

## *Discovery and Excavation in Scotland*

Updated on 15/06/2007

<b>LOCAL AUTHORITY:</b>	Fife
<b>PROJECT TITLE/SITE NAME:</b>	Dunfermline Abbey
<b>PROJECT CODE:</b>	HSCO-90116-2012-01
<b>PARISH:</b>	Dunfermline
<b>NAME OF CONTRIBUTOR:</b>	David Murray
<b>NAME OF ORGANISATION:</b>	Kirkdale Archaeology
<b>TYPE(S) OF PROJECT:</b>	Watching brief
<b>NMRS NO(S):</b>	NT08NE 1
<b>SITE/MONUMENT TYPE(S):</b>	Abbey
<b>SIGNIFICANT FINDS:</b>	Human bone
<b>NGR (2 letters, 8 or 10 figures)</b>	NT 0897 8731
<b>START DATE (this season)</b>	23 July 2012
<b>END DATE (this season)</b>	30 July 2012
<b>PREVIOUS WORK (incl. <i>DES</i> ref.)</b>	
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	A watching brief was carried out during the lifting of slumped floor slabs within Dunfermline Abbey Church. Two trenches were excavated to discover the cause of subsidence. One trench revealed a layer of sand over concrete. The other showed limited amounts of fine sand immediately below the paving, suggesting the lifting and replacement of some slabs. Below this, fine silt had a prominent area of collapse within it. This seems likely to reflect a burial below, as it is orientated E/W and is a suitable length (1.95m) for a grave, if perhaps somewhat wide (1.35m). The bone noted within this area is likely to be human, but perhaps belongs to earlier burials disturbed by the collapsing one.
<b>PROPOSED FUTURE WORK:</b>	
<b>CAPTION(S) FOR ILLUSTRS:</b>	
<b>SPONSOR OR FUNDING BODY:</b>	Historic Scotland
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<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited in NMRS

HISTORIC SCOTLAND PROPERTIES IN CARE  
MINOR ARCHAEOLOGICAL WORKS 2012

Dunfermline Abbey Church • Watching Brief • July 2012

HS PIC Index Number: 90116

**SITE:** Dunfermline Abbey Church, Dunfermline

**N.G.R.:** NT 0897 8731

**DESCRIPTION:** Watching Brief during the lifting of floor slabs, to investigate the cause of slumping in the floor

**PROJECT CODE:** HSCO-90116-2012-01

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SEPTEMBER 2012

## INTRODUCTION

Under the terms of its PIC Call-Off contract with Historic Scotland, Kirkdale Archaeology was asked to monitor the lifting of slumped floor slabs within Dunfermline Abbey Church, Dunfermline (Fig.1).

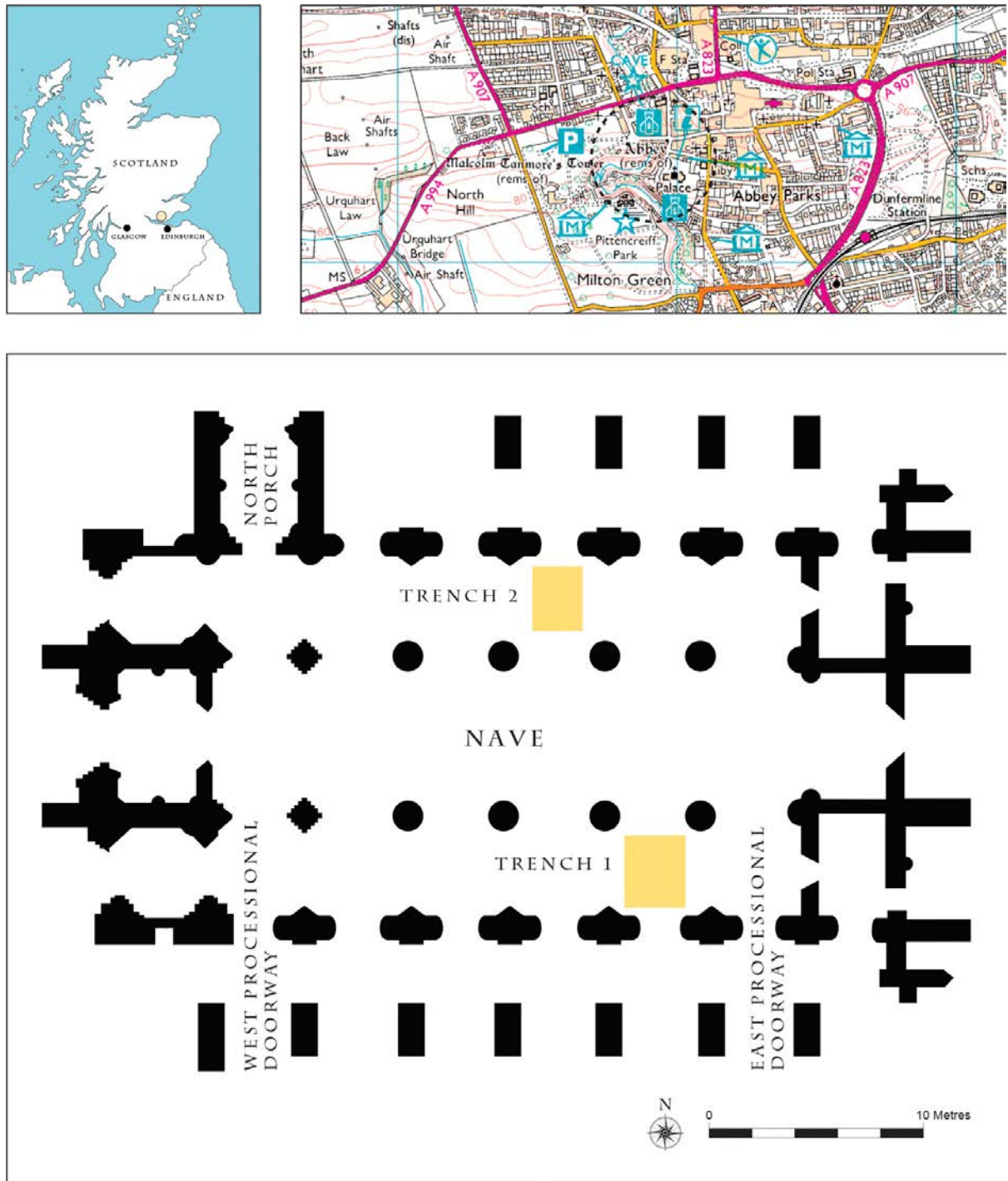


Figure 1: Plan showing the location of Dunfermline Abbey, and the areas of work. Inset No. 2 © Crown copyright. All rights reserved 2012. Licence number 100036933.

The church has a complex history, with much of the Nave thought to date to the twelfth century, constructed by David I. His mother Margaret formed a community here in the late eleventh century, and excavations below the floor of the Nave in 1916 found evidence for an earlier structure. These remains occupied the centre of the E end of the Nave, with its N and S walls running under the line of the pillars that support the structure today. The excavated structure was thought to be two phase, with an earlier rectangular one extended to the E by an apsidal addition.

The floor of the church today is formed of stone slabs, with evidently more than one phase represented. Older looking worn slabs tend to characterize the N and S aisles, with more recent looking slabs in the central area. Presumably much of this flooring was lifted or replaced during the 1916 excavations.

In 1977 concern that the slabs were slumping lead to an excavation in the S aisle near its E end. This found evidence for dense burials, some of which at least were of nineteenth century date, as well as some tantalizing structural evidence. The natural clay was located at a depth of 1.2 m (Robertson *et. al.* 1981).

Two areas had such uneven flooring that, by 2012, it was considered necessary to lift the floor slabs to investigate the cause of the problem. Three separate visits were made to the site between the 23<sup>rd</sup> and 30<sup>th</sup> July 2012, with the required work carried out by Historic Scotland staff under archaeological supervision.

## DESCRIPTION

Trench 1 was in the same location as the 1977 excavation, in the S aisle between the second and third pillars from the E. The floor slabs **100** were lifted across an area approximately 2.85 m E/W by 3.4 m N/S. This exposed coarse sand **101** across the area, with a black plastic lighting cable, **104**, running E/W across this at the N end of the area.

A *sondage* approximately 0.6m wide N/S was cleared through **101**, showing it to be 0.07m deep. This bottomed out on concrete **102** that extended across the area without interruption. A further small area

was opened up in the NE corner against the base of a pillar **103**, showing that **102** extended at least this far.

Trench 2 was in the N aisle between the third and fourth pillar from the E. The stone slabs **200** were often large (*e.g.* 1.75m by 0.9m) but thin (typically 0.07m), and were lifted across a maximum area of 3m N/S by 2.35m E/W. A fragment of a 1957 newspaper was found below them. Fine sand **201** was recorded below **200**, along the S and E sides of the trench; this proved to be only 0.02m thick. Under this, and running around the area, context **201** did not extend into was mid grey fine silt **202**. This was not excavated, but was full of mortar and charcoal inclusions.

A substantial area of collapse **203** was noted towards the N end of the Trench 2, approximately 1m S of the N wall of the church. This had occurred across an area roughly 1.95 m E/W by 1.35m N/S, to a depth of approximately 0.4m. Context **203** had noticeably rounded E and W ends, and had collapsed to a lesser degree towards its centre. At least two fragments of bone were visible within the vicinity of **203**. No further work was carried out.

## **C O N C L U S I O N S**

Preliminary work at two locations within Dunfermline Abbey to investigate the subsidence of the floor produced very different results. Trench 1 in the S Aisle showed an extensive concrete underlay exists across the affected area. This must post-date the 1977 excavations, at the end of which the excavators note ‘... the site leveled up with hard-core, in preparation for the replacement of the floor slabs’ (Robertson et al 1981, p399). As this concrete appeared level, the subsidence here is presumably restricted to the sand overlying it. This should be fairly easy to remedy by increasing the amount of leveling material used.

Trench 2 within the N aisle showed limited amounts of fine sand immediately below the paving, suggesting the lifting and replacement of some slabs. Below this, fine silt **202** had a prominent area of collapse within it (numbered **203**). This seems likely to reflect a burial below, as it is orientated E/W and is a suitable length (1.95m) for a grave, if perhaps somewhat wide (1.35m). The bone noted within this area is likely to be human, but perhaps belongs to earlier burials disturbed by the collapsing one.

This voided area lies 1m S of the N wall of the church, which has a memorial inserted against it at this point. This is in three parts, all commemorating members of the Dury family, from the 16<sup>th</sup> century to 1957. The central part of the memorial is a well preserved late medieval slab commemorating 'Henricus Durie', and the stained glass window above this bears the Durie coat of arms. Although not specifically stated, presumably the members of this family are interred in front of this memorial. This means it is likely to be a Durie whose grave is collapsing, possibly the latest, that of Robert Nugent Dewar Durie.

Further areas within the Abbey church show evidence for subsidence, and it is likely that burials are the cause of all of these. The 1977 excavations produced evidence for perhaps six burials, with one dated via a brass plate inscribed 1847. As these were not excavated further, examples are likely to remain below, and the soils excavated were noted to be full of disarticulated human bone. Further memorials line the walls showing post-Reformation use of the area as a burial ground, and medieval internments might well be expected.

The ultimate course of action in order to prevent the continued slumping of the floor would be to excavate the floor deposits and stabilize the grave cuts, though it would likely be difficult to excavate small areas, due to the probability of intercutting burials, and the desirability of excavating complete skeletons. Excavation on a larger scale may turn out to be a more appropriate solution.

## LIST OF CONTEXTS

### Trench 1

Context	Description
100	Paving Slabs
101	Coarse sand below <b>100</b>
102	Concrete below <b>101</b>
103	Masonry pillar in NE corner of trench
104	E/W electric cable at N end of trench, above <b>101</b>

### Trench 2

Context	Description
200	Paving slabs
201	Thin layer of fine sand below E and S sides of <b>200</b>
202	Mid grey fine silt below <b>201</b>
203	Void at N end of area

## LIST OF DIGITAL PHOTOGRAPHS

Number	Description	From	Date
1	Slabs lifted in Trench 1	N	23/07/2012
2	Trench 1, Sondage showing concrete <b>102</b>	E	23/07/2012
3	Trench 1, Sondage showing concrete <b>102</b>	S	23/07/2012
4	Trench 1, Sondage showing concrete <b>102</b>	S	23/07/2012
5	Trench 2, pre-excavation	E	23/07/2012
6	Trench 2, pre-excavation	E	23/07/2012
7	Trench 2, slabs <b>200</b> being lifted	S	23/07/2012
8	Trench 2, slabs <b>200</b> being lifted	E	23/07/2012
9	Trench 2, slabs <b>200</b> being lifted	S	23/07/2012
10	Trench 2, slabs <b>200</b> being lifted	S	23/07/2012
11	Trench 2, slabs <b>200</b> being lifted	W	23/07/2012
12	Trench 2, view under E end of void <b>203</b>	S	23/07/2012
13	Trench 2, E end of void <b>203</b>	S	23/07/2012
14	Trench 2, view under W end of void <b>203</b>	S	23/07/2012
15	Top of memorial	S	23/07/2012
16	Center (late Medieval) memorial	S	23/07/2012
17	Brass plaque at base of memorial	S	23/07/2012
18	View of void <b>203</b> at E end of Trench 2	S	23/07/2012
19	Trench 2, general shot	S	23/07/2012
20	Stained glass window above Trench 2	S	23/07/2012
21	Detail of central roundel of stained glass window above Trench 2	S	23/07/2012