



The Gardener's Cottages
Mathern Palace
Mathern
Monmouthshire
(NGR ST 52340 90832)

Building recording and watching brief



November 2007

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Cover picture: *The Gardeners' Cottage under scaffolding and viewed from the west during the renovation work.*

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Contents

1. Summary
 2. Introduction
 3. Aims and Objectives
 4. Methodology
 5. Historical Background
 6. Historic Building Recording
 7. Results of the watching brief
 8. Discussion
 9. Bibliography
- Appendix 1, site archive
Appendix 2, Photographic registers and photo locations
Appendix 3, Pottery and ceramics report
Appendix 4, The finds
Figures and Plates
-

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Building recording and watching brief

1. Summary.

The project arose in response to a commission from Gerald Eve to carry out archaeological works in association with emergency remediation works in advance of restoration of this Grade II Listed Building within a Registered Park and Garden.

The archaeological works took the form of building recording prior to intrusive works, which demonstrated how the building had been re-configured since its original use as a barn. A construction break on the buildings north elevation related to a gatehouse that formerly stood between the cottages. The building survey was followed by an archaeological watching brief during groundworks.

The findings of the watching brief included a stone wall or walls aligned north-south, with 13th-15th century pottery in a layer overlying it. Also located were floor layers that related to at least two earlier phases of the present building's past.

The site archive will be deposited at Chepstow Museum.

2. Introduction.

The project came in response to a commission from Gerald Eve, Chartered Surveyors and Property Consultants to carry out archaeological works in association with emergency remediation works. This was a requirement of Monmouthshire County Council Planning Section, acting on the advice of their archaeological advisors, the Curatorial Division of Glamorgan-Gwent Archaeological Trust Ltd (GGAT).

The site (Fig.1) comprised a single building, divided into two and named “The Gardener’s Cottages, Mathern Palace”. It lay in the southern part of the modern settlement of Mathern, in the medieval core of the settlement, divided from the more modern village (also known as Newton Green) by an elevated section of the M48. It is on the border of two zones of underlying geology where Triassic mudstones meet outliers of Tournaisian and Viséan formations of the Carboniferous Limestone Series. It was centred at NGR ST 52340 90832.

At the time that the project commenced, planning permission had not been granted for works, but a meeting was held on site on 9th March 2007 to discuss the need for urgent remedial works to address the movement of the south-facing wall and consequent damage to the roof of the building. A representative of the Planning Section of Monmouthshire County Council agreed the urgency of the situation and informed representatives of Gerald Eve of the need to involve archaeological contractors in the recording of the existing fabric and observations of further works.

A planning application for restoration of The Gardener’s Cottages had been submitted to Monmouthshire County Council (Pl. App. No. DC/2006/00551) and in August 2006 they had sought the opinion of the Curatorial Division of the Glamorgan-Gwent Archaeological Trust (GGAT), providers of archaeological advice to the local planning authority. GGAT recommended that conditions be placed upon planning permission in order to ensure that the fabric should be fully recorded prior to the development commencing. The first recommended condition read:

No site works shall be undertaken until the implementation of an appropriate programme of building recording and analysis has been agreed with the local planning authority, to be carried out by a specialist acceptable to the local planning authority and in accordance with an agreed written brief and specification.

Reason: *As the building is of historic significance, the specialist records are required in mitigation of the loss of heritage.*

A second recommended condition is based upon a model from Welsh Office Circular 60/96, Section 23 and is designed to ensure that the impact of the works upon the archaeological resource can be minimised through appropriate archaeological works. It read:

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the local planning authority.

Reason: *To identify and record any features of archaeological interest discovered during the works, in order to mitigate the impact of the works on the archaeological resource.*

No brief for the required works was issued, but Archaeological Investigations Ltd (AIL) were commissioned by Gerald Eve to carry out works designed to meet the terms of the suggested conditions and allow progress on the remediation works. After discussion with Ian Heald of Gerald Eve and Jim Parry, Development Control Officer with the Curatorial Division of GGAT, an archaeological proposal was drafted and approved (AIL 2007).

The historic building recording took place on 22nd March 2007 and further visits to the site were made between 2nd April and 2nd October 2007 to monitor ground-works.

3. Aims and Objectives.

The project was considered likely to produce results that would be of local archaeological importance.

The main aim of the project was to enable archaeological features (both below and above ground) to be identified and recorded in the areas affected by the proposal.

The main objectives of the work were to:

- a. Identify the date and nature of features being investigated
- b. Assess survival, quality, condition and relative significance of any archaeological features, deposits and structures, both below and above-ground within the study area
- c. Produce a record of those features
- d. Deposit an ordered archive in a recognised depository.

4. Methodology.

As originally envisaged the scheme involved the urgent underpinning of the southern gable and adjoining sections of the eastern and western walls. This required excavation of the existing concrete floor in 1m wide strips from the internal face of the walls. However, in the event, it was first decided that the concrete floor be removed over the whole width of the southern portion of the building, and later revised so that the concrete was removed throughout the whole building.

The scope of the work encompassed rapid background documentary research, historic building recording of the whole structure before any other works could begin, a watching brief and (possibly) further evaluative or excavation work.

Rapid documentary research into the history of the building was undertaken through the following sources

- Sites and monuments record held by Glamorgan-Gwent Archaeological Trust
- Gwent Record Office, Cwmbran
- Royal Commission on the Ancient and Historical Monuments of Wales
- Cartographic evidence
- Geology and soils maps
- Secondary sources.

Building Recording involved the annotation and collation of existing survey drawings (plans and elevations) made at 1:50 by Gerald Eve. Particular emphasis was placed on blocked openings and areas where modifications had taken place. A full record had been made by Gerald Eve of the roof structure, including sections at each truss. The plan was for these to be annotated, but it was apparent that, apart from two tie-beams, none of the roof structure predated the 1890s. The Gerald Eve survey was checked and the only annotation involved a record of the location of two struts not identified in that survey. A photographic record consisting of high quality digital and colour film images, together with black and white prints was made. This included both general shots and details of individual features/fixtures (examples appear within this report).

Regular visits were made by a qualified archaeologist during the stages of removal of the concrete and the opportunity was available to clean, record and investigate any archaeological deposits exposed, particularly in locations where excavation for underpinning works was intended. A qualified archaeologist was present on site during the excavations associated with the underpinning in order to investigate and record any archaeological deposits exposed. Deeper cuts for (e.g.) new services and French drains were also monitored.

5. Historical Background.

A church at *Merthir Teudric* is mentioned in the Llandaff charters (Ref: LL141) c. AD 620 and this is taken to be a precursor of St Tewderic's church at Mathern, to the north-east of the Site. Legend has it that Tewderic, King of Glamorgan died at a nearby well and ordered that a church be built on the spot.

Mathern Palace, one of the former residences of the Bishop of Llandaff, stands to the south of the churchyard. The oldest surviving standing fabric is thought to be 15th century in date and built by Bishop de la Zouche. The remains of the medieval palace comprise a stone two and three storey house (partly ruinous) with a tower attached to the north. In the early 16th century a chapel, refectory and kitchens are thought to have been added by Bishop Miles Salley. Bishop Godwin carried out further works in the late 16th and early 17th centuries, which may have included a rebuilding of the kitchens. However, these only presaged a long period of decline and the last bishop to reside in the building was William Beaw (d. 1705). It continued to be maintained until the episcopate of Shute Barrington (1769-82) when the palace was partially dismantled and let to a farmer with the demesne land. It belonged to the see until the death of Bishop Ollivant (1883) when it passed to the ecclesiastical commissioners by act of parliament. In 1889 it was sold to George Carwardine Francis, who sold in on to Henry

Avray Tipping in 1894 (Bradney 1933, 63-4). By this time it had sunk to “the sordid untidiness of a hopelessly ill-contrived and unrepaired farmstead” (Avray Tipping, quoted in Cadw/ICOMOS 1994) and Tipping instituted a campaign of renovation and rebuilding, both of the main house and surrounding buildings, and also laid out the gardens. Much of this process is outlined in Sales Particulars of 1914 (Gwent Record Office D 25.1407). Annotation to this document shows that bidding reached 7350 guineas (or pounds) before it was withdrawn, but in 1923 it was sold to Colonel Donald James Campbell Macnabb (Bradney, 64).

The earliest cartographic depiction found of Gardeners’ Cottages dates to the 1840s and is probably the Tithes Map (Gwent Record Office D1111.10). It shows an L-shaped building with the short arm running roughly east/west (Fig.2). On the First Edition Ordnance Survey of 1886 (Fig.3) the building is shown as T-shaped, the south-eastern projection being a lean-to butting the east wall, but by the Second Edition of 1905 the building has attained its current shape (a rectangle with a lean-to against the northern end of the east wall). Both the 1905 and 1921 editions of the Ordnance Survey were consulted in Gwent Record Office (GRO), Cwmbran but neither has been reproduced.

Avray Tipping and his architect Eric Francis were responsible for the conversion of the former barn into a two-storey house in the 1890s. The Cadw listing description for “Gardeners Cottage” is as follows

“A small 17th-century barn converted into a two storey house in the 1890s by H Avray Tipping and his architect Eric Francis. The oak mullioned windows are a characteristic feature of their work.

A barn built of roughly coursed local rubble with a pantile roof. The entrance (courtyard) elevation is in four bays of two storeys. From the left, there is a plain doorway with a partly glazed door under an oak lintel, with a 3-light, oak framed, mullioned, leaded lattice, casement window above; then a 5-light window as before, with oak cill and lintel, one on either floor, but having slightly different glazing patterns; then a plain doorway with a partly glazed door under a stone lintel; then a 3-light casement window on each floor as before. All these openings can be seen to have been inserted into the existing wall.

The street elevation retains the central cart doors which are the only real visual evidence of the building’s agricultural origins. This has a 5-light mullioned window above and below, small lean-to extension to right.”

There are no plans within the 1914 sales particulars and no photographs which show Gardeners’ Cottages, but the description of the property contains two candidates for identification with the building. These are

“The Great Garden House
containing a LARGE HALL measuring 40ft. by 20ft., with men’s rooms over for three men. This picturesque building is stone built and stands in the forecourt.

The Cottage or Lodge
is used as a Bothy and contains two Living Rooms and three Bedrooms over.”

(GRO D25.1407).

The account notes of the buildings in the courtyard to the east of the Palace that “Inside there was little left of interest but a general condition of rottenness and decay” and that the buildings were “modest both in feature and in height, running around two little courts”.

The outer court was reached through a gatehouse built by Bishop de la Zouche. This building is likely to have been of three storeys like that at nearby St Pierre, but “After the bishops deserted their home early in the eighteenth century it soon became material for farm buildings, and the saddle-back mouldings of its parapet were found to be most conveniently shaped to form the louvres or ventilating slits of *the barns, of which its side walls still form the ends* [our italics]” (*ibid.*). All that remains visible of the gatehouse are “the remains of an iron hook on which swung one of the great doors, and the stone doorway into the newel stair which gave access to the rooms above” (the latter is still evident on the southern face of the building to the north of the entrance into the courtyard, i.e. to the north of Gardeners’ Cottages). A stone bearing the date 1419 was in the museum at Caerleon and said to be the date stone of the gatehouse at Mathern Palace (*ibid.*).

6. Historic Building Recording by Niall Oakey

At the time of the survey (22nd March 2007) the exterior of the building was surrounded to roof level with scaffolding and many of the internal walls had been removed (Plate a). Predominantly these had been stud partition walls, but a brick wall running from north of WG05 to north of DG04 had also been removed on both floors (Appendix 2 fig A 2.1). The bricks from this wall were available for inspection by Niall Oakey on 16th March 2007 and they were of 20th-century date. The more northerly east/west brick wall had been retained within the building as it contained a fireplace and chimney stack. With the exception of fireplaces and staircases most internal fittings had been removed, as had ceiling and wall panels and most internal plasterwork. The floor and two flights of stairs remained, but the upper floor was open to the roof. The internal stone - and brickwork was exposed. Externally, some raking out of joints between the stonework had taken place, but this was restricted to the ground floor elevations at the time of the survey.

The building was of four bays (numbered from north – south) and at the time of the survey of two storeys. Predominantly it was constructed of roughly-coursed rubble, the presence of dressed stonework and regular coursing usually being indicative of either original openings or later blocking. It had a plain roof of clay pantiles supported on a traditional truss and purlin roofing system, with an external stack to the south gable and a central one at bay two. Openings were generally framed in oak with oak lintels, sills and frames to the windows and doors. Internally the building was floored in concrete at the same level as the exterior yard. In some areas of the building quarry tiles had been attached to a surface that was not of concrete. Lath panelling within timber framing had been used at some points on the main walls (sometimes sealed by cement render or brickwork) and bricks had been used for blocking or reconfiguring the reveals of openings (usually internally).

In only one location was brickwork visible on an exterior elevation). Rainwater goods were of cast iron, aluminium or asbestos cement and at the northern end of the east-facing elevation was a single-storey lean-to of rendered brick with a pantile roof.

The numbering of openings follows that on Gerald Eve’s survey (see Appendix 2).

6.1 The original barn building

The building had been constructed in rough courses of rubble, but each corner had quoining formed of dressed stones. Quoining also survived at the northern and southern sides of the two opposing former full-height openings in the second bay from the north (Plate b). No evidence survived for the fastenings and form of the original blocking of these openings, but it is assumed that they were wooden doors which could be opened to provide access for laden carts and a through draught for a threshing floor. The quoins on the opening through the east-facing elevation did not extend to the full height of the wall, ceasing at the level of the lintel of the later first-floor window WF03, and on the west-facing elevation the quoining on the southern side had been replaced at ground floor level with brick (Plate c). This had taken place only on the exterior elevation, stone quoins surviving on the interior, and it is not clear whether the bricks were associated with the building operation in the 1890s or represented an earlier repair.

Evidence for blocked original openings was visible on the south wall (Fig.4) and west-facing elevations. In the former instance, openings blocked with brick internally flanked the later chimney and their locations were also apparent on the exterior elevation. Internally, to the east of the chimney the bricks had been removed to reveal a wooden lintel (1.49m long x 0.19m thick) supported on reveals formed by large pieces of dressed, whitewashed stone. The opening was 0.81m wide at the internal face of the wall, but narrowed towards the exterior (Plate d). A wooden lintel at a similar height (0.97m long x 0.19m thick) could be seen above the brick blocking to the west of the chimney and neither of the blocked openings respected the inserted floor level. Subsequent removal of the floor made more obvious the survival of two large dressed stones as quoins at the western reveal of the more westerly of the two blocked openings in the southern wall (Plate e). One of these had had mortices cut into it to receive floor joists, as had the brick blocking.

Externally, the opening to the west of the chimney stack was more obvious as two sets of quoins formed of dressed stones flanked a narrow gap backfilled with smaller, squared off stonework. The top of the opening was marked by a horizontal slab (Plate f). The equivalent opening to the east of the chimney had been disturbed by the insertion of windows WG06 and WF05 and could be seen to be a point of structural weakness (Plate g). Quoining of large, dressed stones formed the western reveal of opening WG06 and could be seen extending above the lintel of the window. It is assumed that the eastern quoin had been destroyed during the insertion of WG06 and WF05.

On the west-facing wall much rebuilding could be seen in the area of doorway DG04 (see below), but 0.85m to the north of its northern respond was quoining, formed again of large dressed stonework (Plate h). Internally, surviving plasterwork obscured the details of the construction of DG04, but 0.96m to the north of its north respond was more quoining. This comprised four large stones with smaller stones extending above to form a total height of 1.42m and to support a timber lintel 0.16m thick (Plate j). The base of the lintel was 2.30m above the concrete floor, but its southern extent was masked by plaster. It did not seem to extend to the south of DG04. These internal and external quoins may represent the northern respond of a slit opening at ground floor level which widened through the thickness of the wall. This opening had been disturbed by the construction of DG04, but features still surviving on the southern respond of that opening (and above) may relate to the original

construction. To the south of DG04 two sets of quoining can be seen, the more northerly supporting a concrete lintel above the opening (Plate h).

The southern quoin extends to the full height of the building on the external wall and bounds an area of blocking above DGO4. Formed of coursed stonework externally, the blocking was partially formed of brick internally, with internal stone quoining to the north and south of the brickwork, supporting a wooden lintel at eaves level.

A break in stonework (Fig.5) ran the full height of the building on the north-facing elevation to the east of WG02 and seems indicative of major modifications to the original structure in this area (Plate k). This is possibly related to the demolition or collapse of an adjoining building, probably a gatehouse into the palace yard. Remains of this building, including the foundations of a stairway, are apparent on the southern elevation of the cottage on the northern side of the current road access to the Palace.

The roof structure is not original to the building, but the large (270 x 190mm and 250 x 240mm) ties at trusses C and D may be reused timbers, possibly from the original structure. Trusses A and B did not include such ties and it is possibly not an accident that substantial trusses C and D flank the former full-height opposing openings. An examination failed to reveal either carpenter's marks or former mortices, although it should be noted that the upper surface of the beam at truss D was not available for examination and that both ties had been thickly over painted.

Running along the eastern and western walls internally was a dropped sill with thinner stonework above (Plate l). The inserted windows occasionally respected the sill, using it as a support for a lintel, for example, but they had been inserted through it and modifications had been made to accommodate the existing roof structure. Wall plates of the existing roof rested on the top of the thinner upper section of wall and the dropped sill was used only to support the eastern ends of the large ties of trusses C and D. All of this evidence seems to indicate that the dropped sill does not relate to the 1890s conversion or subsequent changes and is more likely to be an original feature.

6.2 The 1890s conversion

All existing unblocked openings have been inserted into the building's fabric, the majority in the 1890s. At the same time former openings were blocked, sometimes with the aim of completely eradicating them (the openings on the south-facing elevation), sometimes using them as the framework for the new openings (the windows in the former opposed full-height openings).

The 1890s openings were readily identifiable from the use of hardwood lintels and sills (later ones, such as DG04 had concrete lintels). Windows were formed of lights of 12 leaded panes, but there was some variation in the arrangement of the windows within the frames. Of the triple windows, the flanking windows of WG07 and WF06 opened, but only the central window of WF02 opened. Of the double windows, all lights opened on WG06 and WF05, but only one did so on WG02. The arrangements of the five light windows also differed from one to another. Windows WF01 and WF03 each had non-opening central and outer windows with those flanking the centre opening, but WF03 (eastern wall) was not as tall.

Downstairs, the opening arrangement was similar for WG01, but the central window was wider than those upstairs. All three of these five light windows had timber-framing and wattle-filled panels below, although the surface finish varied. Both WF01 and WF03 had the timber-framing and wattle left open to the inside (e.g. Plate m), but on the exterior the wattle fill on WF03 was covered with white-washed cement render (Plate b) whilst WF01 was covered with mortared stonework. A cement finish had been applied to the exterior of WG01, but works revealed that this covered timber framing with panels of coursed bricks covered in render (Plate n). Internally a brick wall had been constructed leaving a narrow gap to the timber frame. The blocked threshold below WG01 was partially formed of concrete and partially of Pennant kerbstones, probably reused as they were stained with tarmac.

At ground level below WF03 three vertical timbers framed a door and a triple window WG03 (Plate b). The former had a timber-framed panel above, plastered internally and rendered externally with a whitewash finish. The central light of window WG03 opened and the flanking lights had horizontal reinforcement bars halfway up. One pane in the northern light had held a circular extractor outlet. Externally, the area below the window was finished with coursed stonework.

Doorway DG01 had a wooden lintel and contained a two flap stable door (Plate p). Quoining was present to both jambs on the exterior of the opening, but internally the southern jamb was formed of bricks (the northern one was obscured by panelling). This variety of internal finish to the openings was evident elsewhere. For example, window WG07 splayed internally by 0.10m, all at the northern reveal. This side had stone quoins, whilst the southern reveal was formed of bricks and plaster. It is possible that stone quoins on the reveals are original to the 1890s work with a reduction in the width of windows later. For example, to the west of the western reveal of WG06 were three stone quoins, probably the original reveal, whilst the existing western reveal was formed of quoining of bricks and slates (See Fig.4). WG02 only had quoining to the west and the widening of the reveal at this side was much more pronounced (the eastern edge coincides with the masonry break which extended through the full height of the building), but the joinery of the window varied from the majority in the building ((see below, 6.3).

The brick cross wall and chimney stack at the northern bay is assumed to date from the 1890s conversion. At ground level two partially-blocked, open, brick fireplaces could be seen on opposing walls, the infilling introduced to accommodate later fireplaces (Plate q) At first floor level, the brick wall supported the tie beam of truss D, with the chimney stack continuing to ridge level. The gaps were infilled with wattle panels (Plate r).

The exposed roof structure appeared to largely derive from the 1890s conversion. As noted earlier, the ties at trusses C and D may have been reused either from elsewhere or from an earlier structure. The ties of these trusses were supported on the top of the walls with stone plinths introduced onto the dropped sill to provide additional support. They also had support struts at their western ends, running up to the level of the collar. Trusses C and D had both ties and collars with the ceiling joists interposing to leave the ties exposed, whilst A and B had single ties halfway up the principal trusses, hidden from view by the ceiling joists.

The structure and dimensions of the purlins and principal trusses was consistent across the whole roof, but the rafters were far less regular in both size and position. Many extra rafters had been introduced at the northwest and southwest corners, perhaps at areas of perceived weakness or movement. The date of these modifications is unknown.

Also unknown is the date of the lean-to single-storey extension built against the northern end of the east-facing wall. It was not possible to examine this building internally but the fact that it also had a pantile roof suggests a similar date of construction to the roofing of the main building. It contained a single outdoor toilet as well as a store-room. The lean to formerly located to the south end of the east wall left no obvious scars on the wall (see Fig 10).

6.3 Later modifications

At the time of the recording most of the internal fixtures and fittings associated with the modifications of the 1920s and later had been stripped out together with wall coverings, ceilings and some stud walls. However, all surviving fireplaces dated from this later period. Those on the northern stack (below truss D) had been inserted into wider earlier fireplaces. One was topped by a firebrick bearing the legend “PRICE PEARSON 16 LINTEL” and had been surrounded by a mid 20th-century tiled surround (removed before the survey), whilst the other had a decorated cast iron surround to the grate (Plate s).

At the southern end of the building a chimney stack was built onto the exterior of the building. Inside the building at this point was a 20th-century fireplace and boiler within a brick fireplace, and above this rebuilt stonework could be seen rising to the level of the first floor (Plate t). However, it could not be traced on the first storey until above the level of the lintel of WF05 where brickwork could be seen. This brickwork extended across the interior face of the southern wall on the western gable and reached down to eaves level. No difference could be seen between this brick and that in the upper part of the chimney, suggesting that rebuilding work had taken place in this area as part of the later modifications (See Fig.4).

Other later modifications may include openings WG02 and WF05 or the windows at least. This interpretation is derived from the joinery of the window frames which, in the case of these two windows is squared rather than displaying the curved mouldings seen on all the other multi-light windows. Definite later openings include the current form of door DG04 which had been inserted into a wider opening and had a concrete lintel, together with three small openings on the east-facing elevation (WG04, WG05 and WF04). These were all much smaller than the earlier openings and had single lights (two in the case of WF04) without leaded small panes. They had been positioned to light smaller rooms to the rear of the property.

The almost random nature of the additions to the roof structure make it difficult to relate them to any particular phase of construction, be it 1890s or later.

7. Results of the watching brief (by Dale Rouse)

Prior to the start of the watching brief the Gardeners Cottage had been gutted and the concrete floors (context 100) had been broken up and removed, as had part of a quarry tiled floor (108/109). An internal stone wall (125) that had enclosed a bay in the south end of the building (located at 4.20m from the south end) had been removed, down to the floor level (Fig.6).

The watching brief monitored and recorded the excavations to reduce floor levels within the building by around 0.60m. Also monitored was the excavation of a trench for a new internal cross wall, and excavations for underpinning the south wall of the building, both of these excavations were around 1m deep.

7.1 Excavations to reduce the internal floor levels.

The ground floor of the building was divided by internal crossing walls into the three bays that were probably created in the late 19th century, south, middle and north, the middle bay was divided by the remains of a central, north-south aligned timber partition. The north and south bays of the building had concrete floors, while the floor of the middle part of the building was quarry tiled. Underlying the modern floors was a series of earlier floor layers and deposits that varied in composition between bays (Fig.7).

The excavation results are described below a bay at a time, as each bay appears to have been treated to some extent as a separate entity during the later life of the building.

7.1.1 The southern bay.

The southern bay comprised an area from the inside of the south wall to the removed stone wall (125, mentioned above) at 4.2m to the north, the dimensions of this bay measuring roughly 6.1m x 4.2m.

Underlying the concrete floor (100), which was up to 0.15m thick, was a layer of loose black soot or coal dust (101) up to 0.16m deep. Within the deposit were pieces of relatively recent glass and (19th-20th century).

Below 101 was a mortar and ash floor layer (102) that averaged 0.10m thick. The floor was mid/dark grey with charcoal fleck inclusions. Towards the middle and north of the compartment the floor had slumped by up to 0.08m.

Three iron drain covers (116) had been set into the mortar floor surface. The drains were set into brick structures, 3 courses deep, that lay in a line from east to west across the floor. The drains were connected to 6" glazed ceramic drain pipes and the fall of the drains ran towards and out under the south wall of the building.

Underlying the mortar floor and cut by the drains was a layer of red/red brown clay, sand, grit and gravel with occasional cobbles that was up to 0.14m deep (104). The material had been laid as bedding for the mortar floor and was probably derived from local natural deposits. No finds were present within the deposit.

Under layer 104 was a deposit of very loose and dusty levelling material (111) that varied in depth but was present throughout almost the whole building. The deposit was a generally very dry, light/mid grey/brown silt containing a high percentage of mortar as well as stone, charcoal, sand and gravel. The deposit appeared to be derived from building rubble and filled a depression or cut within the building where slumping of the floor (102) had previously occurred.

Underlying 104 and the filling material 111, and surviving mainly towards the outer walls of the building were patches of dark red/brown sandy clay and gravel (105). Within the deposit were animal bones (sheep/pig/cattle/poultry), mortar, charcoal, post medieval and later pottery and stone roof tiles. Underlying 105 was a natural layer consisting of red/red brown clay and sand with rounded gravel and cobbles.

7.1.2 The middle bay.

The middle bay of the building measured roughly 6.1m x 8.7m from the stone wall (125) to the chimney stack wall towards the northern bay. The floor of this area was tiled with 6" red quarry tiles (108 tiles, 109 cement bedding). Underlying the tiled floor were two layers, 110 and 114.

Layer 110 occupied the southern half of the bay and consisted mostly of compacted mixed sandy silt and rubble containing pieces of mortar, brick, sand and stone. The deposit was 0.15m deep and filled the space from the removed stone wall (125) to the south edges of the blocked east and west doorways.

Cutting the north edge of 110 was a 0.10m deep mortar/ash surface (114). The surface was identical to and possibly contemporary with 102, located in the southern bay. The two surfaces (102 and 114) did not however lie at the same level and 114 continued through into the northern compartment (forming floor 103).

Layers 110 and 114 overlay a 0.15m thick deposit of loose black soot or coal dust (126) that was probably the same material as context 101 in the southern bay. The finds from the deposit were much the same as those in 101. The deposit covered the whole of the middle bay from wall 125 to the chimney stack wall at the north end of the middle bay.

Underlying the black soot layer was another mortar/ash floor (127), the floor layer was identical to the mortar/ash floors already seen (102 and 114/103) and covered the same part and area of the middle bay as layer 110 that lay above. This layer also ended in a straight edge at the south edges of the east and west blocked doorways.

Below 127 was a deposit of red/red brown clay and gravel, identical to 104 (as described above). This deposit in turn overlay the levelling deposit 111 (also described above). Similar deposits of re-deposited natural to 104 (112/115) also overlay 111, and related to the construction of the chimney stack that separated the northern and middle bays.

Layer 111 spanned almost the whole of the bay and exceeded 0.30m deep. Within the area of the blocked doorways it overlay a truncated cobbled surface (113) that appeared to partly underlie the outer east and west walls of the building. The surface appeared to have extended beyond the walls of the building and also appeared to slope towards the inside of the building, but had been truncated within 1m of the east wall.

7.1.3 The northern bay.

Below the concrete floor (100) in the northern bay of the building was a thin layer of trample that had inclusions of charcoal and sand (107). The trample overlay a mortar/ash floor surface (103 aka 114) which was the possible equivalent of 102, as described above. Set flush within the floor surface in the angle between the west wall and the chimney stack wall was an "L" shaped formation of bricks.

Underlying the mortar floor was a deposit (same as 104) of red brown silty clay up to 0.14m deep, used as the bedding for the mortar floor, no finds were present in the deposit. This deposit overlay a similar deposit of re-deposited red brown mixed clay (112/115) related to the construction of the base of the chimney, within the deposit were pieces of fairly modern pottery (19th-20th century).

Below these layers was layer 111 (the levelling material already described) which spread from around the chimney base towards the east and northeast part of the bay, and averaging around 0.30-0.40m in depth.

Layers 111 and 104 both overlay layer 105 (a former occupation layer), which was not as badly truncated as it had been throughout the rest of the building and which occupied most of the west and northwest parts of the bay. Finds from layer 105 in this bay were all potentially medieval, being mostly pieces of green glazed ridge tile dating between the 13th and 15th centuries. Animal bones (pig, sheep, cattle) and stone roof tiles were also present within the deposit.

Also within layer 105, between the chimney breast and the north wall, were pieces of stone, below which at between 0.20-0.30m below the concrete floor level were traces of a stone wall (128). The wall was located at 2.10m east of and parallel to the west wall. The alignment of the wall appears to match well with wall 121 located by excavation in the middle bay (see below). Wall 128 measured 0.75m wide x 0.50m deep (at least), no evidence of bonding material was present in this part of the wall.

Wall 128 (lying partly under the north wall of the building) may have been truncated by the construction of the present building which directly overlies it. The north wall on the east side of 128 stepped down and was deeper by at least 0.45m. At the bottom of the north wall was what appeared to be an original relieving arch (Fig.9). No other finds or features were present in the northern bay.

7.2 Excavation for a new cross wall.

During the excavation to reduce the floor levels within the building a 1m deep trench was dug for the foundation of a new internal wall crossing at 5.80m from the south wall of the building. The new foundation trench was cut to below the reduced floor level and exposed some features that appear to predate the present building.

The main feature exposed by the trench was a stone wall (121) exposed at almost 0.93m below the existing floor (100) level and underlying the present building.

The wall (121) was located 2m east of and roughly parallel to the west wall of the building. The buried wall was contained within a cut [120] measuring 0.90m wide x 0.50m deep. No bonding material was present in the exposed section of wall. The length of the wall is not known as it was only exposed where the foundation trench intersected it (Fig.8).

Partial remains of a wall, probably the continuation of 121, were exposed in the northern bay (128) and by underpinning work on the south wall and chimney.

Butting the eastern side of the buried wall (121) was a layer (122) of organic grey silt, possibly a cess deposit containing charcoal, burned bone as well as burned and waterlogged wood. The deposit measured in excess of 2m long by 2m wide and 0.45m deep. If the wall

and the cess layer continued into the south bay the cess deposit could go some way to explaining the slump noted in the mortar/ash floor (102), as the slump directly overlay this very soft material.

The cess layer was cut by a small bowl shaped feature [118] that measured 2.2m by 0.40m by 0.40m deep, the feature was filled by deposit 119 which was a light mid brown silty clay that contained charcoal but no other finds. Natural red clay, sand and gravel lay below.

7.3 Underpinning, the south end of the building and the chimney.

Underpinning holes averaging 1.30m long by 1m deep and 1m wide were excavated in stages around the south end of the building and the external chimney. The excavation revealed a concrete footing below the chimney which dated from the time of the restoration of the building in the 1920s, when the chimney was built onto the south end.

Nothing of archaeological interest had been present in most of the underpinning holes, until the hole on the west side of the chimney breast was excavated. Here the excavation revealed the remains of a stone wall that appeared to be the continuation of the wall found underlying the building during the removal of the internal floor levels (121/128). The surviving section of wall had no obvious bonding material and measured in excess of 0.50m wide (partly obscured as it was underlying the chimney foundation) by over 0.50m deep. The wall remains continued into the south section.

The wall had been truncated by the work carried out to build the chimney but enough of it remained to see that it was probably the same wall as 121/128. A piece of green glazed 13th - 15th century roof tile was excavated from the same hole, as was a piece of possibly Roman roof tile (Imbrex).

As the chimney had a foundation already, it was decided that it was not necessary to underpin it. Underlying the existing yard surface and located close to the chimney (on its south side) was an iron drain cover measuring 0.30m by 0.60m set over a concrete/brick chamber of similar dimensions. The drainage chamber had connected to the drains found in the south bay of the cottage (see 7.1.1 context 116 above). As it was not known whether this drain chamber was still connected to any live drains it was decided that this too should be left in situ. No other finds or features were present in the areas excavated for underpinning.

8. Discussion

The excavation.

The earliest feature uncovered was a stone wall aligned roughly north-south which may have been part of an earlier structure. Features found on the eastern side of the wall contained roof tile that dated from the 13th-14th centuries, the majority of the finds sealed by later floor layers associated with the barn were roof tile of a similar date range, possibly implying that the stone wall was originally of a building of the later medieval period with a tiled roof.

The excavations within the building produced floor surfaces that related to the building's earlier phases of use as a barn, these earlier floor layers related to two or more phases of use of the building. The dateable evidence from the floors and associated layers dated from the later post medieval to modern periods.

The earliest surface located by the excavations survived only as fragmentary patches of cobbled surface (113) adjacent to the west and east walls. The next surface up was a mortar and ash floor (102/127) occupying the southern end of the building. A spread of soot and coal dust (101/126) overlay the mortar floor, over which was laid a second mortar and ash floor (103/114) of identical consistency, colour and texture. This second mortar floor occupied the northern half of the building. A modern concrete floor (100) covered the north and south bays of the building while a quarry tiled floor covered the middle bay.

The building survey.

Scars left by demolished buildings or parts of buildings are evident in the north wall where the straight vertical break coincides with the former position of the gatehouse and in the west wall where the full-height quoining at DG04 is assumed to relate to the removal of the short arm of the "L" of the building shown on the Tithe Map. The quoining on the south-west corner is very neat and either has been rebuilt very carefully or may indicate the removed short arm of the "I" had been a later addition to a rectangular barn.

Though the configuration of the building has altered considerably from the original design, some of those original features still exist within the fabric, such as the large double doorways on the west and east elevations. There is no trace remaining of the south west extension that gave the building its "T" shape.

9. Bibliography

9.1 Cartographic sources

1840s	? Tithe map of the parishes of Mathern and Runstone (Gwent Record Office D1111.10)
1886	First Edition Ordnance Survey
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1921	Third Edition Ordnance Survey

9.2 Documentary sources

1914	“Sales details for auction of Mathern Palace on Monday May 18 th , 1914 by Collins & Collins at The Beaufort Arms Hotel, Chepstow” (Gwent Record Office D25.1407)
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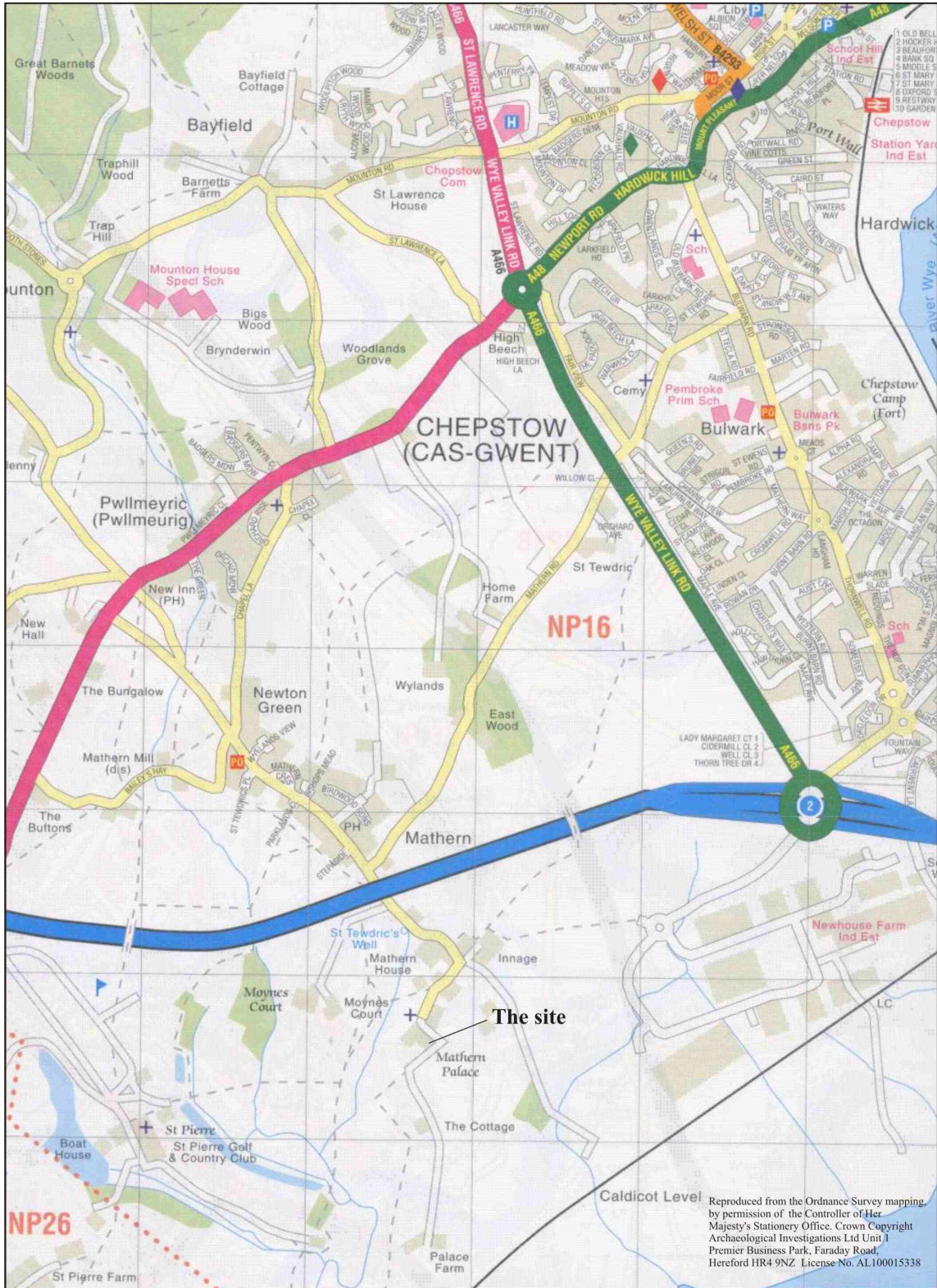
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Bradney, J., 1933 *A History of Monmouthshire. Volume IV. The Hundred of Caldicot (Part 1)* repr. 1994 Merton Priory Press

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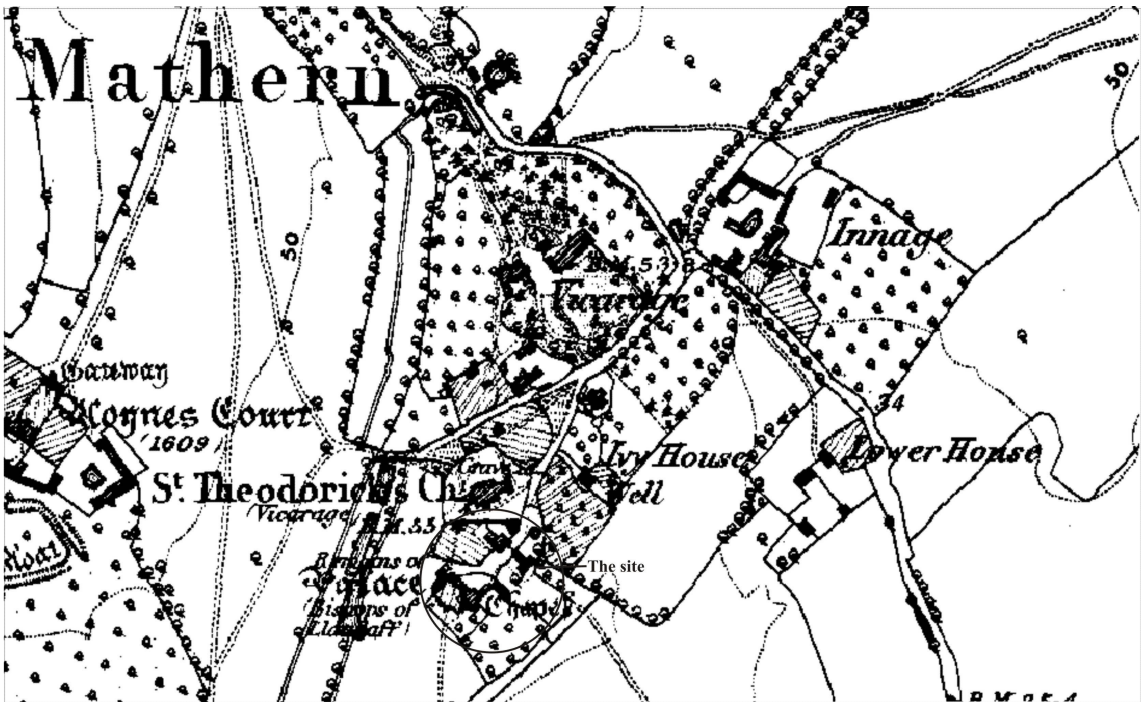
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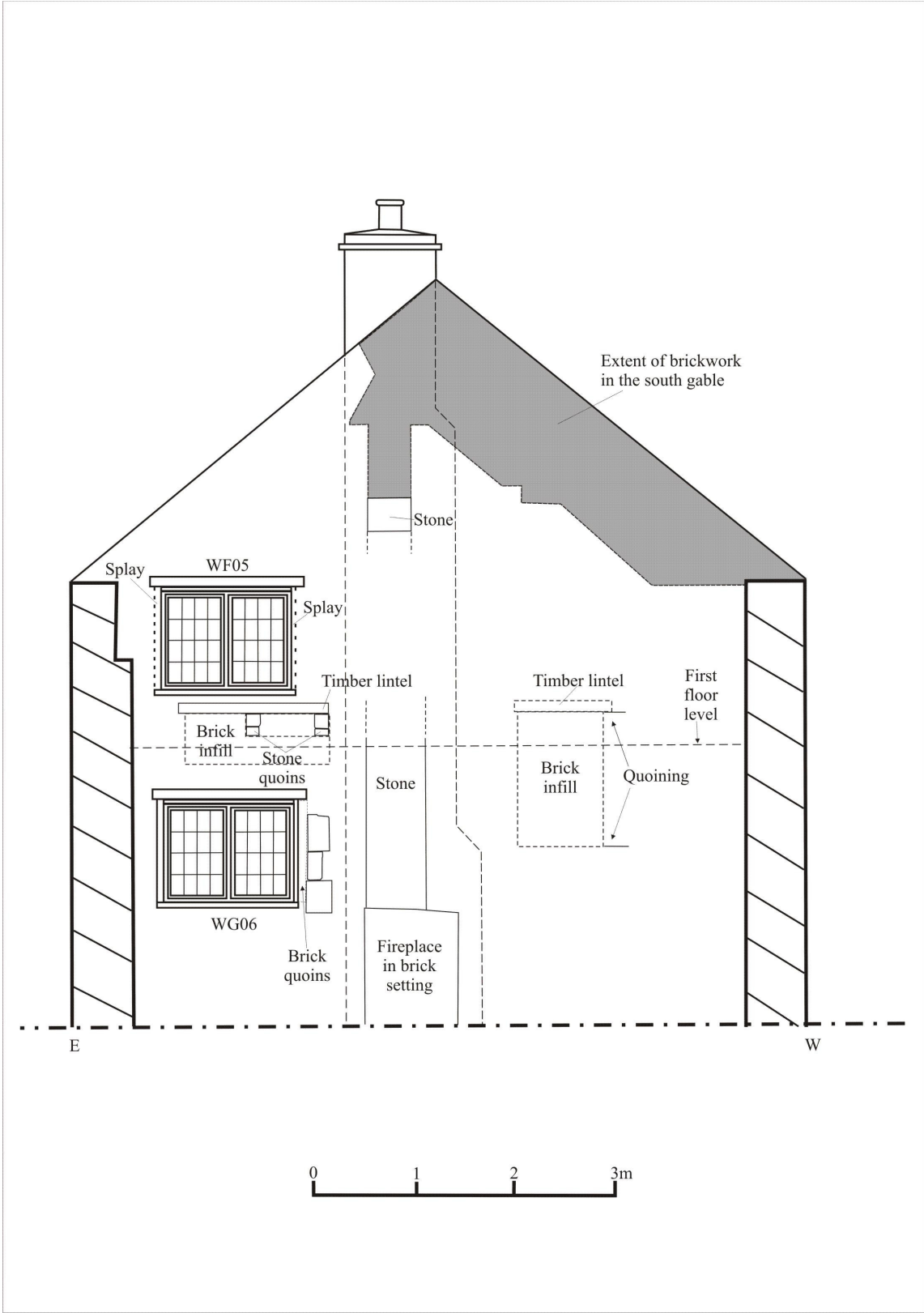
Location of the site at Mathern Palace, Fig.1.



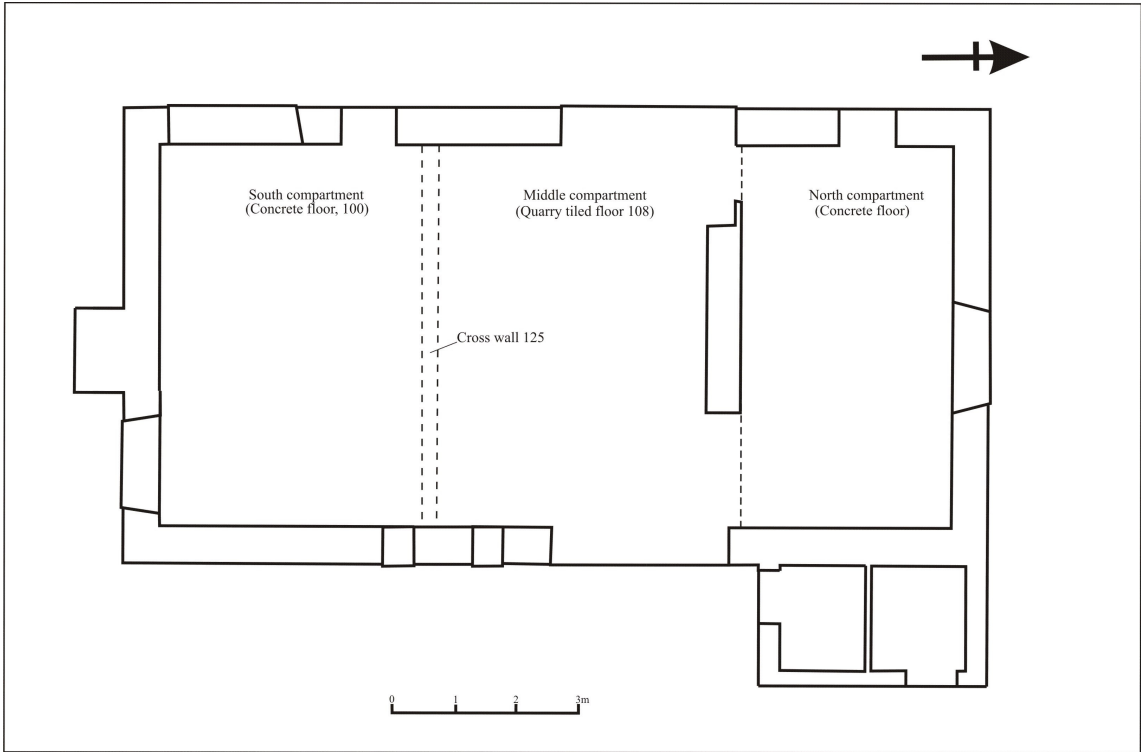
Mathern and the site on the 1840s Tithe Map, Fig.2.



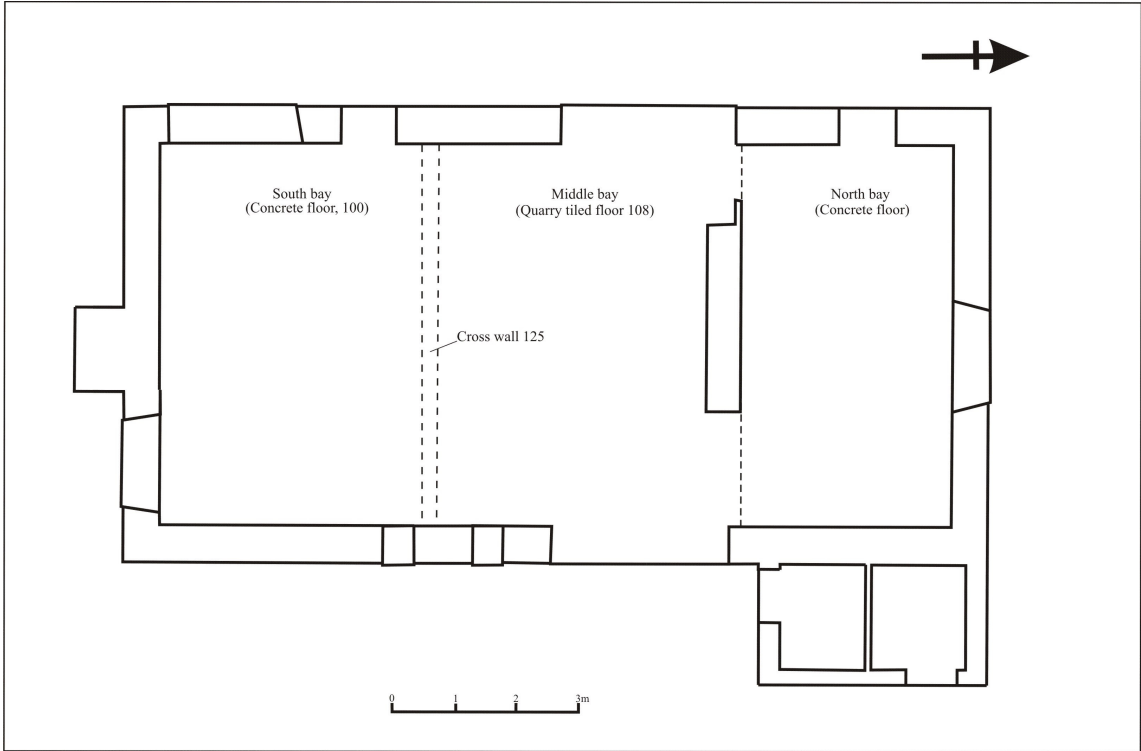
Mathern on the First Edition Ordnance Survey map of 1886. Fig.3.



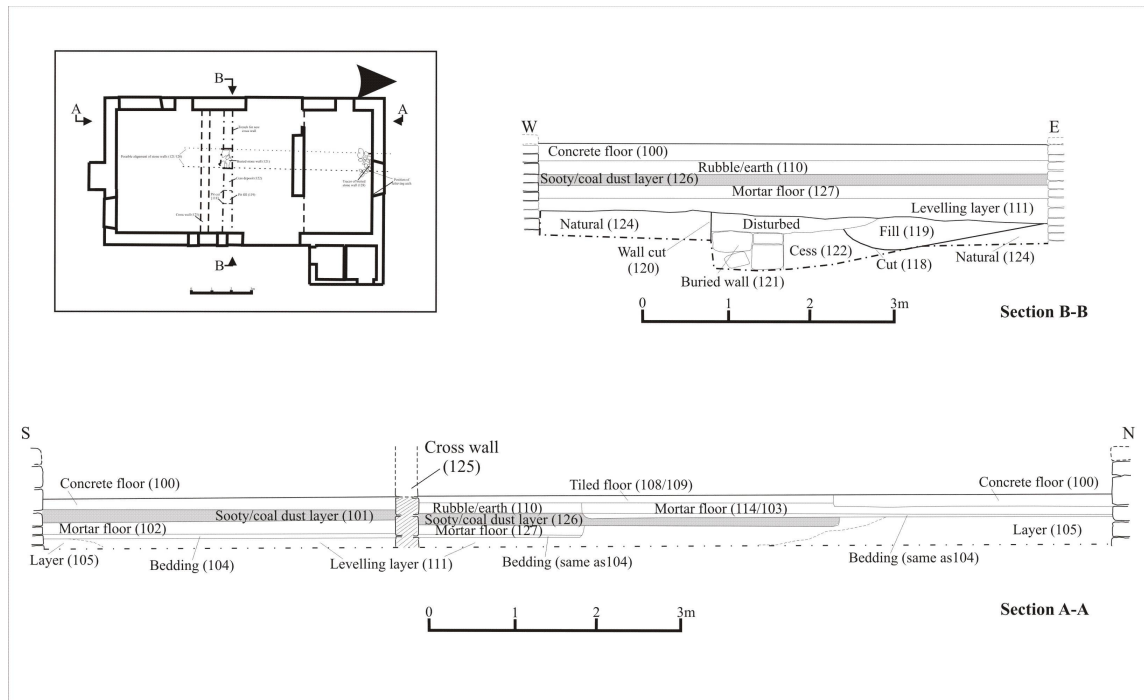
South internal elevation of the Gardeners Cottage at 1:50 scale, Fig.4.



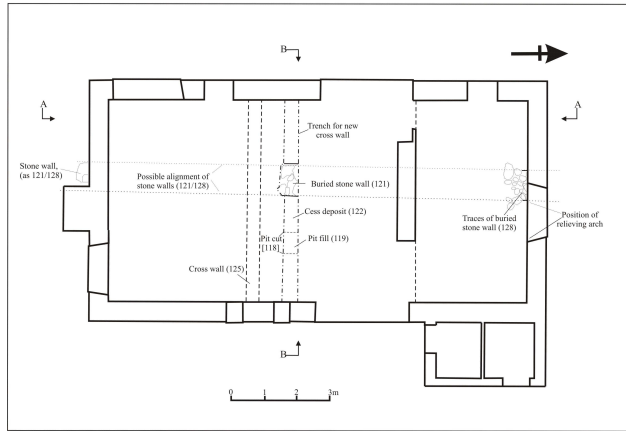
The Gardeners Cottage divided into compartments (scaled to fit), Fig.4.



The Gardeners Cottage divided into compartments (scaled to fit), Fig.6.

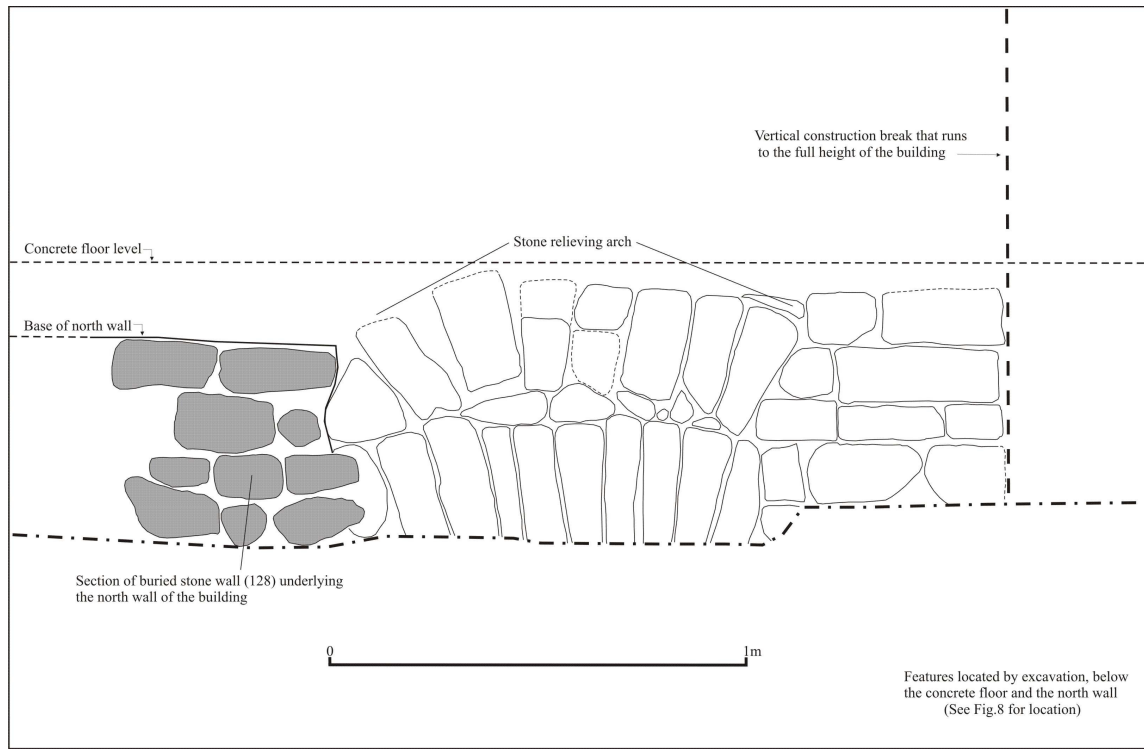


Cross sections through the Gardeners Cottage (at 1:50 scale), Fig.7.

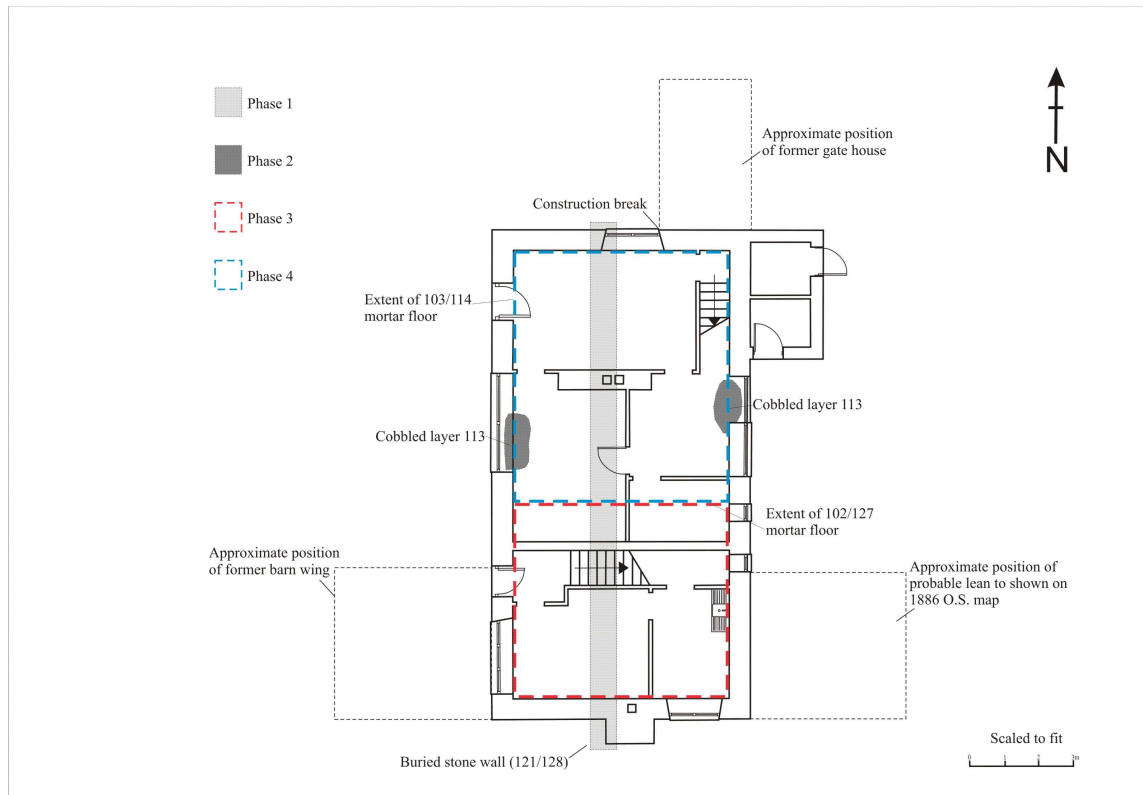


The Gardeners Cottage locating features exposed by excavation (scaled to fit), Fig.8.





Relieving arch and wall 128 at 1:10 scale, Fig.9.



Phase plan, and locations of various demolished features, Fig 10.

Appendix 1. Site archive.

The site archive will be deposited at Chepstow Museum.

1. 30 Context sheets
2. 1 Context register
3. 22 Pages of site notebook notes including 10 pages of sketch drawings
4. 3 Colour photographic film
5. 3 Black and white films
6. 71 Digital photographs
7. 9 Photographic registers
8. 10 Drawings on drafting film
9. 1 Drawings register
10. The finds
11. A copy of this report

Appendix 2. Photographic registers and photo locations.

Appendix 3. Pottery and ceramics report.

Appendix 4. The finds (by Benedikte Ward)

The following finds were retrieved from the site:

Pottery (see pottery report)

There were a total of 15 sherds of pottery both medieval and post medieval.

Animal Bone

A total of fifteen animal bone fragments were retrieved from the site. Sheep bone, a pig jaw and an antler bone, which showed it had been cut off the skull. The animal bone assemblage was however mainly undiagnostic. One oyster shell was also retrieved.

Building Material (see pottery report)

A total of thirteen fragments of building material were retrieved. One modern fragment of brick was noted but not retained.

Metal objects

A total of two small nails were retrieved.

Miscellaneous

One small fragment of a clay pipe stem was retrieved.

Three fragments of clear vessel glass were retrieved. One piece of modern window glass was noted but not retained.