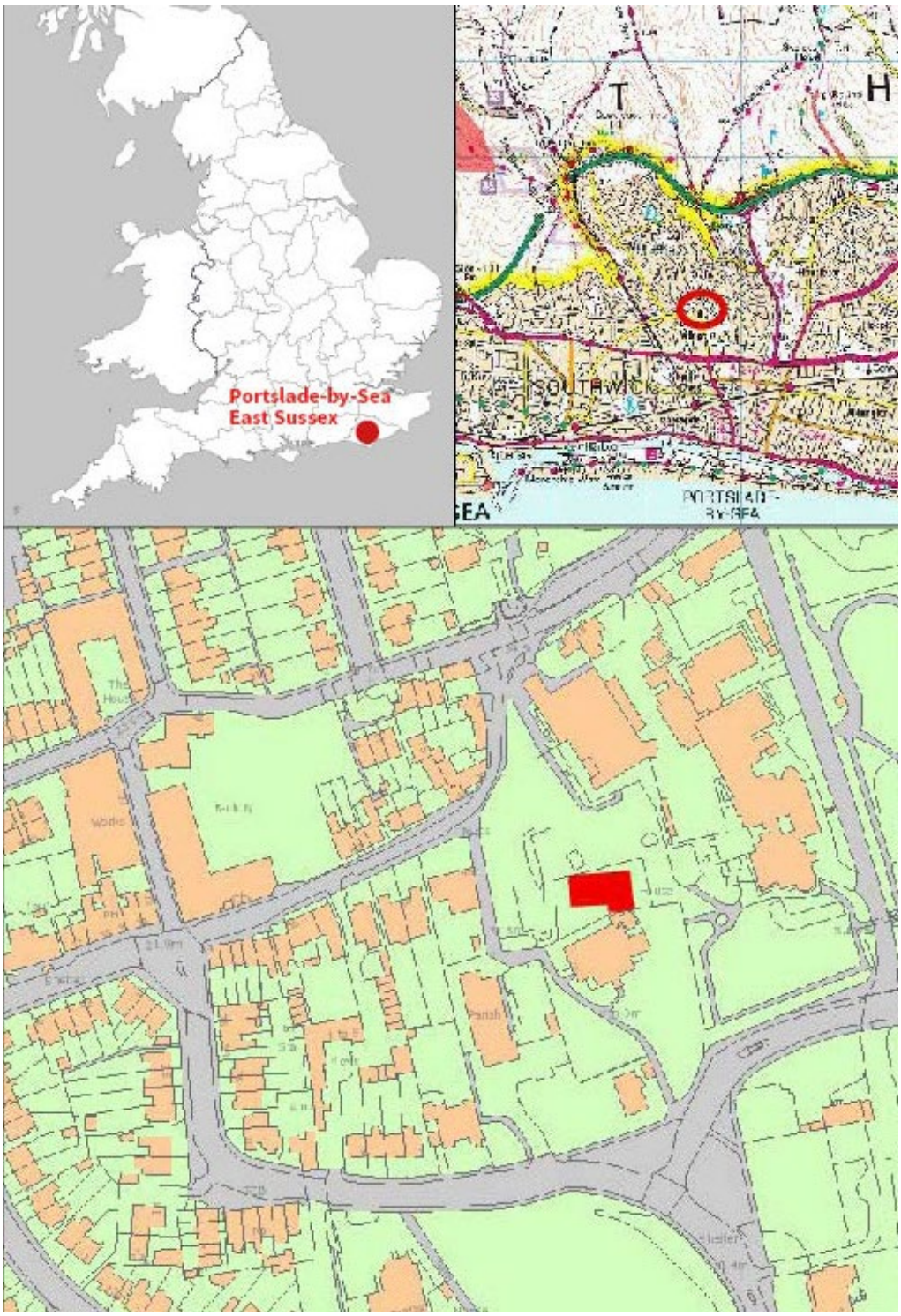

Figure 1: Maps to show the location of the remains of the Manor House in Portslade-by-Sea in East Sussex, marked in red. Scale: top right 1:52,913, bottom 1:1,654 © Crown Copyright and database right 2022. All rights reserved. Ordnance Survey Licence number 100024900

Figure 2: Photograph of the lintel in position over a doorway (photograph Maria Buczak)

Figure 3: Ex situ *lintel showing mortice from a former role (photograph Martin Bridge)*

Figure 4: Slice removed from the ex situ *lintel for possible future analysis (photograph Martin Bridge)*

APPENDIX

Ring width values (0.01mm) for the sequence measured (from photograph)

Portslade

332	325	303	442	369	288	329	292	161	272
280	297	283	292	354	390	321	236	418	316
341	458	253	274	301	311	350	370	300	210

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