

# KNOWSTONE MILL KNOWSTONE DEVON

Results a Desk-Based Assessment,  
Historic Building Recording & Archaeological Monitoring



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# Knowstone Mill, Knowstone, Devon

## Results of a Desk-Based Assessment, Historic Building Recording & Archaeological Monitoring

*For*

Mr Wynne-Evans

*By*



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## *Summary*

*The Knowstone Mill buildings were of 17<sup>th</sup> century origin, but have been considerably altered throughout the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries. Much of the historic fabric of the building and the mill machinery had been lost as a result of these changes, and the surviving historic core of the building had been severely damaged by a devastating fire in the early 2000s. This report outlines the structural and archaeological evidence uncovered during the restoration of the buildings and their phasing.*

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 The Staff of the West Country Studies Library  
 Steve Reed, DCHES

## 1.0 Introduction

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**Location:** Knowstone Mill  
**Parish:** Knowstone  
**District:** North Devon  
**County:** Devon

### 1.1 Project Background

South West Archaeology Ltd. (SWARCH) was commissioned by Mr Wynne-Evans (the Client) to conduct historic building recording and archaeological monitoring at Knowstone Mill, Knowstone, Devon. This was in order to discharge the archaeological planning conditions on the site in relation to the proposed conversion of two agricultural buildings to dwellings. The archaeological work was undertaken in accordance with a letter produced by Devon County Historic Environment Service (DCHES) and a Written Scheme of Investigation (WSI) produced and agreed with DCHES before the commencement of works (Appendix 1).

### 1.2 Location and Geology

Knowstone is located in typical rolling Devon countryside just off the southern borders of Exmoor. The parish lies midway between the market towns of Tiverton and South Molton (approximately 10 miles from each) and is comprised of three main settlement centres; Knowstone 'Town', East Knowstone, and Roachill (Figure 1). The Soil Survey lists the soils as those of the typical brown podzolic soils of the Manod variety, being well-drained fine loamy and fine silty soils over rock (1983). The bedrock is comprised of Bude Formation sandstones, siltstones and mudstones (British Geological Survey 2011).

### 1.3 Historical and Archaeological Background

Knowstone Mill is a Grade II listed building and was believed to date from the late 17th century, though had been considerably altered in the 20th century. It was extensively damaged by fire and it was considered possible that the proposed construction works for the rebuilding of this structure would expose fabric of earlier phases of the structure. It was also possible that groundworks may also expose artefacts or archaeological deposits or features associated with the post-medieval building or earlier structures that may have existed on the site.

Knowstone Mill, Knowstone

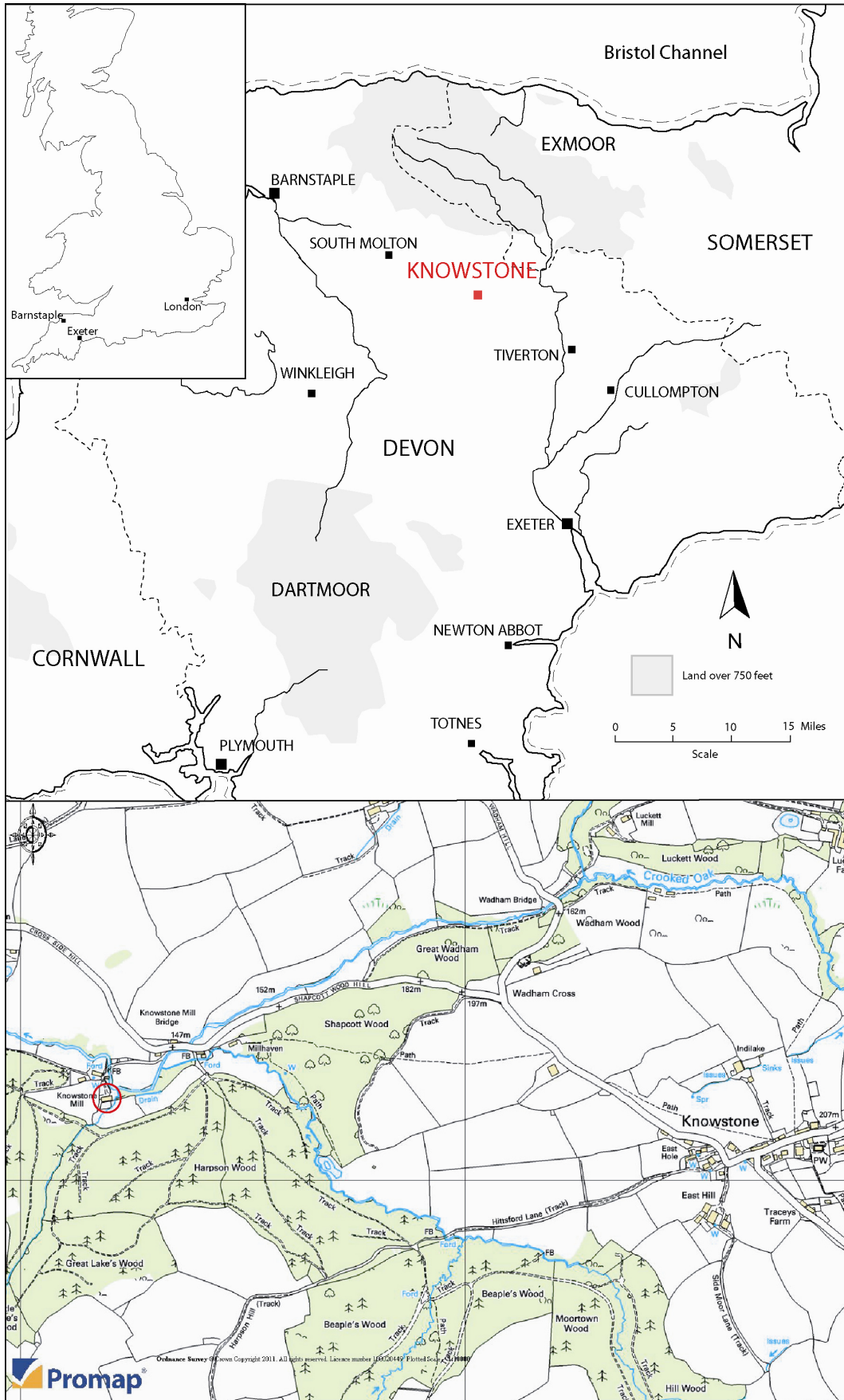


Figure 1: Regional location, the site is indicated in red.

## 1.4 Methodology

The buildings were surveyed on 20<sup>th</sup>-21<sup>st</sup> June 2006 by J. Freeman, with subsequent recording by C. Preece on 16<sup>th</sup> October 2006 and by J. Freeman on 10<sup>th</sup> November 2006. The recording work was undertaken with reference to IfA (2001) and English Heritage (2006) guidelines on the recording of standing buildings. Photographic and written records were produced.

The retrogressive cartographic analysis was undertaken by T. Green, with reference to the IfA guidelines on the preparation of Archaeological Desk-based Assessments (2008). Printed and unpublished material in the Devon HER (DCHES), the Devon Record Office (DRO), the West Country Studies Library (WCSL), and the North Devon Record Office (NDRO) was consulted as part of this work.

The reduction of floor levels inside the buildings was carefully monitored by C. Preece on 16<sup>th</sup> October 2006. A detailed drawn and photographic record was made. The archaeological monitoring and recording work was carried out to the specification laid out in the Written Scheme of Investigation, and conformed to English Heritage Level 2 standards and the appropriate guidelines produced by the Institute of Field Archaeologists.

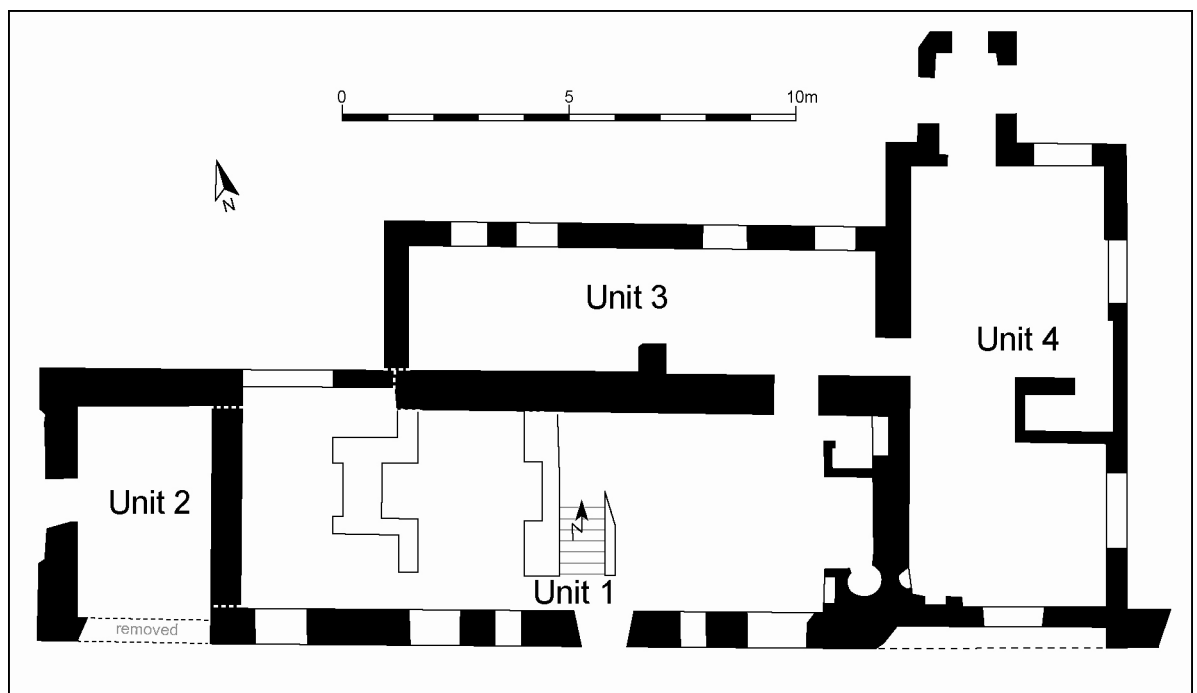


Figure 2: Ground floor plan of the surviving structures at Knowstone Mill.



## 2.0 The Desk-Based Assessment

### 2.1 The Cartographic Record

The earliest cartographic record available is the Ordnance Surveyor's Draft of 1804-5 (Figure 3), on which the one inch to the mile map published in 1809 is based (Figure 4). This appears to be of doubtful accuracy, since it places Knowstone Mill on the wrong side of the Crooked Oak Stream.

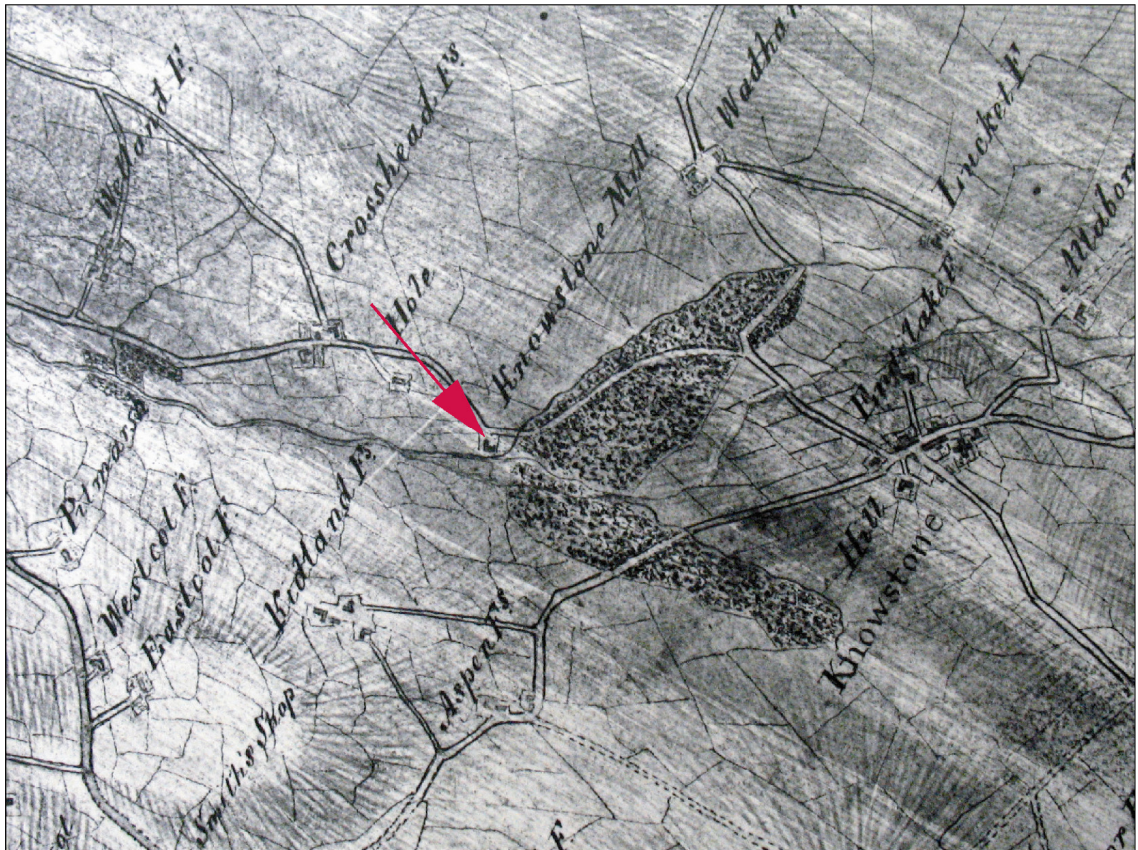


Figure 3: Extract from the Ordnance Survey Surveyor's Draft map, 1804-5 (WCSL).

The title map of 1842 is the first reliable cartographic record of the site (Figures 5-6) and the title apportionment identifies the plots numbered 212, 213, 214 as *Knowstone Mills* (see Appendix 2). The mill building, ligatured to plot 214 and coloured blue, is shown as a long building with east-west axis and with an L-shaped extension on the north side. A watercourse is shown running diagonally through the plot numbered 213, but it is not clear where it flows from or to. Comparison with later maps suggests that this is the mill leat.



Figure 4: Extract from the Old Series Ordnance Survey at one inch to the mile: published version of the 1804-5 survey, 1809 (WCSL).

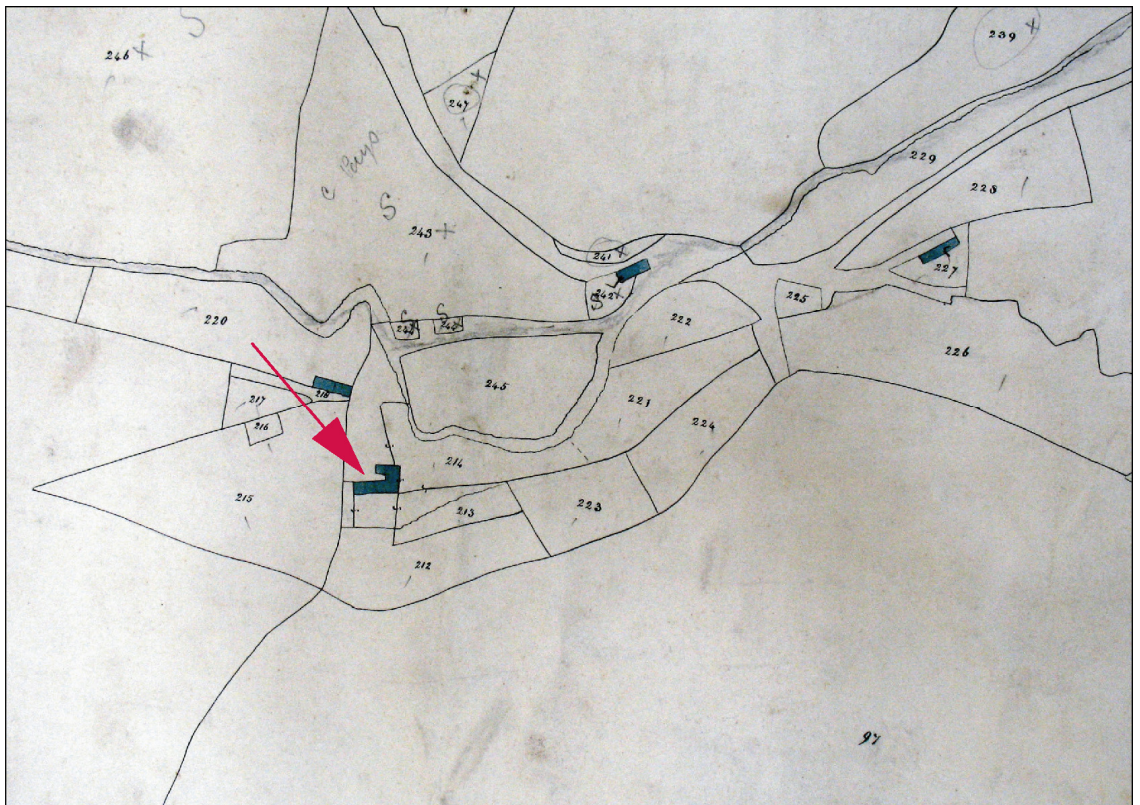


Figure 5: Extract from the Knowstone tithe map, 1842 (DRO).

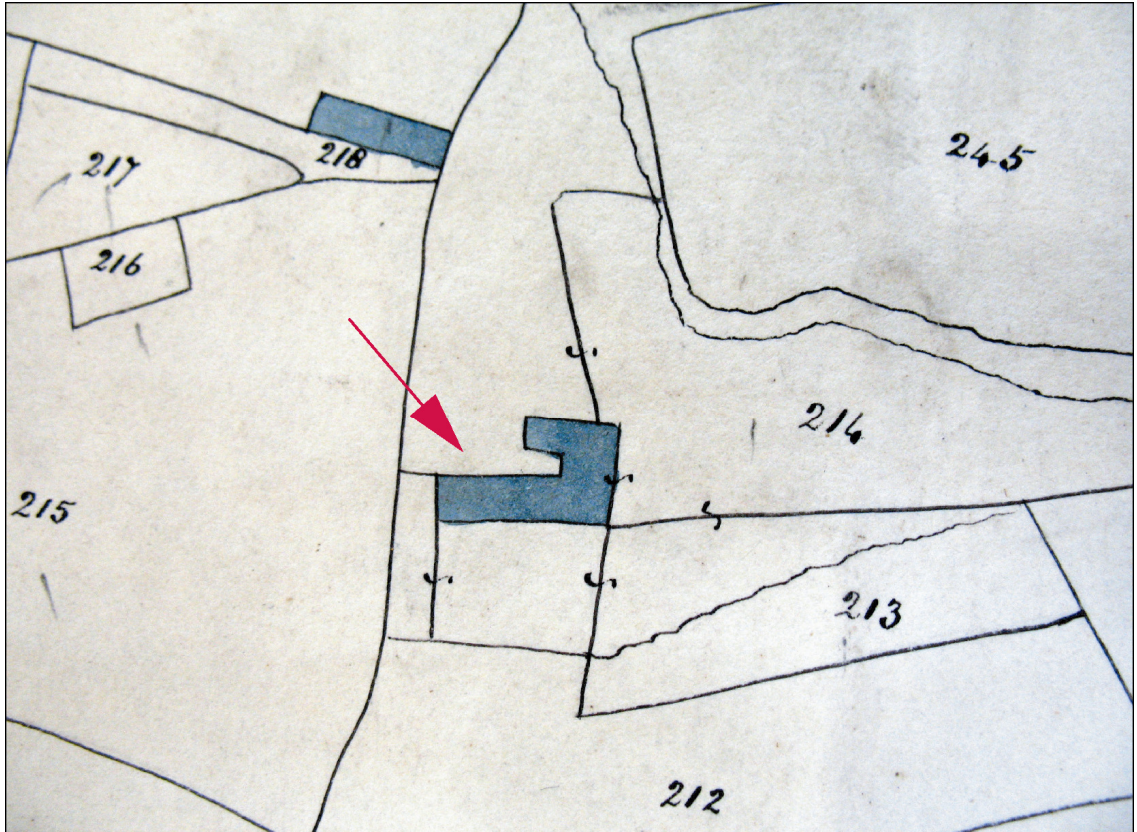


Figure 6: Blow-up from the Knowstone tithe map of 1842 showing the footprint of Knowstone Mill (DRO).

The Ordnance Survey 1:2500 maps of 1890 (Figures 7-8) and 1904 (Figure 9) show the footprint of the building much altered. The internal divisions indicated suggest an infill on the north-west and an extension to the east. The westward return of the L-shaped extension shown in 1842 has apparently been removed.

On the maps of 1890 (Figures 7-8) and 1904 (Figure 9) the mill leat is identified flowing from the Crooked Oak Stream from a point to the east of Knowstone Mill Bridge. The Ordnance Survey First Edition 1:10000 of 1890, in its colour-tinted version (Figure 8) makes it clear that the leat flows into a long, triangular pond formed where in 1842 a watercourse ran through plot number 213. From this map it appears that the water passed through a sluice (sluices are indicated on the map) and drove a wheel on the east side of the mill, then flowing north to rejoin the Crooked Oak Stream.

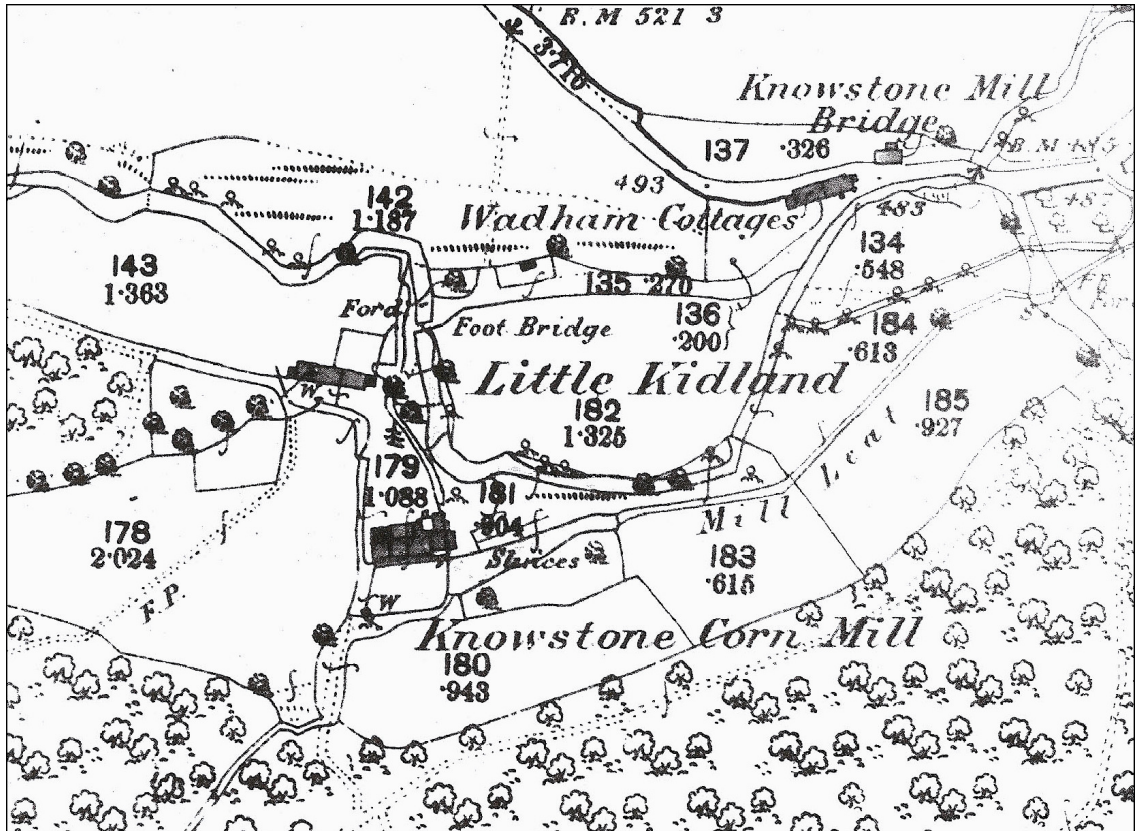


Figure 7: Extract from the Ordnance Survey First Edition map at 1:2500 (sheet 23.9), published 1890 (WCSL).

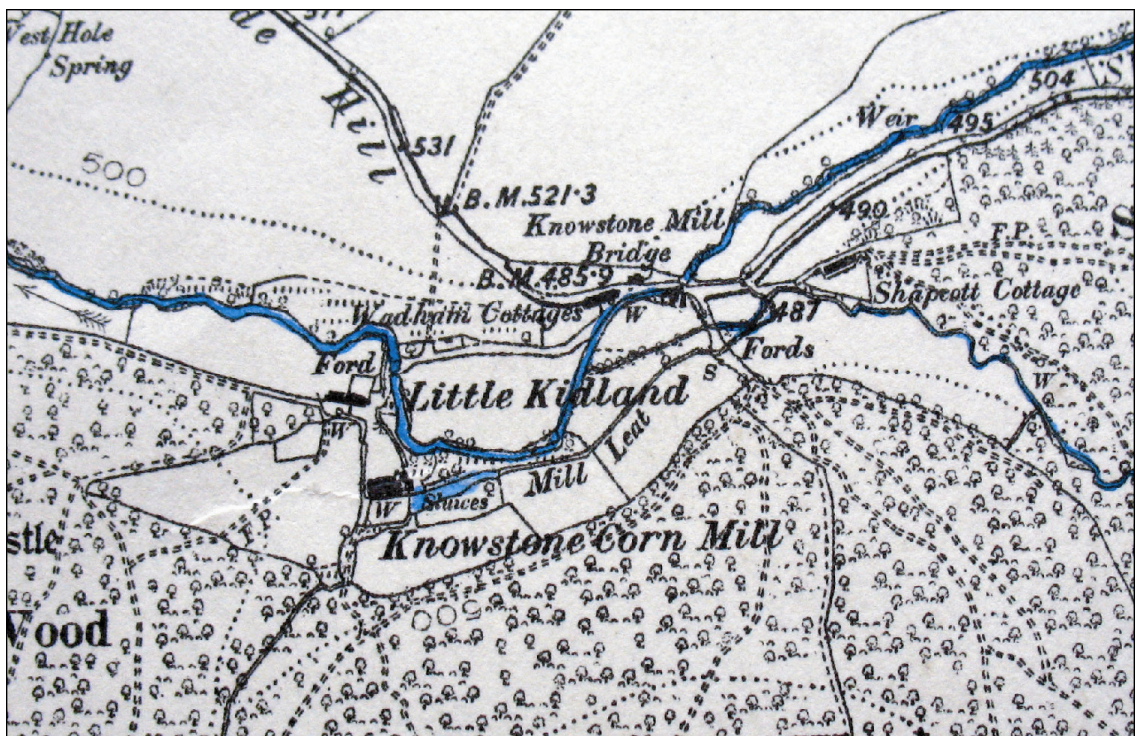


Figure 8: Extract from the Ordnance Survey First Edition map at 1:10000 (sheet 23NW: colour tinted version) published 1890 (NDRO).

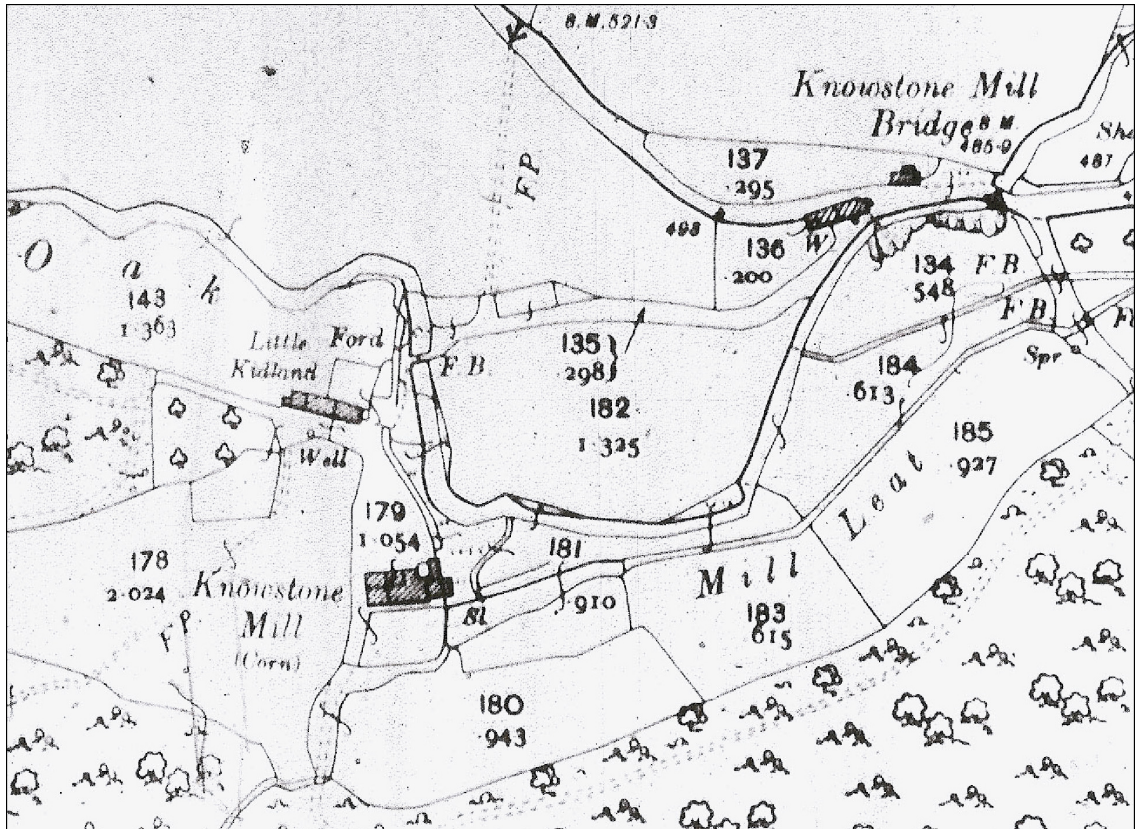


Figure 9: Extract from the Ordnance Survey Second Edition map at 1:2500 (sheet 23.9), published 1904 (WCSL).

## 2.2 Previous studies

In 1989 the North Devon Archaeological Society produced a survey of North Devon watermills, the original survey and record having been made in 1971-5. The record states (pages 43-4):

*The overshot water wheel and the buckets are constructed of wood. The drive wheel may be hidden in the rubbish in the building. There is one pair of millstones in situ and one dismantled. The leat is 4 feet wide by 1 foot 6 inches deep, and is channelled from the Crooked Oak Stream. The building is constructed of stone and cob with a thatched roof in fair condition. The mill house is attached. The iron machinery of this mill, which last worked in 1939, was dismantled at the request of the Government in 1940. A ledger of 1903 to 1934 survives; it includes the charges for cracking and grinding grist and flour. (R.M.1974)*

*The reference to the machinery being removed during World War II is probably correct. It is likely that only the wheel was working until 1972. It was perhaps used for generating or pumping. (R.A. 1989)*

## 3.0 The Building Survey

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### 3.1 General Description

The damage and collapse of the building due to fire (noted to be old and fallen down in 2006 (J. Freeman *pers com*)), and the subsequent clearance of the rubble meant that much of the former historic detail within the buildings had been lost prior to the survey.

The building can be divided into four main units (Figure 2).

Unit 1; the core of the building, formed by a rectangular block of two storeys 16m in length east-west, and 6m north-south. This unit had been thatched and was the part of the building that had been most badly damaged by fire.

Unit 2; presently a single storey pent-roofed lean-to extending 4m from the western end of unit 1.

Unit 3; a lean-to extension against the eastern end of the north wall of Unit 1, 3.5m north-south by 11.5m east-west.

Unit 4; an extension of two stories at the eastern end of unit 1, 11.5m north-south and 5.5m east-west.

Units 3 & 4 are of modern construction and were not subject to detailed recording in this report as no traces of earlier structures were visible within them.



Figure 10: The renovated south elevation of Knowstone Mill, viewed from the south.

### 3.2 Units 1 & 2: Ground Floor

The north, west and east walls of Unit 1 & 2, were of stone rubble construction bonded with a light brown lime mortar to a height of 2.1m (the average ceiling height), above this they were of cob construction. The south elevation was of stone construction to the level of the first floor windows (2.75m), again with cob above. These exterior walls were all 0.8m thick.

The two internal stone walls in Unit 1; abut the exterior north and south walls, rather than being keyed into them. Likewise the western wall of Unit 1 (the division from Unit 2) was seen to abut the northern and southern elevations. This suggests that Unit 2 was part of the original construction, and had subsequently been divided into an externally accessed lean-to.

A wide fireplace (1.8m wide and 1.7m in height), with a bread oven with iron door inset in the rear south corner, is located in the centre of the eastern wall of Unit 1 (Figure 11). There was no evidence that this feature had been a later insertion. The alcove (1.3m north-south and 1m east-west) adjacent to the fireplace in the north-east corner, had latterly housed a winder stair, but was revealed to have a blocked doorway 0.9m wide, predating the stair, which had formerly penetrated the eastern wall of Unit 1.

At the western end of this room and immediately to the left of the front door a staircase of 20<sup>th</sup> century appearance runs in a single flight up to the north to first floor level, enclosed by partition of plain beaded oak panelling.

The ceiling in the eastern room was supported on three beams running north-south. To the west a modern sawn softwood beam, the others of irregular oak, all in fairly poor condition with the central one repaired by half lapping and bolting to a similar member at its northern end.



Figure 11: The fireplace in the eastern room of Unit 1 and the blocked opening in the northern alcove, viewed from the southwest (1m scale).

The dividing wall between this eastern room and the central room of Unit 1 was 0.75m thick with an alcove in the centre of its western face, 1.2m wide extending from 0.3m above floor level to ceiling height. This was of uncertain function, but appeared to have been re-used as a cupboard. The wall separating the central room from the western room is 0.4m thick, with a central chimney stack 1.6m north-south by 1.5m east-west. This stack had fireplace openings 1.2m wide into both the central and western rooms of Unit 1.

The existing opening in the north wall of the western room may not have been original, but any evidence to confirm this had been destroyed by modern alteration. The western wall (dividing Units 1 and 2), on demolition was found to be 0.6m thick, with a blocked opening in the form of a double sized door with surviving timber lintel and a post on its western side. The lintel was of roughly hewn square roundwood with mortices cut in its upper and lower faces, and one forked end suggesting that it may have formerly served as an upright in a stall. Removal of the blocking within this opening revealed a well faced stone jamb on the south side.

Unit 2 lying to the west of Unit 1 was of a single storey with a door in its western wall. Its floor was of cobbles, sloping gently to a central cobbled gully running east-west to the south side of the doorway.

The window openings were variable but typically 19th century in appearance (see Figure 10). Two windows on either side of the modern front door were atypical, being only 0.5m wide, and with internal openings that extended to a full 1.84m in height.

### 3.3 Units 1 & 2: First Floor

Little information was gained from the study of the partially demolished cob walls of the upper storey. One of the few features of note was the presence of a 1m wide doorway, crudely blocked with timber and cob, that was internally visible in the north wall towards the eastern end of Unit 1. From the exterior this feature was obscured by the surviving roof of Unit 3, but it suggests the former existence of a structure with an upper floor to the north-east of Unit 1. This may be evidenced by the L-shaped layout for the building visible on the 1842 tithe map (Figure 6).

The western chimney stack was of two builds. The lower part of the stack surviving at ground floor and for half of the first floor level being of stone construction with the upper portion (an extension?) in red brick. The eastern stack is of much larger proportions and was entirely of a stone construction. Its upper portion showed signs of alteration and was crudely stepped in for its upper 2.5m. Surviving flashing demonstrated that the stack had been slightly offset, with its majority penetrating the south side of the roof's ridge.





Figure 12: The eastern stack with surviving flashing, viewed from the west.

No structural evidence for any mill equipment, fittings or machinery was evident. Presumably this had been housed in the building (shown on the maps) to the east of the main range (Figures 4-9), where the mill leat appears to have run down from the pond before being infilled during 20<sup>th</sup> century building works undertaken during the construction of the extension forming Unit 4.

## 4.0 Archaeological Monitoring

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### 4.1 Summary

Archaeological monitoring was undertaken during various stages of the renovation work, and any details relating to the historic fabric of the building are included within the descriptions above. The only archaeological deposits which were disturbed by the renovations were during the removal of the cobbled floor (101) within Unit 2 (Figure 13).



Figure 13: Cobbled floor (101) viewed from the south (1m scale).

### 4.2 Cobbled Floor

The layer beneath that in which the cobbles were set was a beige-brown compact clay (103). This was the formation level of the proposed development and was therefore not fully excavated. Two post-medieval sherds and several brick fragments were found within this layer, suggesting the existence of an earlier surface.

Running east-west, bisecting the cobbled floor but integral to it, was a cobbled gulley [105]. This cut a north-south orientated wall {106} which had been previously removed. A few foundation stones of this wall remained and it was evident that the wall sat in a shallow trench, that cut into the natural shillet (107). Beneath the gulley (where it adjoined the wall) there were traces of a shallow drain [108] which clearly ran under the wall. No finds were made from the mid-brown silty-clay fill (104) of this drain.

The material in which the cobbles were set (102) consisted of a friable, mid to dark brown clay. Finds in this deposit included 19<sup>th</sup>-20<sup>th</sup> century ceramics and a corroded coin (possibly a farthing?) which indicate that the cobbles were laid (or re-laid) in the recent past. Silver paper was also found and whilst this may be intrusive (having worked its way down through the interstices) it may equally suggest a relatively modern date for the floor.

The cobbles (101) themselves were set to between 80 and 150mm depth (Figure 14). They were mostly sub-rectangular and were set along their long axis. Prior to removal, the cobbles in the southwest corner appeared to be of a slightly different pattern, set in a beige clay. However the underlying part of the layer (102) was fairly consistent throughout and it may be that this part of the floor suggests more than one person involved in setting, rather than a residual part of an earlier floor.



Figure 14: Cobbles (101) and drain in Unit 2, viewed from the east (1m scale).

## 5.0 Development and Phasing

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### 5.1 Broad Phasing

The examination and recording of the fabric during restoration provided opportunity for a greater understanding of the sequence building's development. It was apparent that the part of the building that was of historical and architectural interest was the central two storey block; Unit 1, and Unit 2 to its west. The single storey extension to the north (Unit 3) appeared to be of early 20<sup>th</sup> century date and the two storey extension (Unit 4) at the eastern end of Unit 1 was of 1960s-1970s construction (Figure 15).

### 5.2 Phase 1

The outer walls of Unit 1 & 2, the roofline at this time is uncertain but it seems likely that the roof was lower, with a loft space rather than a first floor. Unit 2 was not a lean-to extension but part of the original one roomed building. The loft space was accessed by a loading door in the north wall (blocked door on first floor), which may have had an external stair. The eastern fireplace and stack appears to have been part of this initial phase.

### 5.3 Phase 2

Internal subdivision of the main range (Units 1 and 2) into 2 parts, perhaps accessed by two doors in the south elevation that later become windows. The western end may have been serving as outbuildings at this time, with the eastern end, domestic? During this phase there was also the creation of rooms at first floor level, which were accessed by stair at the eastern end of Unit 1 adjacent to fireplace, which blocked a former opening in this eastern elevation.

### 5.4 Phase 3

Two internal divisions were inserted in the main range, thereby creating Unit 2, and the western room of Unit 1. The western chimney stack was added at this time, which along with the insertion of a central stair and the single front door suggest an extension of the living accommodation at this time. Windows were inserted into the former doorways in the south elevation at this time.

### 5.5 Phase 4

Further alterations occurred in the 20<sup>th</sup> century with Unit 3 constructed to the north of the main range in the early 20<sup>th</sup> century, possibly replacing an earlier structure.

In the later 20<sup>th</sup> century Unit 4 was added to the east of the range, and appears to have replaced much of the former mill workings.

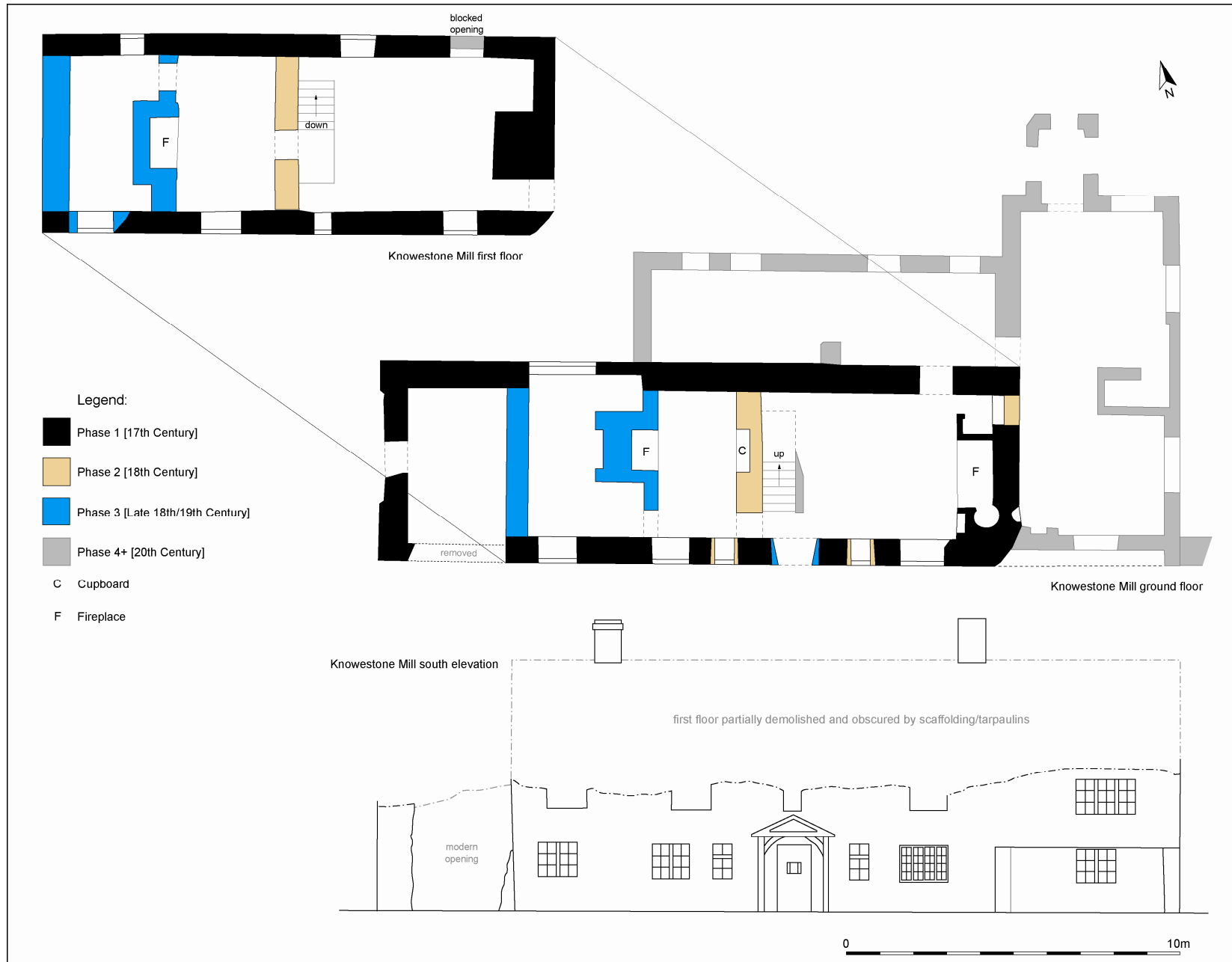


Figure 15: Phased plan of the buildings.

## 6.0 Discussion and Conclusion

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The devastating fire at Knowstone Mill and the clearance of the site which followed had robbed the buildings of much of their historic fabric, but several key hints at the development of the buildings were evident:

1. The external walls of Units 1 and 2 are of comparable thickness and continuous build, whereas the internal divisions are all thinner and inserted. This suggests that Units 1 and 2 were originally one structure, perhaps with a common roof structure that later became altered, creating the appearance of a separate single storied lean-to.
2. The structure of the western of the two chimney stacks clearly indicates that the form of the western end of the roof at the time of the fire, consisted of a half-hipped gable end above the roof of the western lean-to (Unit 2), but this was not original. It was clear that originally the chimney had passed through a lower roof, probably the eaves of a half-hipped gable in a more easterly position than latterly. The crudely stepped arrangement of the upper portion of the eastern stack suggest some alteration to the roof arrangements, but offers no clue as to what form earlier structures may have taken.
3. The openings in the exterior walls suggest use and arrangements other than the present. The blocked first floor doorway in the north wall suggests a loft loading door. The two ground floor 0.5m wide windows in the south elevation, flanking the present doorway may have been a pair of doors, perhaps predating the present front door, possibly suggesting that the building had been divided into two properties in the past.

## 7.0 Bibliography & References

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- Soil Survey of England and Wales** 1983: *Legend for the 1:250,000 Soil Map of England and Wales (a brief explanation of the constituent soil associations)*.

### Unpublished Sources:

**Devon Record Office:**

Knowstone tithe map

**North Devon Record Office:**

Ordnance Survey First Edition map at 1:10000 (sheet 23NW: colour tinted version).

**West Country Studies Library:**

Ordnance Survey Surveyor's Draft map  
Old Series Ordnance Survey at one inch to the mile  
Ordnance Survey First Edition map at 1:2500 (sheet 23.9)  
Ordnance Survey Second Edition map at 1:2500 (sheet 23.9)

**Devon County Historic Environment Service:**

No. 21342: Knowstone Mill

## Appendix 1

### WRITTEN SCHEME OF INVESTIGATION FOR THE ARCHAEOLOGICAL RECORDING AT THE MILL, KNOWSTONE, SOUTH MOLTON, DEVON

**Location:** Knowstone Mill, Knowstone, South Molton, Devon  
**NGR:** SS 81192318  
**District:** North Devon  
**Planning App Nos:** 41414 & 41415

- 1.1 This document has been produced by South West Archaeology (SWARCH) at the request of Mr Wynne-Evans (the Client) and sets out the methodology for phase 2 of archaeological recording to be undertaken prior and during the repair works to Knowstone Mill. It conforms to the specifications laid out in a letter from the Devon County Council Historic Environment Service (DCHES) to the Planning Authority.
- 1.2 The principal objective of the recording project will be to produce a record of the Mill as it has survived into 2006 and to record any archaeological evidence for the site that may be exposed during the repair and alteration works. This would apply to both above-ground architectural evidence and below-ground evidence in the form of archaeological deposits or features.
- 1.3 The work is to be carried out to satisfy the conditions of planning permission covered by PPG16 (paragraph 30).
- 2.0 ARCHAEOLOGICAL BACKGROUND
- 2.1 The Mill - Knowstone Mill is a Grade II listed building and probably dates from the late 17th century, though had been considerably altered in the 20th century. It was extensively damaged by fire and it was considered possible that the proposed construction works for the rebuilding of this structure would expose fabric of earlier phases of the structure. It was also possible that groundworks may also expose artefacts or archaeological deposits or features associated with the post-medieval building or earlier structures that may have existed on the site.
- 2.2 An assessment of the cartographic evidence for the site was made by SWARCH to ascertain if there was any map evidence that refers to the building that will contribute to the understanding of the history of the structure.
- 2.3 An initial inspection of the standing building was undertaken by SWARCH. This revealed a structure potentially of several phases of build with several changes in the plan layout (e.g. the insertion of a chimney stack, blocked openings etc.). The building is known as Knowstone Mill however evidence for this function did not appear obvious nor did the layout of the building appear to conform to other standard layouts (i.e. a 3 cell cross-passage house). As much of the internal and external wall coverings were damaged in the fire and would be removed as part of the rebuild an opportunity to gain a more thorough understanding of the development of the building was presented.  
 It was therefore suggested that features (blocked openings, inserted walls etc.) were recorded (based on plans supplied by the client) as they are revealed during the rebuild process with the aim of gaining an understanding of the development and the function of the building. This was to be conducted to English Heritage Level 2 (Understanding Historic Buildings: A guide to good recording practice) as specified below.
- 2.4 Monitoring and Recording Work already Undertaken (Phase 1)  
 Some initial recording work and monitoring of groundwork took place once dangerous rubble was removed and scaffolding was in place. This has been referred to as phase 1 of the project. This phase has included the monitoring by watching brief of the demolition of the most westerly internal wall and the removal of the internal cobbled floor within the western end of the building. A drawn and photographic record was made of both floor and wall.  
 Also included in phase 1 was a detailed inspection and initial recording of the remainder of the existing structure including wall tops and openings to identify those areas that would warrant further monitoring and recording as building works proceeded.
- 3.0 AIMS OF PHASE 2  
 The principal elements of phase 2 of the project will include:
- 3.1 The completion of a drawn, photographic and written description of the exterior and interior of the building as it currently stands. The drawn record will include elements of the building that are to be removed or altered as part of the conversion work.
- 3.2 The recording of any historic fabric and other relevant detail revealed during alterations or refurbishment to the built structure (see 4) and during any intrusive groundworks (see 5).
- 4.0 THE BUILDING RECORDING
- 4.1 An archaeological record the building will be undertaken with the aim of understanding the phasing of each element of the structure, identifying and recording any repairs etc. This will focus on the identification of features such as blocked / forced openings and inserted walls that aid with understanding the sequence of the building's development.  
 This would be based on English Heritage Level 2 (Understanding Historic Buildings: A guide to good recording practice) guidelines and consist of:
- 4.1.1 A written description and analysis of the structures including evidence for different periods of build;



- 4.1.2 A Black and White film and digital photographic record of the building. This would be undertaken before repairs start and during the repair process if more information is uncovered;
- 4.1.3 A drawn record of the building. This will be based on architects drawings supplied by the client, where these are of sufficient quality and accuracy. Areas of the structure that are to be removed or substantially altered and not covered in the architects drawings will be drawn to scale prior to any alterations taking place using the method stated below (7.0).
- 5.0 THE ARCHAEOLOGICAL WATCHING BRIEF
- 5.1 An archaeological watching brief will be carried out during all intrusive groundworks including the removal of existing floors and surfaces, and alterations to the building. This will be undertaken in accordance with the Institute of Field Archaeologists Standard and Guidance for an Archaeological Watching Brief (revised 1995).
- 5.1.1 All service trenches and intrusive groundworks, are to be excavated, where practicable, using a machine with a toothless, grading bucket to the depth of undisturbed *in situ* weathered subsoil, to the upper surface of *in situ* archaeological deposits or to a depth that will not be affected by the development (assuming the latter is known) – whichever is highest.
- 5.1.2 The machining will be undertaken under the direct control of the site archaeologist. Upon completion of the machining the trench sides and base will be examined by the site archaeologist for the identification of features and soil marks and the recovery of artefacts. Where necessary to clarify features and soil marks the base and/or sides of the trench will be cleaned by hand. The examination will be undertaken before the exposed level is affected by weathering and before plant and machinery is driven over it. Any features will then be cleaned, excavated by hand and recorded to IFA guidelines.
- 5.1.3 The full depth of archaeological deposits will be assessed. This need not require excavation to *in situ* subsoil if it is clear that complex and deep stratigraphy will be encountered. If complex or extensive archaeological deposits are exposed then the DCHES will be consulted as to the appropriate level of investigation required at this stage of the scheme.
- 5.1.4 If archaeological features are exposed, then *as a minimum*:
- i) small discrete features will be fully excavated
  - ii) larger discrete features will be half-sectioned (50% excavated)
  - iii) long linear features will be excavated to sample 20% of their length - with investigative excavations distributed along the exposed length of any such feature.
- Whether any further excavation is required will be confirmed with the Historic Environment Officer of Plymouth City Council
- 5.1.5 In the unlikely event of any human remains being found on this site they will be dealt with in accordance to procedures in published guidance (McKinley and Roberts 1993 (IFA technical paper no. 13) and EH/CofE 2005 (Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England). SWARCH will advise the client as to obtaining the necessary Licence from the Dept of Constitutional Affairs. Where necessary, SWARCH will consult with an appropriate specialist
- 5.1.6 Should suitable deposits be exposed then consideration should be made for scientific assessment/analysis/dating techniques that could be applied to further understand their nature/date and to establish appropriate sampling procedures. The project will be organised so that specialist consultants who might be required to conserve or report on other aspects of the investigations can be called upon.
- 5.1.7 Spoil will be examined for the recovery of artefacts
- 5.2 Health and Safety requirements will be observed at all times by any archaeological staff working on site, particularly when working with machinery. Appropriate PPE will be worn at all times, at a minimum this will include: high-visibility jackets, safety helmets and protective footwear. The site archaeologist will undertake any site safety induction provided by the Client.
- 5.3 If the depth of trenching exceeds 1.2m the trench sides will need to be shored or stepped to enable the archaeologist to examine and if appropriate record the section of the trench. The provision of such measures will be the responsibility of the client.
- 6.0 ARCHAEOLOGICAL RECORDING
- This will be based on IFA guidelines and those advised by DCHES and will consist of:
- 6.1 A written record utilizing standardised single context recording sheets, survey drawings in plan, section and profile at scales of 1:10, 1:20, 1: 50 and 1:100 as appropriate, and B/W and digital photography.
- 6.2 Survey and location of trenches and archaeological features.
- 6.3 Labelling and bagging of finds on site. Post-1800 unstratified pottery may be discarded on site after a representative sample has been retained.
- 7.0 MITIGATION
- 7.1 This brief covers Stage I of the archaeological investigation of the site however, further archaeological intervention may be required if complex deposits or features are exposed that are considered by the DCHES to be archaeologically significant. Further work could take the form of:
- 7.1.1 Further more detailed investigation and recording of structures, deposits and features.
- 7.1.2 An archaeological watching brief, undertaken during any intrusive works associated with the repair work not as yet identified.

- 7.2 The need for further works will be decided in consultation between the archaeological contractor, the DCHES and the client once the result of the above investigation and recording are known, and will be the subject of a separate brief.
- 7.3 The development may be delayed until the need for any further archaeological intervention has been established.
- 8.0 ARCHIVE AND REPORT
- 8.1 An ordered and integrated site archive will be prepared in accordance with The Management of Archaeological Projects (English Heritage, 1991 2nd edition) upon completion of the entire project.  
This will include relevant correspondence together with context sheets, field drawings, environmental, artefactual and photographic records. The archive and finds will be deposited with North Devon Museum, Barnstaple, upon publication of the site, or, if this is not required, upon production of the summary report or County HER entry, or, where the museum is unable to accept it at the time, at a subsequent date to be agreed with the Museum and the DCHES. Any guidelines provided by the Museum, will be followed. The archive will be logged using the accession number of NDDMS 2006.102 provided by North Devon Museum, Barnstaple.
- 8.2 A summary report on the project must be produced. This should fully describe the work done and the results obtained. Details of styles and format are to be determined by the contractor, but it is expected that the report should include:
- 8.2.1 A Summary
  - 8.2.1 A brief description of the background to the project
  - 8.2.3 A brief description of the approach to the work and methodologies employed
  - 8.2.4 A full description of the results and information obtained, illustrated as necessary
  - 8.2.5 A concluding discussion will be required to provide an assessment of the importance and value of the building and any archaeological deposits or features revealed.
- 8.3 A draft copy of the report should be supplied to the DCHES for comment as soon as possible after the close of fieldwork. Two copies of the final report will be required.
- 8.4 Should the results of this work merit it they will be published in an appropriate academic journal. If required, after the production of a summary report, a programme and timetable for this will be submitted to DCHES and the Client for approval.
- 8.5 A copy of the report detailing the results of these investigations will be submitted to the OASIS (Online Access to the Index of Archaeological Investigations) database.

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## Appendix 2

Extracts from the Knowstone tithes apportionment 1841.

<b>Number</b>	<b>Name of Holding</b>	<b>Owner</b>	<b>Occupier</b>	<b>Description</b>
212	Knowstone Mills	Sir Robert George Throckmorton	John Snow	Little Plot
213				Orchard
214				House, Waste and Mills
221				Little Plot
223				Plot
224				Orchards
226				Great Meadow
215	Little Kidland	Earl Egremont and Earl Ilchester	Thomas Heller	Meadow
216				Garden
217				Orchard
218				House and Court
220				Higher Meadow
245				Plot
222	Wood End	Sir Robert George Throckmorton	Richard Courtney	Orchard
225				Garden
241	Great Wadham	Earl Egremont and Earl Ilchester	Richard Courtney	Orchard
244				Orchards

## Appendix 3

### Text of English Heritage Listing Documents:



(Photo R.Downes 2002)

English Heritage IoE number: 97367

Grade II

KNOWSTONE SS 82 SW 3/16 Knowstone Mill - - II House. Probably late C17, much remodelled in C20. Rendered stone rubble and cob. Thatch roof, half-hipped at left end, gable end to right. 2 axial stacks, one brick, one stone rubble. Plan: entirely altered in C20 and now consisting of 4 rooms in line, with direct entry into second room from left and staircases to rear left-hand corner and besides stack to third room from left. The original plan appears to have consisted of the 2 central rooms, the larger hall/kitchen to right. The left end room appears to have been added in the late C18 or early C19, and the right end room in C20. Large continuous outshuts to rear. Exterior: 2 storeys. 5-window range. C20 fenestration, 2 light casements, except for a C18 3-light to left and a 3-light above a 4-light window to right of doorway, all with rectangular leaded panes. These may be reused or reset. Plank door has gabled corrugated iron canopy. Leanto at left end. Interior: much altered in C20, with some reused C18 and C19 fabric brought from elsewhere. Large chamfered cross ceiling beam to hall/kitchen. Panelled door to cupboard to right of fireplace. Panelled window seat to smaller room which also has panelled doors to wall cupboard. Old 3 plank door to chamber at head of principal stairs.

## Appendix 4

Extract from the text of the Devon County Historic Environment Records.

**No. 21342**  
**(SS82SW/61)**

Form: Building - extant  
District: North Devon District Class: Industrial  
Type: WATERMILL  
NGR: SS8119423186  
Historic Parish: KNOWSTONE  
OS Map: SS82SW  
Civil Parish: Knowstone  
Broad Period: Post Medieval  
Listed Building Grade: Grade II  
Period: Modern, Post-medieval, XVII, XX

### Summary:

Knowstone Mill probably dates back to the 17th century although the house was much altered in the 20th century. Much of the machinery was apparently removed during the Second World War, but the wooden overshot wheel continued to work until 1972 when the mill was destroyed by a lightning strike. Only the leat and millpond remain today.

21342 Knowstone Mill Listed Building

### Description:

Knowstone Mill. 17th century mill. Building of cob and plastered rubble. Thatched roof and brick stacks. Two storeys. All machinery removed. Mill worked until 1972 when a lightning strike destroyed it. (Devon County Council 1974). 17th century small house. End brick and rubble stacks. Casements, some with leaded lights. Kitchen has exposed ceiling beams and joists and open fireplace. (DoE 1964). House: probably late 17th century, much remodelled in 20th century. Rendered stone rubble and cob. Thatch roof, half hipped at left end, gable end to right. Two axial stacks, one brick, one stone rubble. Plan: entirely altered in 20th century and now consisting of four rooms in line, with direct entry into second room from left and staircases to rear left-hand corner and besides stack to third room from left. The original plan appears to have consisted of the two central rooms, the larger hall/kitchen to right. The left end room appears to have been added in the late 18th or early 19th century, and the right end room in the 20th century. Large continuous outshuts to rear. Exterior: two storeys. Five-window range. 20th century fenestration, two light casements, except for an 18th century three-light to left and a three-light above a four-light window to right of doorway, all with rectangular leaded panes. These may be reused or reset. Plank door has gabled corrugated iron canopy. Lean-to at left end. Interior: much altered in 20th century, with some reused 18th and 19th century fabric brought from elsewhere. Large chamfered cross ceiling beam to hall/kitchen. Panelled door to cupboard to right of fireplace. Panelled window seat to smaller room which also has panelled doors to wall cupboard. Old three plank door to chamber at head of principal stairs. (DoE 1987) The overshot waterwheel and buckets are constructed of wood. The drive wheel may be hidden in the rubbish in the building. There is one pair of millstones in situ and one dismantled. The leat is 4ft wide by 1ft 6in deep, and is channelled from the crooked oak stream. The building is constructed of stone and cob with a thatched roof, in fair condition. The mill house is attached. The iron machinery of this mill, which last worked in 1939, was dismantled at the request of the government in 1940. A ledger of 1903 to 1934 survives; it includes the charges for cracking and grinding grist and flour. The reference to the machinery being removed during World War II is probably correct. It is likely that only the wheel was working until 1972. It was perhaps used for generating or pumping. (North Devon Archaeological Society 1989). 'Knowstone Corn Mill' marked on 1880-s1890s first edition 25 inch Ordnance Survey map. The 'Mill Leat' runs into a millpond situated off the south east corner of the mill. (Ordnance Survey 1880s-1890s)

*North Devon Watermills* 1989: (North Devon Archaeological Society) 43-44

*Water-Powered Sites in Devon* 1998: Bodman, M. 35.97

*Watermills and Other Water-Powered Sites in Devon* 2003: Bodman, M. 251

*Watermills in North Devon* 1994 1995: University of the Third Age, 68.

Devon County Council Report: *Survey of Watermills in Devon*: Gazetteer 1974, (Devon County Council)

Historic Houses Register: Knowstone 1964 (DoE) 39.

First Edition Ordnance Survey 25 inch Map, 1880s-1890s: Ordnance Survey.

## Appendix 5

## List of Jpegs on CD-Rom to the rear of this report

<i>Photo Number</i>	<i>Description</i>	<i>From</i>	<i>Scale</i>
01	Blocked opening in wall between Units 1 and 2	West	1m
02	Wall between Units 1 and 2	"	"
03	As above	"	"
04	Remnants of 1 <sup>st</sup> floor with chimney stacks	"	-
05	As above	"	-
06	Cobbled floor in Unit 2	"	1m
07	Detail above blocked opening in wall between Units 1 and 2	"	0.3m
08	Blocked opening in wall between Units 1 and 2	East	1m
09	Blocked opening in eastern elevation of Unit 1	West	"
10	As above	"	"
11	Eastern chimney stack	"	-
12	Detail of window	South	-
13	Eastern chimney stack and door	East	-
14	As above	West	-
15	Western chimney stack	East	-
16	Scar of former roofline on western stack	"	-
17	As above	"	-
18	Detail on loose timber	-	-
19	As above	-	-
20	Detail of joist socket in Unit 1	South	-
21	As above	"	-
22	Lion decoration on plaster in Unit 1	-	-
23	Western ground floor fireplace	East	-
24	As above	"	-
25	Detail on pillar in the garden	"	-
26	Detail of infill to the western most window in the southern elevation	North	-
27	As above	"	-
28	Cobbles (101) partly removed	East	1m
29	As above	"	"
30	Cobbles in SW corner; slightly different build?	"	"
31	Cobbles (101) partly removed	"	"
32	Base of N/S wall showing drain cutting it; close up, cleaned.	West	0.5m



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