

READING BOROUGH COUNCIL

REPORT BY HEAD OF LEGAL & DEMOCRATIC SERVICES

TO:	POLICY COMMITTEE		
DATE:	11 APRIL 2016	AGENDA ITEM:	8
TITLE:	HIDDEN ABBEY PROJECT		
LEAD COUNCILLOR:	COUNCILLOR PAGE	PORTFOLIO:	STRATEGIC ENVIRONMENT, PLANNING & TRANSPORT
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1. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

- 1.1 The Hidden Abbey Project ('the Project') has been set up to discover the extent and nature of the below-ground evidence of the Royal Abbey founded in Reading by King Henry I in 1121 and where he and other members of his family were buried. The Project is contemporary with, but not part of, the Borough Council's successful *Reading Abbey Revealed (RAR)* Heritage Lottery Scheme (and the results of the Hidden Abbey Project will inform the interpretation planned by the RAR project); and proposals currently being developed by the Ministry of Justice to dispose of Reading Gaol which was founded on part of the historic Abbey Quarter. It also anticipates the 900<sup>th</sup> anniversary of the Abbey's foundation, in 2021.
- 1.2 Reading Borough Council is coordinating the project, in tandem with the RC Diocese of Portsmouth and the Ministry of Justice, as the principal public landowners in the Abbey Quarter site, together with the Friends of Reading Abbey, Darlow Smithson Productions (DSP), and Philippa Langley of Little Marilyn Productions Ltd (LMPL). It is being taken forward by a Steering Group on which all of the above bodies are represented. Reading Borough Council will be the commissioning body for works associated with the project, and will procure, enter into, client and pay the contracts for such works, although it will not itself provide any funding directly.
- 1.3 The brief for the project is set out in **Attachment A** ('the Project Proposal'). This sets out the aim of the Project as being to use ground-penetrating radar (GPR) to locate the boundaries and extent of Reading Abbey in its current modern setting and to survey the site with a view to interpret better the Abbey Ruins and locating possible sites of archaeological interest for future investigation, with a particular interest in locating the burial site of Henry I and other burials within the Abbey complex. The Abbey Ruins have not been the subject of a comprehensive and recorded archaeological exercise for over 150 years.
- 1.4 The GPR analysis commissioned by the Project will be filmed by DSP for the purposes of producing a television documentary for Channel 4 Television, who will be providing much of the funding. Philippa Langley of LMPL and DSP will have exclusive filming access to the works. This will be subject to separate legal agreements between DSP (with LMPL) and the landowners.

- 1.5 A plan and image showing the site covered by the Project is at **Attachments B and C**. The focus of the first phase of the Project will be on the Abbey church. The land on which this was located is now owned by three landowners and their interests are as follows:

Owner	Site	Reference to Plan
Reading Borough Council (RBC)	Forbury Gardens Abbey Ruins	Site C Site D
RC Diocese of Portsmouth (DoP)	St James Church St James Presbytery Forbury Nursery	Sites A and J2
Ministry of Justice (MoJ)	Reading Gaol site	Site B1 and B2

## 2. RECOMMENDED ACTION

- 2.1 That the Council's involvement in the Hidden Abbey Project as lead partner, and the project structure and objectives set out in para. 4, be agreed.

## 3. POLICY CONTEXT

- 3.1 As mentioned above, the Project can be seen as complementing, and running in parallel with, the Reading Abbey Revealed Project which in 2015 was the subject of a successful Heritage Lottery Fund bid. This was reported to this Committee on 18 January 2016 (Minute 64 refers). The Reading Abbey Revealed Project is about the conservation of the Reading Abbey Ruins and Gateway, with an extensive interpretation and public activity programme across the Abbey Quarter. This aims to reveal the hidden history of the Abbey and the prominent role that Reading has played across 1000 years of history; the Hidden Abbey Project is about the discovery and interpretation of the remains of the Abbey hidden below ground.

## 4. THE PROPOSAL

### 4.1 Current Position:

- 4.1.1 The Committee will be aware of the national and international publicity generated in recent years by the discovery of Richard III's body in Leicester, and its subsequent re-burial in Leicester Cathedral. A driving force behind this project was Philippa Langley, of the Richard III Society. Early in 2015, Ms Langley made contact with the Council and the Roman Catholic Diocese of Portsmouth to undertake a similar project in Reading, to promote archaeological surveys of Reading Abbey, the burial place of King Henry I and Queen Adeliza. The land previously occupied by the Abbey Church is now owned by the Council (Forbury Garden and Abbey Ruins), the Diocese of Portsmouth (St James's church, presbytery and The Forbury Nursery School); and the Ministry of Justice (Reading Gaol).
- 4.1.2 A small project team was formed to discuss this proposal in January 2015. The Mayor Councillor Hacker, held a promotional meeting in the Mayor's Parlour, on 29 July 2015 which was attended by the Lord Lieutenant, together with the above-mentioned partners and representatives from Berkshire Archaeology, the University of Reading Archaeology Department, the Ministry of Justice (for Reading gaol), local businesses and other partner interests. The meeting was also attended and addressed by Ms Langley, and Emily Dalton from Darlow Smithson Productions (DSP). This meeting gave general support to the Hidden Abbey project, and acknowledged the significant

economic benefits that Leicester City had gained from the discovery of Richard III. It recognised that the project would have a cost of around £30,000, primarily to support the archaeology of the whole of the Abbey site. In all of the project discussions the Council has made clear its support for the project, both as community leader and landowner, but without the ability, in the current budget situation, to make a financial contribution.

- 4.1.3 Following this meeting, a more formal project structure and Steering Group has been set up. The Steering Group held its first meeting on 21 September 2015, and has met five times since then. The Steering Group is comprised of representatives of the following organisations:

Landowners

Reading Borough Council	The Mayor and Councillor Page John Painter
Diocese of Portsmouth	Sean Hayes (Diocese Surveyor) Father John O'Shea (St James church) John and Lindsay Mullaney (local historians)
Ministry of Justice	Rebecca Skinner (JLL)

Partners

Friends of Reading Abbey	Peter Durrant (Chairman)
Friends of Reading Museum	Richard Stainthorp, Linda Fothergill
Darlow Smithson Productions	Aidan Hansell, Emily Dalton
Little Marilyn Productions Ltd	Philippa Langley MBE

Advisors

Matthew Williams	Reading Museum / Reading Abbey Revealed
Fiona MacDonald	Berkshire Archaeology
Reading University Archaeology	

- 4.1.4 The Steering Group has been chaired by Richard Stainthorp. I act as Project Officer. Linda Fothergill supports the Steering Group.
- 4.1.5 The Steering Group has agreed and signed off the Project Proposal, attached at Appendix A.
- 4.1.6 The Steering Group, with advice from Berkshire Archaeology, Heritage England, and the University of Reading Archaeology Department, has developed and agreed a detailed specification for the GPR analysis of key parts of the Abbey site. In the interests both of speed and keeping costs under control, the Project will be split into two phases. The specification will be to undertake GPR works to phase 1, which includes the following sites, listed by landowner:
- The Forbury Gardens (Sites C1, 2 and 3 - 5,395 sq.m) - RBC  
Set out as public gardens, a mix of grass and flower beds and shrubberies with some hard standing (paths), and a monument and ornamental pond.
  - The St James Church precinct (Site A - 2,283 sq.m) - RC Diocese of Portsmouth  
Three C19th buildings surrounded by hard standing (parking / playground) and rear gardens.
  - The Reading Gaol site (Site B1 - 949 sq.m) - Ministry of Justice  
Predominantly hard standing (car parking).
- 4.1.7 The Steering Group has applied to Heritage England for a licence, under Section 42 of the Ancient Monuments and Archaeological Areas Act 1979, to commission the GPR surveys on land which in all cases is a Scheduled Ancient Monument.

4.1.8 The Steering Group, advised by the University of Reading Archaeology Department, has drawn up a shortlist of 6 professional organisations and companies, and invitations to tender to undertake the GPR surveys against the specification were sent out in March 2016. The Steering Group will make the decision as to whom to award the GPR tender this month.

4.1.9 The Council, as lead partner, will be the commissioning body for the GPR works, and will procure, enter into, client and pay for the contract for the GPR works. The Steering Group understands that the Council will not be paying for the GPR works out of its own funds, and that if funding is not forthcoming, the Council will not be able to enter into the contract on behalf of the Steering Group. In this connection, Darlow Smithson Productions have advised the Steering Group that funding may be forthcoming from sources with which they are in contact; the extent of this will determine the scope of the Project.

## **4.2 Other Options Considered**

4.2.1 If no or inadequate funding is not forthcoming, the Project will not proceed.

## **5. CONTRIBUTION TO STRATEGIC AIMS**

5.1 The Hidden Abbey Project has the potential to contribute directly to the following corporate priorities:

2. Providing the best life through education, early help and healthy living
5. Providing infrastructure to support the economy;

5.2 The Project may also contribute to:

- Reading's Cultural & Heritage Strategy 2015-2030;
- Heritage Statement, February 2014.

5.3 In this connection, analysis done by Leicester City Council on the Richard III effect has shown that this brought almost £60M into Leicester's economy, with 600,000 additional visitors coming to the city a result of the telling of its historic story, and 1,000 full time equivalent jobs created in the city.

## **6. COMMUNITY ENGAGEMENT AND INFORMATION**

6.1 Section 138 of the Local Government and Public Involvement in Health Act 2007 places a duty on local authorities to involve local representatives when carrying out "any of its functions" by providing information, consulting or "involving in another way".

6.2 The Hidden Abbey project is being taken forward in partnership with local interests, as indicated above. It will also be engaging with the Reading Community Interest Company (CIC) and local businesses, including those based in the Abbey Quarter, as they will be the principal beneficiaries of any economic benefits that might accrue from the national profile to be given to the project, and in particular the discovery of Henry I's burial place.

## **7. EQUALITY IMPACT ASSESSMENT**

7.1 Under the Equality Act 2010, Section 149, a public authority must, in the exercise of its functions, have due regard to the need to—

- eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

7.2 In this regard you **must** consider whether the decision will or could have a differential impact on: racial groups; gender; people with disabilities; people of a particular sexual orientation; people due to their age; people due to their religious belief.

7.3 It is not considered that an Equality Impact Assessment is necessary for this project.

## 8. LEGAL IMPLICATIONS

8.1 The Council's involvement in the Hidden Abbey project, and its project support, will be under Section 1 of the Localism Act 2011 (the power of general competence).

8.2 The works to undertake the GPR analysis will be tendered and the contract awarded by the Council, on behalf of the Project, in line with the Council's Contract Procedure Rules.

8.3 Separate agreements will be entered into by the three landowners to permit the successful contractor to go onto their land to undertake the GPR surveys; and also with DSP to allow them to film the GPR works on their land.

## 9. FINANCIAL IMPLICATIONS

9.1 The Council will not be committing any new funds to this project. The Council's support will be "in kind", using existing staffing and resources as set out in para. 4 above. The project will not go ahead if external funding is not forthcoming.

## 10. BACKGROUND PAPERS

Project Proposal (attached at Appendix A)  
Specification for GPR Tender

# THE HIDDEN ABBEY PROJECT

## GPR SURVEY OF THE ABBEY QUARTER

The whole Abbey quarter is potentially one of the richest areas in Reading as a source for discovering not just the history of the town but also its relevance to the historical development of the Thames Valley. There is plentiful evidence of continual human settlement from the Stone Age, Belgic Iron-Age and the Romano-British era through to, and including, the Saxon period. This was followed by the Norman occupation and the founding of the Abbey in 1121.

A GPR survey would, in all probability, reveal more about the true extent and nature of the Abbey. Furthermore, because of the rich history of the area, a survey should enhance our understanding of the different periods of human settlement in Reading, and so add to our knowledge of the history of the Thames Valley. It would, therefore, contribute to our appreciation of the role Reading played in the wider national context.

It should be noted that evidence of Saxon habitation was uncovered during the 1970s excavations. This is potentially of considerable archaeological and historical importance as it would indicate a significant Saxon presence in the east of Reading. There is a body of opinion that places the main Saxon settlement to the west of the town, around St Mary's Minster. However, several late 20<sup>th</sup> century excavations produced a considerable amount of archaeological evidence for Saxon habitation to the east, in the area which today we call the Abbey Quarter, but very little to the west.

The first of these excavations was carried out by Professor Cecil Slade in the 1970s.<sup>1</sup> He was excavating the footings of the east end of the chancel, in an area just to the east of the wall that divides the Prison car park from St James' school. In the course of this he uncovered what he describes as *pre-Abbey footings* under the 1121 Abbey footings. Slade notes that these were most probably *ecclesiastical in purpose*. He also noted that their alignment was at an angle to those of the 1121 Abbey. Owing to time restrictions, imposed by the Prison authorities, he could not continue his excavations. Nevertheless he took a photograph which is in his report, and reproduced below.

In the 1980s Wessex Archaeology undertook excavations along the waterfronts of the ancient town.<sup>2</sup> An analysis of their data shows remarkably little evidence of Saxon material during these excavations. Moreover what was found came mainly from the Abbey Wharf area. This may be because the evidence has been lost over the course of time but the fact that most was found in the Abbey area indicates a significant Saxon presence in east Reading.

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1. Berkshire Archaeological Journal Vol 68 (See Supplementary photo at end )
  2. *Excavations on Reading Waterfront Sites, 1979-1988*. Wessex Archaeology 1997 Report no 5.

From 1996 to 1998 Oxford Archaeology excavated the area in the west of Reading near St Mary's Minster, in the site known as the Oracle, in preparation for a new shopping centre.<sup>1</sup> Once again very little evidence of Saxon archaeology was discovered.

Chart of Saxon fabric (pottery) finds in Reading from the three excavations			
Abbey East End	Waterfront	Oracle	TOTAL
22	26	8	56
	All these were in the Abbey Wharf area	(including 2 shelly-ware from the 8th to 11th centuries)	

The above chart is a summary of Saxon fabric (pottery) found in all the above excavations. It will be seen that the great majority are in the 'Abbey' area. The existence of a pre-1121 ecclesiastical building would be of major archaeological importance. It would necessitate a revaluation of the presumed beginnings of Reading. It would also go some way to addressing the mystery of the church which the Abbey foundation charter refers to as having been destroyed *on account of their sins*.

The first historic written reference to Reading is in the *Anglo-Saxon Chronicle* for the year 871 which records the arrival of the Danish-Viking army and its encounter with the Saxon inhabitants of Berkshire. It would appear that the area to be surveyed played a prominent role at this time and the mystery about the location of the Danish-Viking camp may be solved. (See area F below).

Although the Hidden Abbey Project is primarily aimed at discovering the extent and nature of Henry I's Abbey, it can be seen that a GPR survey with appropriate follow-up excavations should have a far wider-reaching relevance for the history of the town.

The following is a list of the areas where finds are not just possible but, if made, would fulfil archaeological and historical objectives which would be of local, and national, importance.

#### A. The Chancel and North Transept.

This area was relatively untouched, after the Dissolution, until the building of St James' church, 1837-40 and subsequently of the school after the 1870s.

It is here that Henry I and other dignitaries were buried. These include Adeliza, second wife of Henry I, and William, eldest son of Henry II.

It is also the location where the Reading Abbey Stone was discovered. This had been carefully buried in front of the High Altar at an unknown date. In 1840 it was converted into the baptismal font now standing in St. James' church. This is the only carved stone of its size to have been discovered in the Ruins. The stone presents several archaeological problem.<sup>2</sup>

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1. *Under the Oracle*, Ford et al. Oxford Archaeology 2013

2. *The Reading Abbey Stone*, Mullaney, John. 2016 and *Letter to the Editor of the Reading Mercury*, published 9<sup>th</sup> February, 1835. Wheble, James

There has been much discussion about its original purpose and even whether it was part of the 1121 Abbey. The survey may reveal more such artefacts and solutions to these unanswered questions.

Within this area there is also the body of the choir. To the north, in one of the school playgrounds and in the presbytery garden, there are some standing remains and the footings of the more southerly of the apsidal chapels of the north transept. Under and around the presbytery it may be possible to discover a second northerly chapel and possibly the projecting apsidal chapels attached to this which were a feature of Cluniac monastic design. The transept may also cover the tombs of other dignitaries.

The area adjoins that of Reading Gaol where the 1970 excavations, referred to above, were made. These uncovered the footings of the east end of the original chancel of the 1121 Abbey but also revealed possible pre-Abbey footings. Professor Slade made what he called a *tentative guess* that these were of *late Saxon date and ecclesiastical in purpose*. This area lies on the edge of the boundary between the school and prison and if such footings exist they would extend under both properties.

If there were such a building then this would be an extremely important find which would add considerably to our knowledge of Saxon or Saxon-Norman Reading. Once again this would be of national as well as of local importance.

## B. Reading Gaol.

This area is very large and covers much of the unknown part of the Abbey. It is subdivided into 3 sections.

### B1 The East End of the Chancel and the West End of the Lady Chapel

This area, as mentioned in A, was excavated in the 1970s. The aim would be to map, where possible, the location of the eastern structures of the abbey church, specifically the Choir, apse, High Altar and Lady Chapel (dating from 1314), and to ascertain whether southern projecting chapels of the apse existed, as is most likely, matching the two found to the north in the 1970s and marked F1 and F3 on the BAJ report plan. (See end of this document.)

However the 1970s excavation was very limited in time and area. The Lady Chapel footings were not revealed.

There are some unsolved problems concerning the alignment of the Abbey and the Lady Chapel which a GPS may help solve. We have drawings of the footings for the Chapel's north wall, (given by Englefield, 1779, and by Englefield/Coates 1802), together with evidence from an 18<sup>th</sup> century illustration of a wall that may be that of the Lady Chapel. However they are not in line with the pillar bases for the nave and do not match the foundations, as marked on Englefield plan, for the supposed south wall of the Chapel.



This area is under the north-west prison car-park and is relatively open for survey. The aim here would be to ascertain the true extent and nature of the eastern section of the Abbey church, along with its apsidal chapels, a feature of Cluniac architecture, and the precise location and dimensions of the Lady Chapel. A survey may also reveal other buildings.

### B2 The Lady Chapel.

This part of the Lady Chapel probably extends under the skirting wall of the prison. Access problems, in addition to the fact that it has been extensively built upon, may make this area difficult if not impossible to survey. However it would be desirable to solve the problem of the true location of the Lady Chapel as outlined above.

The aim of a survey in this area would be to confirm the eastern part of the east-west boundaries of the Abbey church and thereby establish its exact position, size and structure. At this juncture, some of the north-south boundaries seem to be known owing to existing structures above ground. Various estimates have been given as to the Abbey's overall size and it has been suggested that the church building was nearly as large as the medieval St Paul's Cathedral, London.

Some commentators have postulated that it was of a basilica-type construction. However, the usual form of a Cluniac Abbey was to have a main central nave with side aisles. The Greek style *bema*, or short transept, had by the 12<sup>th</sup> century developed into a full transept to which the Cluniac monks added the apsidal chapels. It would appear that, from its beginning, it was this style that was employed at Reading, but further archaeology might be able to determine whether the transepts with apsidal chapels were part of the original design.

It is also possible that, in addition to the known transept, an additional, more northerly, transept may have been added as part of later expansion. There is no evidence above ground that such ever existed nor do any of the ruins in 18<sup>th</sup> century illustrations appear to show its existence. There is one anomaly which may or may not be connected with this problem and that is the misalignment of the north wall that is presumed to be of the Lady Chapel. Englefield's plan marks this clearly but it is not in the correct position in relation to the known nave. There is one illustration that shows a wall in this position but there is insufficient evidence within this picture to establish its exact nature, use or location. The illustration appears in Stuart Harrison's *Archaeological Survey Report* for RBC, 2015.

### B3. The Prison area to Chestnut Walk.

This area has been extensively built over since the 1780s when the first Reading Gaol was built on this site. There are open areas where a preliminary survey would reveal if there is chance of any meaningful discoveries. Historically this would be a very useful area to survey, as we know nothing about the medieval, or possibly even pre-medieval, buildings and activity in this part of the Abbey grounds.

There has been debate about whether a castle or fort dating to the 17<sup>th</sup> century Civil War was in fact ever built to watch over the easterly approaches along the Kennet.

The circular remains which border the Kennet may be part of this structure and a survey may give us more valuable information.

### C. Abbey Church Nave

#### C1/H2 The 'Great Ditch'.

To confirm the extent of the 'Great Ditch' constructed through the nave and cloister area of the Abbey church during the period of the English Civil War.

#### C2. The West End of the Abbey.

The true extent, westwards, of the Abbey has never been ascertained. A survey of the western end may also help to reveal firstly whether there were towers and secondly, if so, whether they were added at a later date.

### D. South Transept, Chapter House, Dormitory, Cloisters.

This large area is relatively open and has not suffered from too much building work over the centuries. Some structures were erected after the Dissolution and certainly in the 19<sup>th</sup> century. For example a National School was built in the Chapter House at the beginning of the 19<sup>th</sup> century. There are 18<sup>th</sup> century illustrations showing houses constructed against various walls of these Abbey ruins.

A GPR survey might reveal several other features, such as whether there are burials in the chapter house, the possible existence and location of the great cellar mentioned in the 1650 Parliamentary Survey, evidence of Civil War activity, including the castles that may or may not have been built to defend the easterly approaches along the Kennet, the locations of the reredorter, kitchens and other outhouses.

Part of this area would include the confluence of the Holybrook and Kennet which was surveyed in the 1980s during the MEPC development of the area. (*cf Excavations of Reading Waterfronts* Hawkes and Fasham)

To further confirm the position and layout of World War II Air Raid shelters constructed in the dormitory area to the south of the Abbey church.

### H3 and E1 The Cloisters and Refectory

Following on from area C the Cloisters and the Refectory were an important part of the monastery. The 1879 OS map shows a covered well in the present day cloister area. It would be interesting to discover more about this. The Cloisters stretched into land now occupied by the houses and gardens of Abbots Walk. However, much of it is open and easily accessible. Part of the Refectory south wall still remains. In the 19<sup>th</sup> century cottages were built along the south face of this. A survey might be able to answer the question as to whether there was a cellar here and discover the existence or extent of ancillary buildings. It has also been recently suggested (Wessex Archaeology) that the reredorter was further to the west than originally thought and so would fall within this sector.

*Note. On the accompanying map (supplement 2) this area overlaps with area H2.*

F. The possible site of the Danish 871 -2 (Viking) encampment and defences.

These may lie to the far west of the Forbury Gardens. Evidence of some form of earthwork survived well into the 19<sup>th</sup> century.

G. The Forbury Hill.

Its origins are unknown, with hypotheses ranging from the Iron Age right up to its possible construction during the 17<sup>th</sup> century Civil War.

H1/2/3. Civil War 17<sup>th</sup> Century.

H1. The town's defences were built somewhere in this area. The maps do not make this clear. It was said that a 'great ditch and ramparts' were constructed, destroying the Abbey nave and cloisters. Current thinking is that the Dormitory wall (H3) was part of these defences. The area is a continuation of the Great Ditch and Rampart. It is thought that some of the holes in the dormitory wall were made at this time as gun ports.

*Note. On the accompanying map area H3 overlaps with area D.*

J1 and 2. North Abbey area.

The churchyard of St Laurence's church lay to the north of the Abbey and was only moved to its present location, to the east of the church, in the time of Queen Mary Tudor. Some of this lies under St James' church as well as in the Forbury. A GPR survey may reveal unknown aspects of this area including evidence of a Saxon cemetery which was reported in the 1960s at the time of the building of the north aisle of St James' church.

K. Abbots House (Modern)

This area has been considerably developed with modern buildings and roads. I suggest we leave it to the GPR experts to decide if it is likely to provide any information and so whether it is worth the time and money of a survey.

## FUNDING

If the GPR investigation is required to be contracted out, funding for Phase One of this work is in place with C4. Further funding avenues for the remaining phases of the GPR work is also underway locally with BID, and a proposal for the construction of a RBC HAP website.

## INFORMATION FOR GPR SPECIALISTS REGARDING THE GEOLOGY OF THE AREA

The Hidden Abbey Project offers a unique, and significant, research opportunity. The site of Reading Abbey sits on an area of alluvium over gravel over chalk.

The bedrock of the Reading area is Seaford Formation and Newhaven Chalk Formation (undifferentiated). This is a sedimentary bedrock formed approximately from 100 to 65 million years ago in the Upper Cretaceous Period. The rocks were formed in warm shallow

‘chalk shelf’ seas. The superficial geology lies over the bedrock. These top layers were formed from rivers depositing mainly sand and gravel detrital material in channels to form river terrace deposits. Together with fine silt and clay from flooding, these create floodplain alluvium. This occurred up to 2 million years ago during the Quaternary Period.

The site covers an area of approximately 13 acres (51,700 m<sup>2</sup>). It is hoped that this might offer Historic England (HE) an important research project in terms of a 3-D Radar survey similar to that undertaken so successfully at the *Stonehenge Hidden Landscapes Project* in 2011. It is understood that HE has since invested in a new and improved Norwegian company 3-D Radar machine which will equally offer considerably enhanced results than the conventional single channel GPR systems.

#### ATTACHED MAP AND AERIAL PLAN

The map and plan are marked with the zones A to J. Some of these by necessity overlap. H1, H2 and H3 trace the area of the possible Great Ditch and Ramparts of the 17<sup>th</sup> c. Civil War. This overlaps with areas C and E and apart from H1 would be covered by the GPR in those areas. Likewise J1 overlaps with H1.

(There is no area with the letter I as this could be confused with the number 1 on the map.)

#### GPR PHASES AND SUGGESTED PREFERENCES

Our order of preference for GPR would be as follows:

PHASE 1: Areas A, B1, C1, C2, C3.

PHASE 2: Areas B2, B3, D, E.

PHASE 3: Areas F, G, H1, (H2 and H3 would have been included in Phase 2)

PHASE 4: Area J. Some of this will have been covered in area H1.

PHASE 5: Area K

This preference list is not rigid. It is partly a matter of practicality, and funding. With the imminent development work by the MoJ, we obviously need to get the prison site surveyed asap, and this happens to coincide with the first phase of the Hidden Abbey Project and its investigation into the Abbey Church building (areas A, B1, C1-3).

#### CONCLUSION

This paper proposes the first comprehensive<sup>2</sup> study of Reading Abbey and its Quarter, offering a unique research opportunity for this site of national, and potentially international, importance. Its aim is to answer specific research questions using the non-invasive

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<sup>2</sup> Taking into account previous professional archaeological investigations of sections of the Abbey, the term ‘comprehensive’ is used to cover the whole (comprehensive) area by as full as possible Ground Penetrating Radar (GPR) survey. This would include the Forbury Gardens and other areas not previously investigated. It would also include the areas belonging to St James’ Church and to its east covering the location of the north-west prison car park.

technique of Ground Penetrating Radar (GPR), followed, where permissions are forthcoming, by clearly defined and targeted key-hole and trial trench investigation to interpret the results of the survey.

Since the late eighteenth century, modern development work has offered tantalising windows into the structure of the abbey church and claustral buildings, its architecture, religious life and associated burials, but archaeological investigation has been sporadic. As a result, many questions about the Abbey and its Quarter remain unanswered.

Reading Abbey offers a unique study into Norman-Romanesque architecture and building techniques. Examination of the existing Abbey Quarter and historic records suggests that, unlike other significant religious foundations from this period, Reading remained largely untouched by later additional medieval building work. The only recorded extension of the Abbey church is the construction of the Lady Chapel at its far eastern boundary in the early fourteenth century (1314). Further research may, however, prove this incorrect and this is an important part of the project.

A GPR survey would facilitate the mapping of the layout and structure of an almost untouched early 12<sup>th</sup> century Cluniac abbey church, and its claustral buildings. The survey may reveal significant foundations and footings; possibly also including pre-Norman architectural remains.

With this new analysis it may be possible to create an authentic virtual representation of Reading Abbey Church and monastery. The proposed documentary, to be produced by award-winning Darlow Smithson Productions, would offer a platform to present the Abbey in 3D graphics and historical walk-through for the first time.

The Hidden Abbey Project offers a unique opportunity that may finally help answer many questions that have long intrigued historians, archaeologists and researchers alike. It is also possible that it may change much of what we know about Reading.

By placing Reading's historical story centre-stage it will allow this vibrant commercial hub to bring its story to life and offer it a new future as a historic town. The Hidden Abbey Project has the potential to raise awareness on a national (and international) platform, and to help enhance the profile of a key, but often over-looked, Thames Valley town.

Supplements:

1. Photo of pre Abbey footings from BAJ 68



PLATE 13: Reading Abbey: Chancel, pre-Abbey footings under Abbey footings.

### Slade's Excavation Plans

1121 Abbey footings total depth 8' (2.43m).  
 8" (.2m) below these are pre-1121 footings, 1' 4" (.4m) wide and 6" (.15m) thick, made of flint in hard white mortar. This contrasts with the yellow mortar of the 1121 Abbey.  
*Imperial measurements as given by Slade in the original text.*

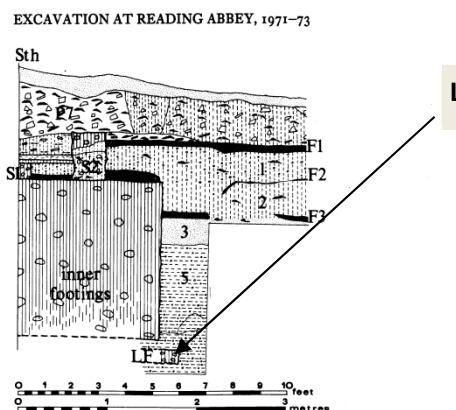
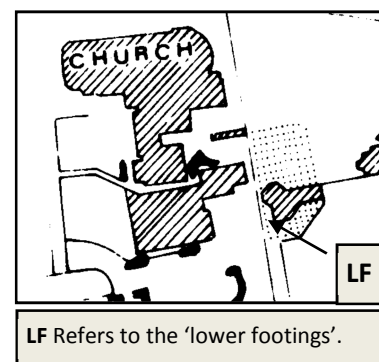


Fig. 6. Abbey Church: Section across Chancel, detail of south end. For key to layers and features see Fig. 5.

LF

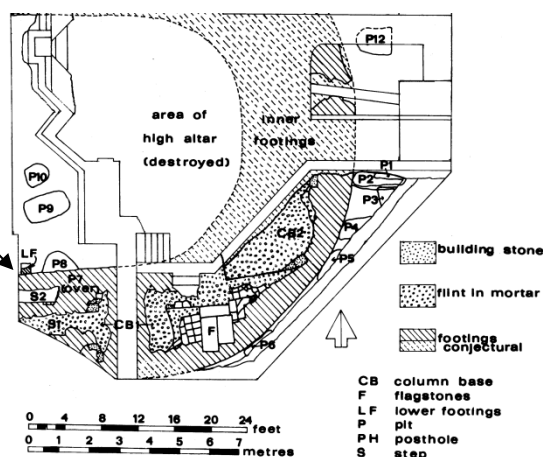


Fig. 3. Abbey Church: Plan of Chancel and Ambulatories. Outlines of later buildings are indicated by fine lines.