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Job No. 20578

'BEAUCHAMPS'

WYDDLAL,

HERTS SG9 0EP

REPORT

ON

STRUCTURAL INSPECTION

Directors : I. Devonshire BSc (Hons), CEng, M.I.C.E. M.P. Lambert BEng (Hons) CEng, M.I. Struct. E.
Registered No. 1311947. A division of Roger Carlton (Structures) Ltd
V.A.T. Registered No. 479 8841 70



*The Institution
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28th. March 2019

Our Ref : ID / 20578

Mr. R. Forsyth,
'Beauchamps',
Wyddial,
Herts. SG9 OEP.

Dear Mr. Forsyth,

Re : Structural Inspection of Barn & attached cottage in the grounds of Beauchamps, Wyddial, Nr. Buntingford, Herts. SG9 OEP.

1.0 Introduction

- 1.01 In accordance with your instructions, we visited this property on the 28th. March 2019.
- 1.02 The purpose of our visit was to carry out a structural inspection with particular regard to the existing structural condition of the Barn and the attached cottage and also looking at their future viability.

2.0 Description of Property

- 2.01 The property is located within the grounds and at the rear of Beauchamps, Wyddial, which is near Buntingford in Hertfordshire.
- 2.02 The barn is a timber framed traditional barn, which has many new timbers and is covered in a corrugated sheeting roof.
- 2.03 The cottage is two storey and was converted from the end of the barn in the 1890's. This cottage is attached to the barn, is two storey and has plain Clay tiles on the roof. This building (Barn & Cottage) is situated on ground of a relatively level nature.

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- 2.04 The Cottage is also timber framed, with weatherboarding externally. There is a brick chimney within the cottage.
- 2.05 There are not any significant trees close to this building.

3.0 Inspection

- 3.01 Upon inspection, we saw that the foundations to this building are brick spread footings and are very shallow (100mm. to 200mm. deep).
- 3.02 There is a 30 metre deep well very close to the North-East corner of the barn.
- 3.03 The timber trusses within the barn appear to be constructed with fairly new machine cut timbers, so we do not know whether these are more recent additions. They do not seem to be consistent with the age of the barn.
- 3.04 At the junction of the barn with the cottage there is a section of timber boarding on the inside of the roof and plain Clay tiles externally. There is also a section of modern brickwork between the end of the barn and the cottage. We are unsure as to the purpose of this brickwork, but it might be the dividing partition wall.
- 3.05 The cottage has several areas of damp on the internal plaster surfaces. There are several damp patches around the inner plaster surface of the chimney. We understand that Roofing Contractors have carried out lots of remedial works to the roof and the flashings around the chimney, but this work has not solved the damp problem. The kitchen also suffers from large amounts of condensation.
- 3.06 The external walls to the cottage are 100mm. timber studwork, boarded externally, which means that this cottage is very cold, as there is little or no insulation. The heating is electric as there is no gas supply and no Oil tank, for alternative methods of heating.
- 3.07 There are fine cracks at high level and also above the skirting boards.
- 3.08 The Entrance Porch is coming away from the cottage walls, evidenced by fine cracking.
- 3.09 At the top of the staircase there is very low head height. If the stairs were moved this would compromise the bedroom size. The bedrooms on the first floor are fairly small rooms without the staircase being relocated.
- 3.10 Photographs of the above mentioned details are enclosed within the appendix to this report.

4.0 Conclusions & Recommendations

- 4.01 From our inspection of this property, we can confirm that the existing barn has been used for domestic storage. If it were to be converted, this would always be a

compromise, as the barn would be very energy inefficient. Structurally, this building has very shallow foundations which is the cause of a lot of the cracking observed.

4.02 We would recommend that the building (both the barn and the cottage) are re-built on the same footprint to modern standards with 1.00metre deep foundations and insulated to modern standards. The foundations near the well may need to be much deeper with ground beams to avoid loading the walls of the well. The heating could come from Thermal Slate roofing, Solar Panels and a Ground source heat pump, which could make this new domestic property extremely energy efficient. If required, some of the existing timbers could be re-used.

4.03 Should you require any clarification of any points in this report, or further information or assistance, please do not hesitate to contact the writer.

Yours Sincere

Ian Devonsh

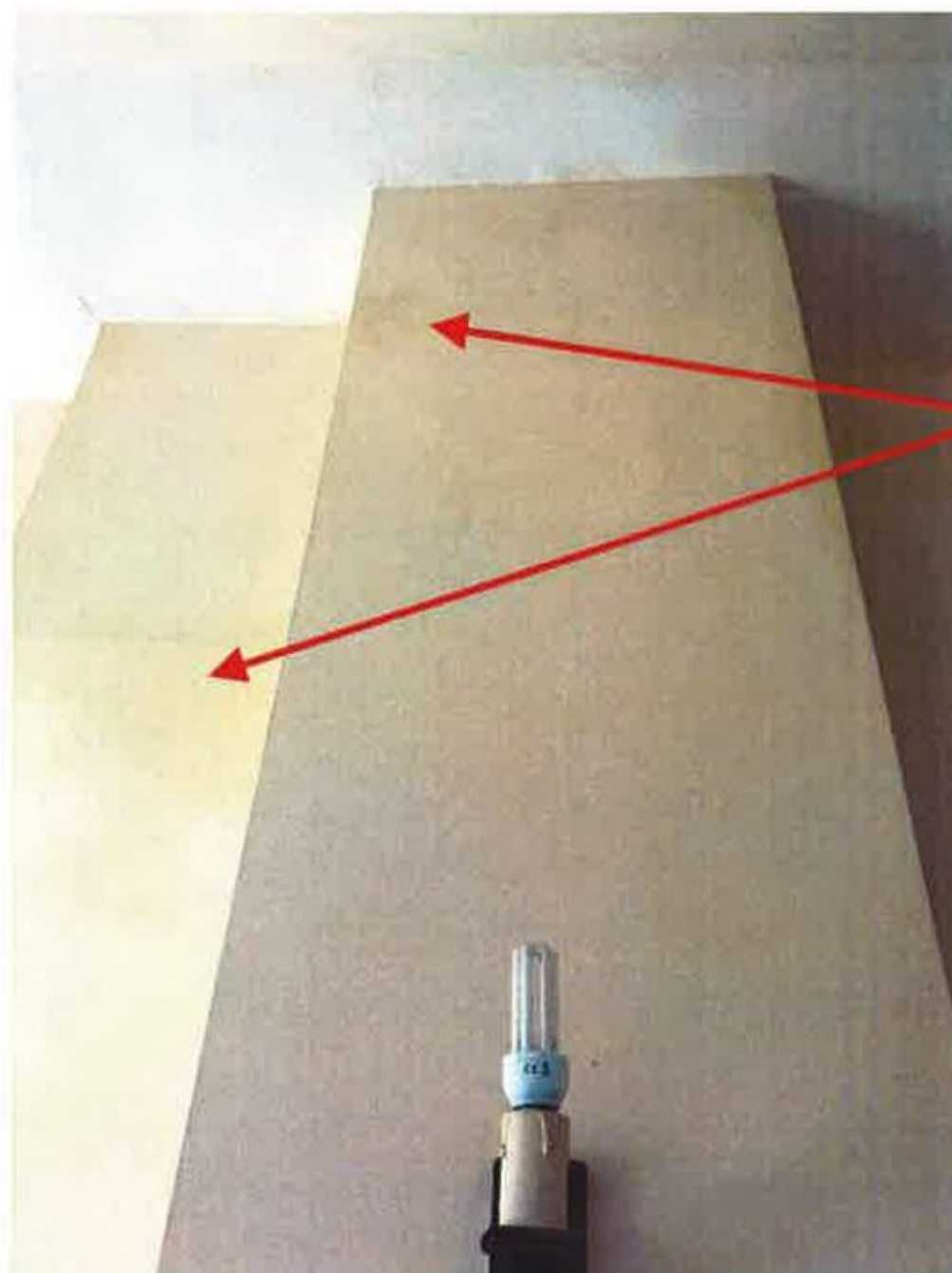


APPENDIX 'A' – PHOTOGRAPHS

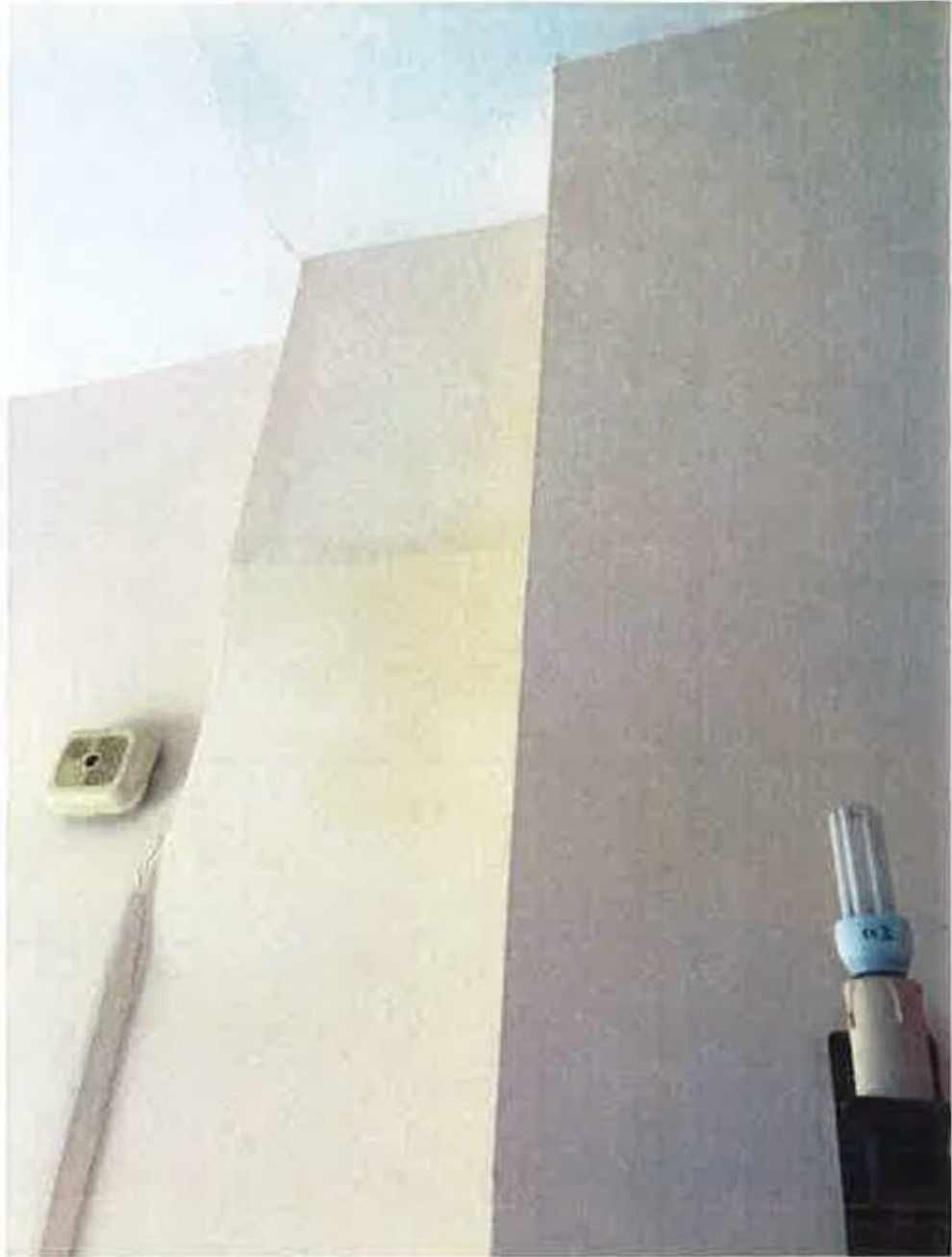


Cottage

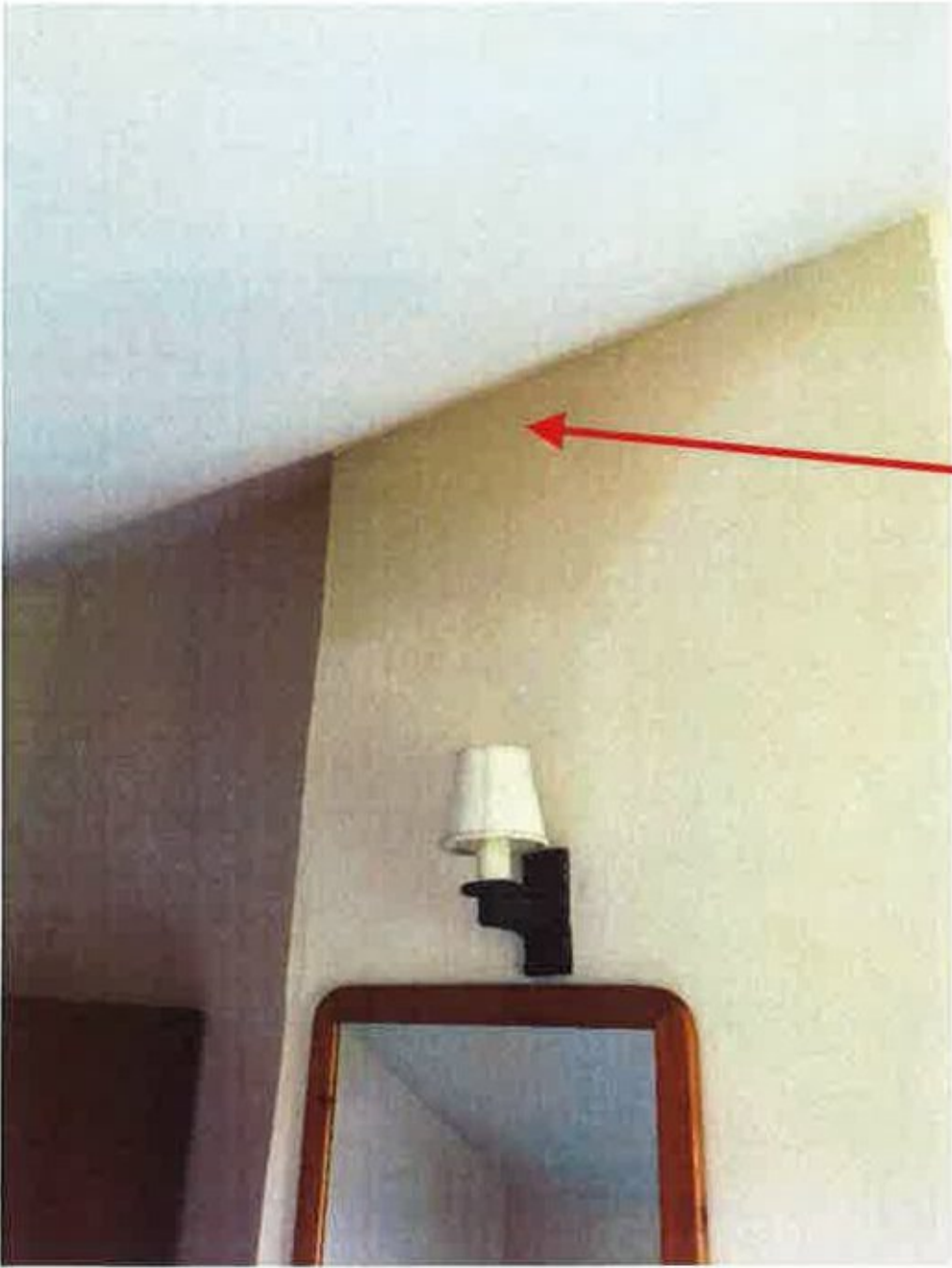
Cracking at high level.



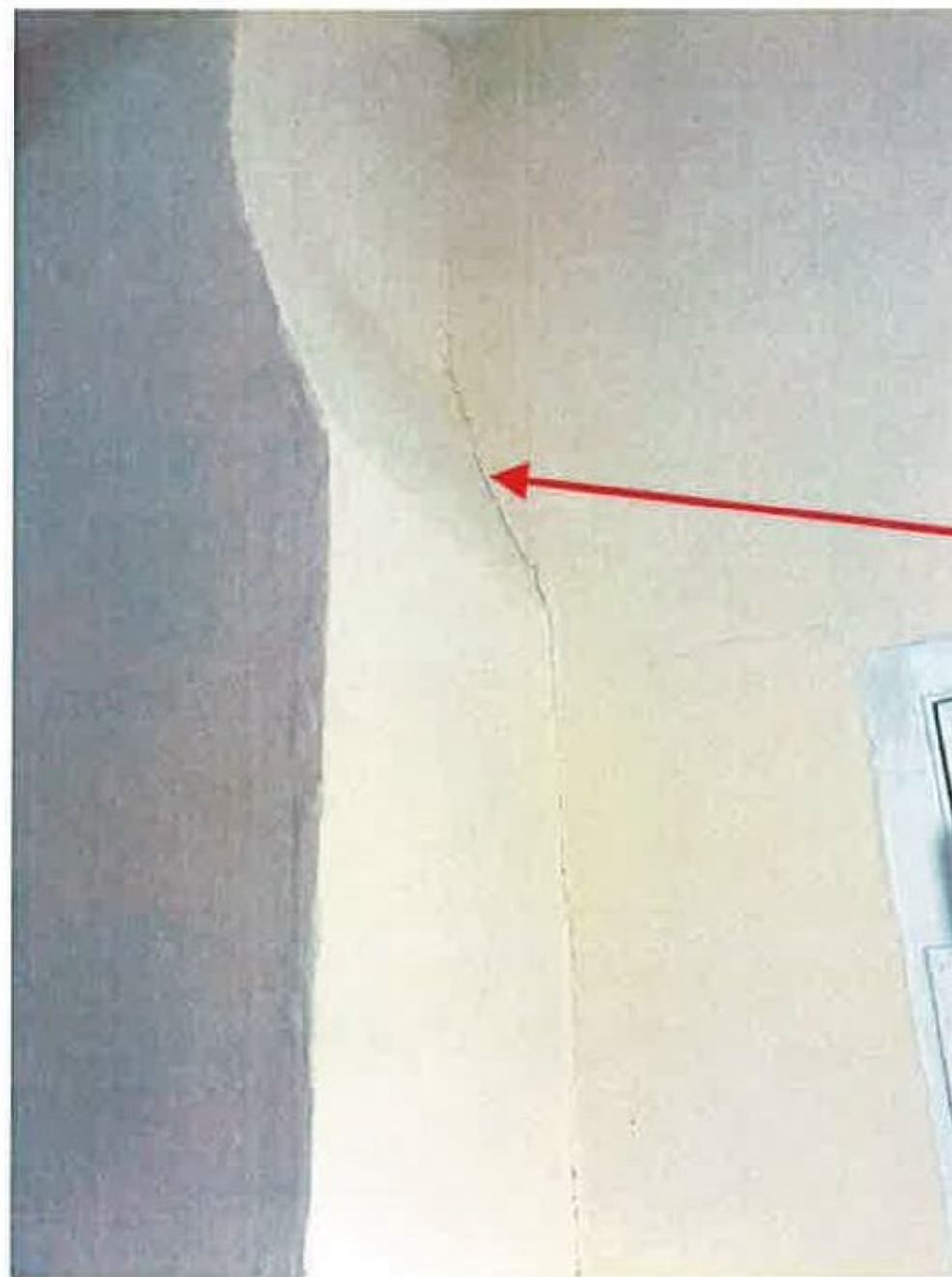
Damp on internal face of chimney.



Damp on internal face of chimney.



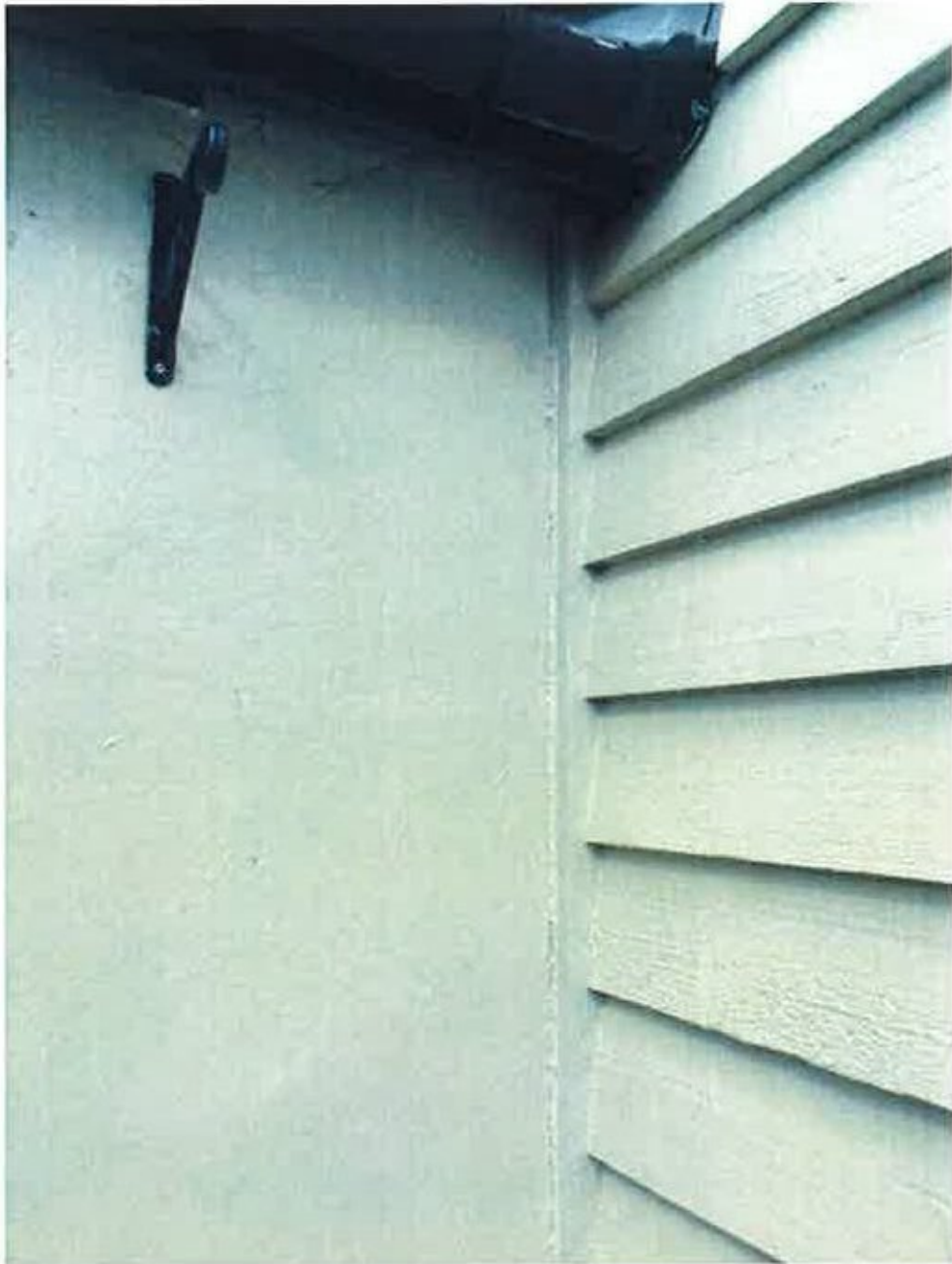
Damp on internal face of chimney.



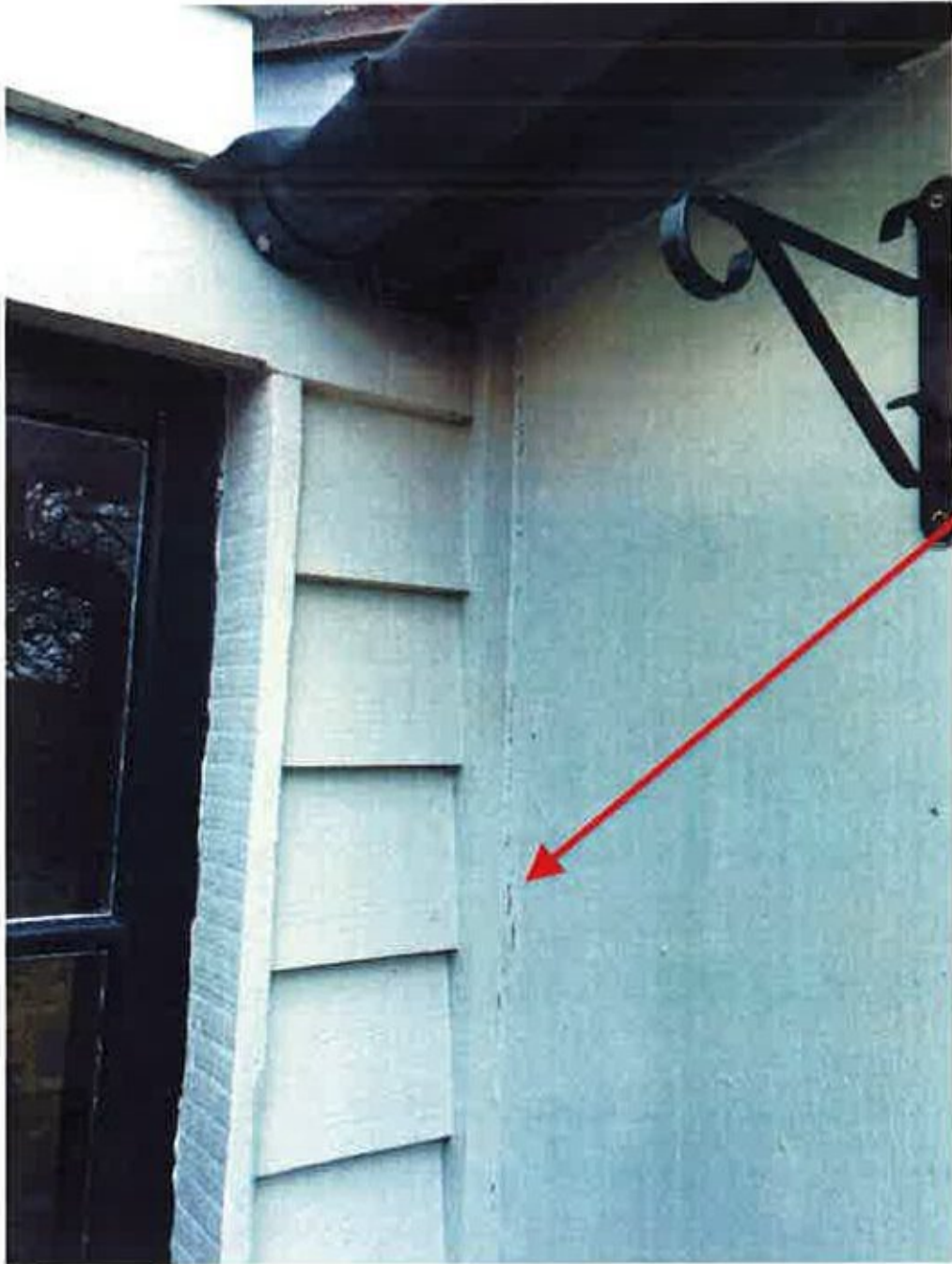
Cracks around chimney and signs of dampness on the internal plaster surfaces.



Low head room above the staircase.



Entrance porch is pulling away from the Cottage.



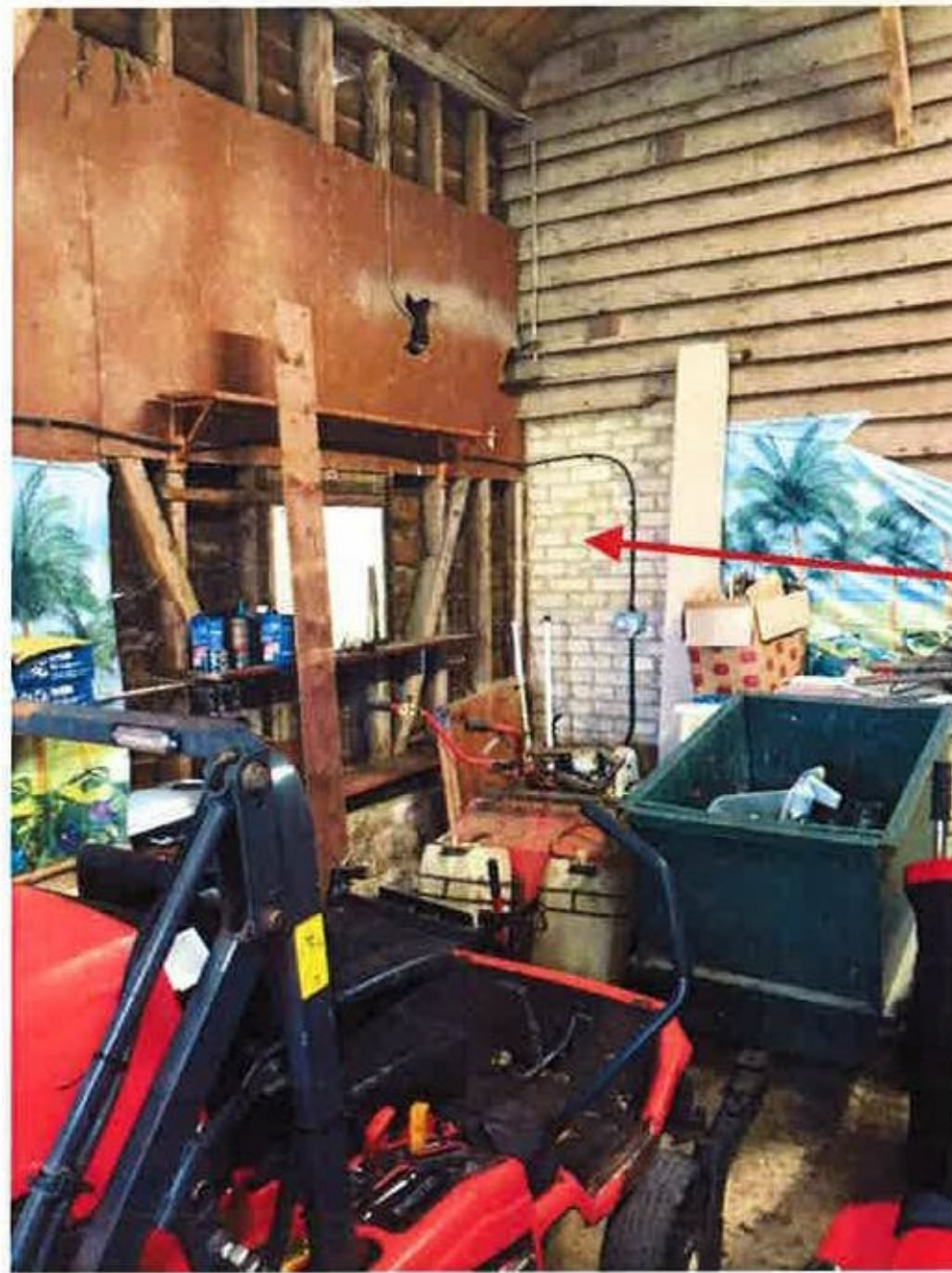
Crack between the Entrance porch and the Cottage.



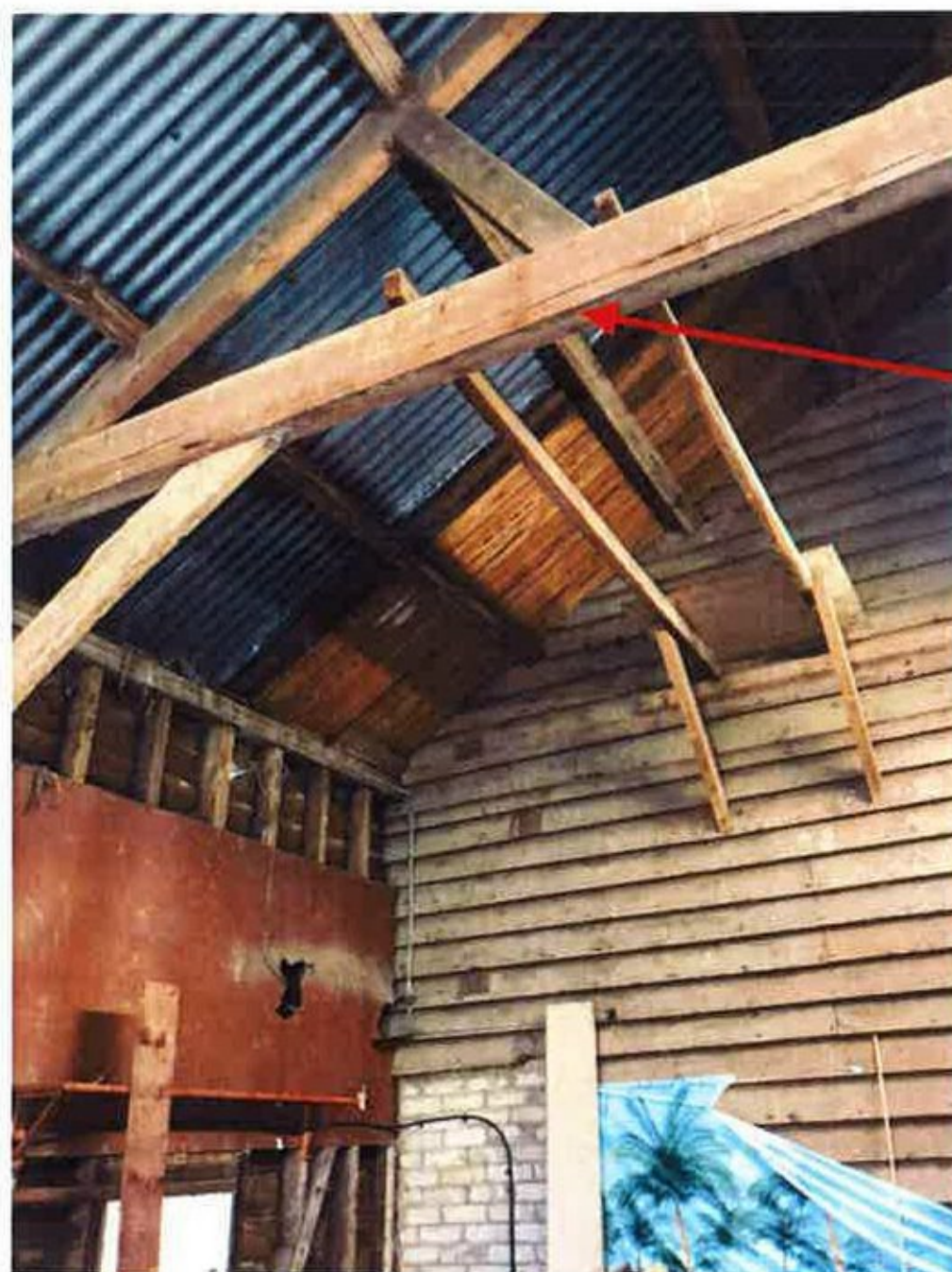
Barn

30.m deep well adjacent to the north - East corner of the barn.





Modern brickwork wall at the junction of the barn and the cottage.



Modern timber to barn roof trusses.



Timber boarding at the junction of the barn and the cottage.



Timber boarding at the junction of the barn and the cottage.



Timber trusses are constructed from modern machine cut timber.



Plain tiled roof on the cottage, Corrugated roof sheeting to the barn.



Elevations.





Very shallow foundations (brick spread).