ARCHAEOLOGICAL BUILDING SURVEY OF FARM BUILDINGS AT YARNER FARM, DARTINGTON, DEVON
(Illustrations Incomplete)

by

C.S. Wakeham

Exeter Archaeology

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1. INTRODUCTION

This report has been commissioned by Dart Developments (SW) Ltd and presents the results of a programme of historic building recording carried out by Exeter Archaeology (EA) at Yarner Farm, Dartington, Devon, in May 2006. The work was required by the local planning authority, South Hams District Council (SHDC) as a condition of the grant of planning permission for the conversion of farm buildings at Yarner Farm into three dwellings (application ref: 14/0785/04/F).

2. THE SITE

The buildings at Yarner Farm are situated near the bottom of a south-eastern facing hill slope on the western edge of the village of Dartington (Fig. 1). The farmyard sits on natural slate but a wide range of materials were found within the surveyed structures.

3. PROJECT BRIEF

A brief for the recording project was supplied on behalf of the local planning authority by the Historic Environment Section, Devon County Council. The principal requirements of the brief were:

- Documentary, photographic and drawn record to RCHME Level II of the buildings which are to be converted.
- Production of a report (this document) and a project archive.

4. METHOD

The survey of the buildings involved the production of a comprehensive photographic record of the exterior and interior elevations in both black and white print and colour slide format. This was complemented by annotated architect's plans and elevations to providing a description of the buildings which forms the basis of this report.

5. BUILDING SURVEY

The three buildings surveyed consist of a shippen, threshing barn and root house; a milking parlour and a calves house located to the north and east of the farmhouse (Fig. 2, plates 1 and 2). With the exception of the farmhouse, no other farm buildings survive.

5.1 **Shippen, threshing barn and root house**

This is a two-storey, north-east facing, L-shaped bank barn comprising a shippen with a root house on the ground floor (Fig. 3). A threshing barn was situated over the shippen and a small loft was over the root house. There are two distinct areas of stonework evident in the structure, although it is probably not a result of two major construction phases.

Materials and construction
The walls of the barn are typically 0.54m thick and constructed of a variety of stone including grey slate, blue limestone and some fine grained granite. The debris from the removed floor make-up within the building also contained green tuffaceous slate.

Northern-eastern elevation
The front elevation of the barn (plate 3) stands to about 6.10m and is composed of two main areas of stonework. The lower area consists of uneven courses of local pale grey slate and dark blue limestone rubble and stands to a height varying between 3.70-4.50m. Above this, the stonework is composed mainly of flatter, darker grey slate containing areas of paler grey rubble.

The elevation contains five openings, all of which are located within the lower area of stonework. These consist of four evenly spaced doorways along the ground floor and a taller first floor one at the centre of the elevation. All of the doorways have square stone arches and stone quoins. Three of those on the ground floor are fitted with 0.09m tall stone stoppers projecting from the southern jambs, about 0.30m from their arches. These doorways also have iron hinges within the northern jambs and can be interpreted as having contained outward-opening doors. The southernmost doorway has no surviving fittings, save a scar for its top hinge on the southern side of the doorway. This doorway is located at the end of the elevation, whilst the northernmost is set back over 2.0m from the corner.

The first floor doorway opposes a wider doorway at the back of the building, a typical arrangement for a threshing barn. The doorway is an original feature, most of it being located within the lighter stonework with the upper 0.50m being within the darker stonework.

Beneath the doorway are three 0.06m wide holes for a small platform. Above the doorway is a small monopitch slate awning. The only other feature of the elevation is a small 0.17 x 0.17m hole, of 0.22m depth, situated 0.35m from the northern corner of the building. This slot is 1.88m from ground level and angled toward the west. It has no obvious purpose.

South-eastern elevation
This elevation measures 8.82m overall due to the outshut root house at the back. The break in the walling seen along the front elevation continues at the same height along this elevation. Again there is a marked contrast between the light blue-grey slate rubble and limestone courses and the larger, flatter courses of darker blue-grey slate. There are also two ventilation slits and two apparent pigeon holes. The lower slit is situated toward the southern corner of the actual shippen and has been blocked up. The upper slit is more centrally located and about midway up the upper, darker stonework. The pigeon holes are located near the apex of the roof.

South-western elevation
Being a bank barn, only the upper floor level of the building is above ground in this elevation. The elevation is staggered to accommodate the root house at the southern end (plate 4). The break between the two construction materials is again evident in this elevation with the same variation between the more unevenly coursed lighter lower courses and the darker blue-grey slate upper courses. The break between the

two is more distinct in this elevation than the others, with negligible variation in height. It does however contain substantial patches of lighter material in the upper courses. The 2.64m wide doorway in the centre of the elevation is 2.95m in height with a wide square stone arch (concealed behind a wide monopitch slate awning). It has been fitted with a timber doorframe with two outward-opening doors, each hung on three 0.45m long strap hinges. The doors are held together by a standard 20th century bolt.

There is a 0.45m wide, 0.36m tall iron-lined hole located 0.69m from the northern end of the elevation. This is situated 1.60m above the break between the lighter and darker stonework. It is possible that this may have been for a mechanical shaft, although no other corresponding fixtures or holes were noted internally. Whatever its purpose, it is now infilled with brick. About 0.40m either side of this hole are two sets of square-angled iron brackets.

This elevation of the root house contains the tip hole/root shute with its slate-lined slope into the building. Two opposing iron hinges are located within the voussoirs of the square stone arch to hold the swinging hatch cover. Being located on the south-western elevation, the hinges indicate that the hatch could be opened outward only.

North-western elevation
The break in the stonework continues along this elevation, although there is an evident step up, of about 0.60m, after the first 1.65m from the western corner. The break is not as clearly defined further along this wall, although it does have the typical variation in stonework of darker material above lighter rubble.

The elevation of the main barn contains a slit about eaves height, which corresponds with the position of the slit in the south-eastern elevation. There is also a window opening at the western corner with the usual square arch indicating it is an original feature. Its width has been reduced, by 0.33m, through the insertion of more stone along its western jamb.

The north-western elevation of the out-shut contains a doorway, against the threshing barn, leading into the loft over the root house.

Interior
The interior fittings and fixtures on both floors of the building had been largely removed prior to the survey of the barn, so that it was completely open to the roof. The only remaining evidence for the internal fixtures are bare patches in the whitewash on the south-western and north-eastern walls (Fig. 4 and plate 5). The north-eastern wall of the main building contains a 0.09m vertical line of exposed stonework running up to the height of the joists at a point about 6.60m from the south-eastern wall. This suggests that the ground floor was divided into two units, the larger of which was in the north. It is unclear when this feature was removed, although as the mark is evident in the whitewash it seems likely that it was during the latter part of the 20th century.

The surveyor was not informed of a partition being removed by the developer, although some concrete walling on the other side of the ground floor were. A series of marks of about 1.04m height and 0.10m width were noted along this elevation at

regular intervals of 2.30-2.34m. These marks may indicate the locations of former concrete cattle stalls along the south-western wall without the use of a feed passage along the front.

Other marks along the wall are less decipherable, although it's most likely that they were connected with the building's use as a shippen. Two wide (0.23-0.25m) vertical unpainted lines located at the northern end of the elevation form a border to a rectangular whitewashed area 0.60m from the former floor level. What this feature represents is unclear but, being situated at the end of a shippen and beneath a threshing barn, it is possible that it was for some framework connected in some way with the provision of feed for the milking herd. Possibilities include the location of a mill, grinding and crushing machine or simply storage racks. The location of this framework is also visible along the inserted stonework used to reduce the width of the window in the north-western elevation. This suggests that this internal feature was not a later addition to the building and led to the alteration of the window.

The purpose(s) of three projecting timber beams along this elevation are even less clear. One (0.10m wide) is located 3.10m from the southern corner, whilst the others (both 0.05m wide) are located near the northern corner. Of the latter, one is 2.76m from the corner and the other is 0.77m to its south. All three project about 0.12m into the building at an approximate height of 1.80m from the floor level. Whilst their purpose remains obscure, it is likely that the northern pair are at least related to one another.

Two metal pipes located beneath the wide barn doorway are angled upward, as if they ran along the barn floor rather than through the shippen. They are most likely a mid-late 20th century insertion and are possibly the remnants of a milk pipeline.

The root house at the back is entered via a doorway against the south-eastern wall, which aligns with the southernmost doorway of the front wall. On the occasion of the survey, a further hole had been made through the shippen wall at the other end of the root house in order to move the doorway to the north-east. This new opening was not based on an existing or blocked doorway. This suggests that the root house was entered via a corridor or passage running along the south-eastern wall of the building. Two iron hinges are leaded into the south-western side of the doorway and an iron latch ring is located 0.07m from the north-eastern edge on the other side, indicating that the doorway opened into the root house.

The only surviving fixture within the root house is 0.70m long L-shaped wooden boarding projecting into the store from the north-western side of the tip hole and evidently midway through the loft floor (plate 6). This feature is composed of three planks (with three perpendicular short ends) nailed to two uprights - one of which is turn nailed to the timber lintel behind the square arch of the shute opening. The second upright has been broken away just below the planks, thus it is unclear as to how far down it originally extended. The sawn angled ends are attached to this end of the structure. A dark mark at the other end of the lintel indicates corresponding boarding was attached to the south-eastern end as well. This feature probably acted as some form of funnel or guide for root vegetables being poured either through the tip hole or through a hole in the loft floor.

All of the floor surfaces of the building have now been removed. That of the ground floor has been excavated to a depth of about 0.50m. All of the north-east to south-west running joists for the loft areas have either been sawn off or removed in their entirety, save one at the south-eastern end of the shippen. The remaining sawn ends within the shippen suggest a combination of sawn timber and rough poles were used in the construction.

Roof
The roof is a single phase structure based on seven A-frame trusses, the collars of which are pegged and nailed to the north-western side of the principal rafters. The trusses support three purlins on each side and are all fitted with brackets to hold the ridge piece, which is abutted by the common rafters over which are laid the battens and the slates.

A feature of many late 19th century threshing barns is the use of tie-beam trusses with kingposts. The use of nailed and wooden pegged A-frame trusses suggests an earlier construction date – either late 18th or early 19th century.

5.2 **Milking parlour**

This is a circa mid 20th century structure (Fig. 5), perhaps of limited archaeological or historic significance, but built along traditional lines. The 1886 surveyed OS map indicates that the site was occupied by an open-fronted building (perhaps a linhay) and it is quite possible that the materials from this earlier structure were reused in the present building. No evidence of retained standing masonry from this earlier building could be identified which suggests it was completely demolished.

The form is a rectangular, north-west to south-east running, two-storey building consisting of a ground floor milking parlour with a low loft over.

Materials and construction
It is built of similar materials to the barn and shippen with strap-pointed mortaring. The openings are all dressed with frogged bricks and fitted with concrete lintels and sills. Bricks have also been used to dress the corners and here alternate in groups of three stretchers and three headers. The roof is of galvanised sheets, which do not appear to be of any significant age.

Northern-eastern elevation
This front elevation (plate 7) contains several openings, both original and later alterations. The original symmetrically fenestrated layout consisted of three doorways and two windows on the ground floor with three low loft windows (one over each doorway).

The southernmost doorway has been part blocked up and rendered with concrete to reduce it to a window. It has been superseded to the north by an inserted doorway against the nearest window. The concrete lintel of this doorway bears the impression of the timber shuttering which was used for moulding it.

All of the openings, including the later doorway, are dressed with bricks aligned to alternate in groups of three: a stretcher either side of two adjacent headers, alternating

with three headers. The later doorway is a less sophisticated version of this pattern. The alignment of the brick quoins of the building's corners alternate in pairs.

South-eastern elevation
The openings in this elevation consist of three doorways, each on a different level (plate 8). That on the ground floor (at the east corner of the building) has been extended toward the south-west to take a sliding door. The only remnants of the sliding door are now the five iron brackets. The lintel of this doorway again exhibits the imprint of wooden shuttering – revealing the use of a three plank wide mould!

The loft doorway is situated off-centre from the apex and is the highest of the three. It is unaltered and appears to contain the original, inward opening, ledged and battened door (painted white) within its doorframe.

The third doorway is positioned at the southern corner and has been partially blocked up with concrete blocks to form a window. The doorway is positioned midway in height between the other doors, but the purpose for this is now unclear. Internally the wall has been rendered almost to its window sill, which suggests that its use as a doorway was rendered obsolete during a significant change to the layout of the interior. The elevation also has plain, thin, unpainted fascia boards.

South-western elevation
This elevation faces a bank, at the rear of the former farmyard, from which it is separated by less than a metre. The elevation is symmetrically fenestrated and consists of three ground floor windows with three loft windows above. All appear to be original features. There are mortar marks in all the windows for iron glazed frames, although only the upper north-west and south-east windows now have any remains of the frames.

A narrow hole, about 1.50m from the south-eastern ground floor window has been blocked up and reduced to an alcove within the interior. It is marked on the exterior by two parallel lines of three bricks 0.27m apart. Bricks also appear as part of the masonry in this elevation – presumably as they would not be seen at the back of the building.

North-western elevation
This elevation is also symmetrically fenestrated and consists of two ground floor doorways (one at each end) flanking a window with a loft doorway above. The doorway in the western corner is slightly narrower than the other and both have iron brackets above for sliding doors. The now decayed rubber stopper on the north-eastern jamb of the northernmost doorway is still *in situ*. The loft doorway appears to have retained its original ledged and battened doorway like its counterpart at the other end of the building.

Interior
The floor and most of the internal fixtures and fittings had been stripped out prior to the site visit. Among the only notable remaining features within the building were whitewashed walls, which had been rendered over with cement to comply with dairying hygiene regulations. A few stones embedded in the floor, forming the

remnants of two north to south running parallel walls, mark the site of a rectangular lined console pit, common to late 20th century milking parlours.

Roof
The roof structure is composed of five 20th century timber A-frame trusses. The northernmost truss is fitted with a kingpost. The principal rafters have nailed lap joints at the apex and have been reinforced with metal straps. The joints of the collars are grooved and have each been nailed to the southern side of their trusses. The trusses carry three purlins, each side, nailed into position and again reinforced with metal strapping. The purlins are fixed into the end gables with a light grey cement. All evidence indicates a late 20th century replacement roof structure to take the current corrugated iron roof which sits directly over the purlins.

5.3 **Calves house**

This is a low, two storey stone-built north-west facing structure with a hipped roof and remains of an adjoining structure at its south-western end (Fig. 5 and plate 9). Its construction appears to be broadly contemporary with that of the milking parlour and map evidence suggests it is sited on ground previously unused for building, indicating a 20th century building date.

Little diagnostic evidence of the buildings past now exists. It has been identified as the calves house from information passed on from the builders, who were informed by the current occupants of the old farmhouse.

Materials and construction
The 0.47m thick, random stonewall construction consists of dark grey rubble, bonded with grey strap pointed mortar. The openings and corners have been dressed with red bricks. The pattern of the openings alternates in groups of three: a stretcher either side of two adjacent headers, alternating with three headers. This pattern matches that of the milking parlour although, unlike the latter, the alignment of the perforated brick dressings on the corners of the building alternate in pairs. The openings all have concrete lintels and sills.

South-western elevation
The main building has a symmetrically fenestrated south-western elevation, consisting of a window either side of a central doorway and a dormer style loft doorway above. Remaining mortar marks within the window openings indicate that both were fitted with timber-framed windows.

The loft doorway has a gable-ended roof, although the upper portion of the doorway is of modern construction pertaining to the current conversion work. The author of this report was informed, by the building contractors, that the current general appearance and roof structure of the building (and hence including the loft doorway) are based on the original structure.

A doorway at the southern corner of the main building leads into the remains of an apparent lean-to of 4.30m length that ran the full width of the building. It is only this elevation that now remains of the adjoining structure, the rest has been completely demolished. Again the doorway is dressed with bricks alternating in groups of three

and finished with a concrete lintel. The stonework of both main building and evident lean-to is continuous above this lintel which suggests that the lean-to was integral and built as part of the original construction phase. Contrary to this, the southern end of the wall is dressed with bricks arranged in groups of three.

North-western elevation
This coursed rubble elevation is largely devoid of features. The only original feature appears to be a drain hole with a brick surround located 0.89m from ground level. A window opening near the centre of the elevation is an inserted feature contemporary only with the current conversion to a dwelling.

Northern-eastern elevation
This elevation contains three square ventilation holes about 2.00m from the original ground level. The stonework has a more coursed appearance again and the eastern corner of the main building now has a rough outline demarcating where the adjacent lean-to has been removed. Again this indicates the lean-to was integral and an original feature of the building.

South-eastern elevation
The south-eastern elevation of the lean-to had already been largely demolished prior to the survey. All that now remains is the brick dressed end of the south-western wall. The nature of this brick dressing does however indicate that the lean-to either had a doorway at this end or, more likely, was open-fronted.

Interior
The interior survey of the building was again compromised by conversion work being already underway. The wall between the main building and the lean-to was being fitted with a new doorway during the site visit. The site foreman stated that this location was previously the site of a blocked doorway. There were, however, no traces of a former doorway left to be seen to provide further comment on.

The north-western end of the interior was largely finished with concrete render to a height of 1.52m. This render runs down the building a distance of 2.82m on both front and rear walls. The presence of this render is compatible with the building's use for livestock and the absence of any stall fittings does corroborate the information that the building was used for calves. Nothing now remains of the original lean-to interior.

Roof
Although the author of this report was informed that the new roof structure is based on the original (albeit previously finished with corrugated iron), the latter had been completely replaced prior to the survey. Thus no further comment can be made on the roof other than it is now a slate hipped roof with a dormer loft style doorway.

6. DISCUSSION

The northernmost of the remaining outbuildings at Yarner Farm appears to have functioned as a typical 19th century combination building, containing several compatible elements under one roof. The first floor threshing barn was probably used both for commercial and subsistence production of grain. Being placed over the shippen, threshed grain would be immediately at hand to produce meal for the cattle.

The possible positioning of a grinding and crushing machine at the northern end of the building suggests this was indeed the case, although the evidence indicates that this was a later insertion.

The means of provision of power to any machinery within the building are now unclear. The hole in the south-western elevation of the barn suggests the presence of a mechanical shaft, although there are no further signs of any iron brackets or fixtures. No round house is depicted on either of the OS maps, which precludes the use of horsepower. By contrast, another building depicted just to the north, clearly has a roundhouse attached. This indicates mechanical threshing was certainly taking place in another building by 1886. Consequently, the mechanisation of threshing within this barn may not have been required. A root cutter in the root house may have been hand-driven which would preclude the requirement for either horse or steam power.

The thinner walls of the root house and a slight vertical step of 0.06m in the south-eastern wall of the building, where root house meets shippen suggests that the root house was not part of the original design, although no discernible breaks can be detected within the masonry.

The positioning of the root house at the back of the barn would also have allowed for processing feed on site. It is tempting to suggest that the loft space over the root house was used for the storage of the root vegetables prior to being tipped into a root cutter within the root house (although the cooler conditions of the ground floor root house would be more suitable for long-term storage of root vegetables). The positioning of the fixed wooden guide midway through the loft floor level certainly favours such an interpretation. The fact it is positioned against the root shute suggests that the two were ultimately in contemporary use, although only the root shute in the south-western wall can be firmly attributed to its original construction phase. It is also possible that the insertion of the timber funnel or guide is indicative of a change of usage within this building, although the loss of all other fixtures and fittings leaves this question unanswerable.

The use of multiple doorways along the front elevation of the building suggests that the shippen was divided into a series of compartments and feed passages. It is difficult to ascertain how this shippen arrangement would have worked from what little now remains, although it is unlikely that there were originally more than three sets of cattle standings. The loss of most of the internal features again prohibits a full interpretation of this part of the building to ascertain how the various compartments and feed passage(s) interrelated.

The change in masonry, which may be traced around the entire building (including the root house and its loft) part way up first floor level, suggests a later phase of activity, although no difference in the bonding mortar may be detected. Whilst the change of material is certainly the result in a change of stone source, the timing of this change is less clear. There are three possible interpretations.

The first possibility is that the change of material dates to the original construction and is a result of a change of source of material. This interpretation is countered only by the construction of the doorway of the smaller loft. This doorway has a timber

lintel, set in the darker stonework, rather than a square stone arch which is in use on all the other openings, including the root shute.

The second possibility is that the change of material is due to a heightening of the building. There are, however, no clear changes in the bonding mortar, few straight breaks in the stonework and the intrusion of lighter patches of stone within the darker upper layers and vice versa. This makes this interpretation seem unlikely.

The third possibility is that the building suffered extensive damage and underwent a major renovation, which involved the use of on site materials combined with the introduction of new stone. For a building to have suffered to such an extent would take a considerable period of time, certainly over a decade, or a major catastrophe. Either possibility would have surely led to further structural weakness in the remaining structure for which there is no evidence. Only documentary evidence could substantiate this possibility and for this reason the first possibility, of the change of material taking place during the original construction phase, appears to be the most likely explanation.

The use of the lighter materials in the construction of the two later buildings suggests the use of a source common with that for the lower part of the shippen and threshing barn. The most likely explanation for this is that materials for earlier buildings were recycled into these buildings, particularly as the milking parlour was built on a reused site with no trace of a surviving structure being incorporated into it.

Both later buildings can be determined as post-dating the revision of the first edition OS map in 1903 and the use of concrete lintels in conjunction with a more traditional stone construction with brick dressings suggests a construction date around the middle of the 20th century.

Although broadly contemporary, the buildings do not appear to have been constructed together as evidenced by the difference in the brick patterns at the corners of the buildings and the use of frogged bricks in the milking parlour and perforated bricks in the calves house.

Despite being of 20th century origin, the milking parlour has had several alterations made to its openings, of a nature suggesting a significant modernisation of the interior. These alterations seem to have been focused on the south-eastern half of the building and involved the conversion of two doorways to windows, the creation of a new doorway and widening of another. Unfortunately, nothing now remains to ascertain the exact reasons for these alterations. They were certainly for increased access on the ground floor and to accommodate new internal fittings, which appear to have rendered the third opening of the end elevation obsolete as a doorway.

7. CONCLUSION

The shippen with threshing barn over is certainly the oldest of the remaining outbuildings at Yarner Farm. It is built on traditional lines, probably around the middle of the early 19th century and, as far as can be ascertained, functioned as a typical combination building suitable for a mixed farm of both arable and pasture land.

The other buildings appear to relate to increased dairy farming during the 20th century and are of post 1905 construction (probably circa 1930). The use of traditional style and building materials combined with concrete lintels do make them stand out as slightly unusual. The construction of agricultural buildings, then typically of stone and brick construction, tailed off after 1914 from its 19th century heyday, before a post 1945 resurgence of farm building with the emphasis then on concrete and brick construction. These two buildings appear to represent the transitional phase of this shift in emphasis and appear to have proved fairly adaptable to later 20th century modernisation and increased intensification of dairy farming.

ACKNOWLEDGEMENTS

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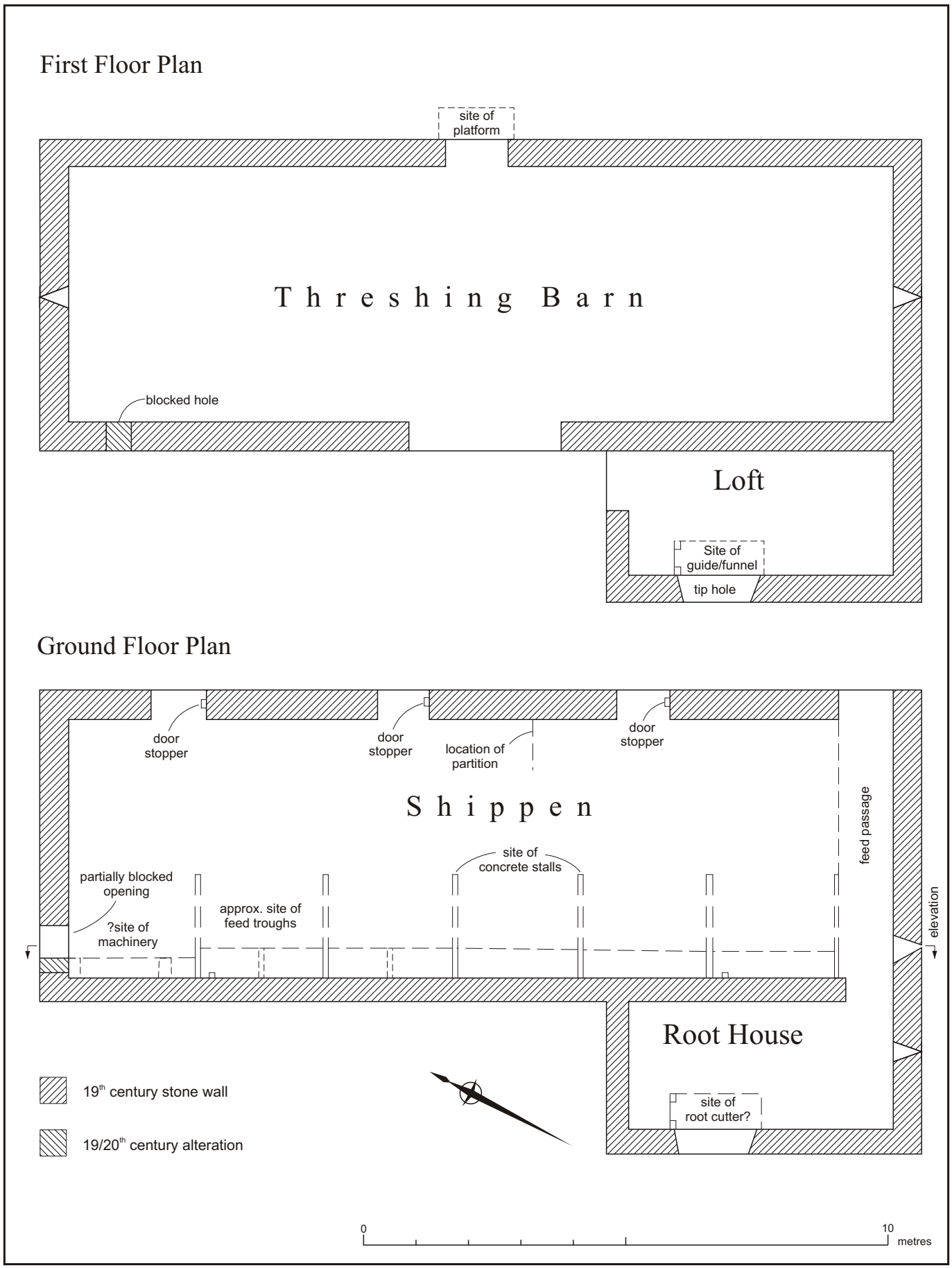

Fig. 3 Floor plans of shippen, threshing barn, root house and loft showing some reconstructed detail (based on original architects plans by Hopwood and Swallow with amendments).

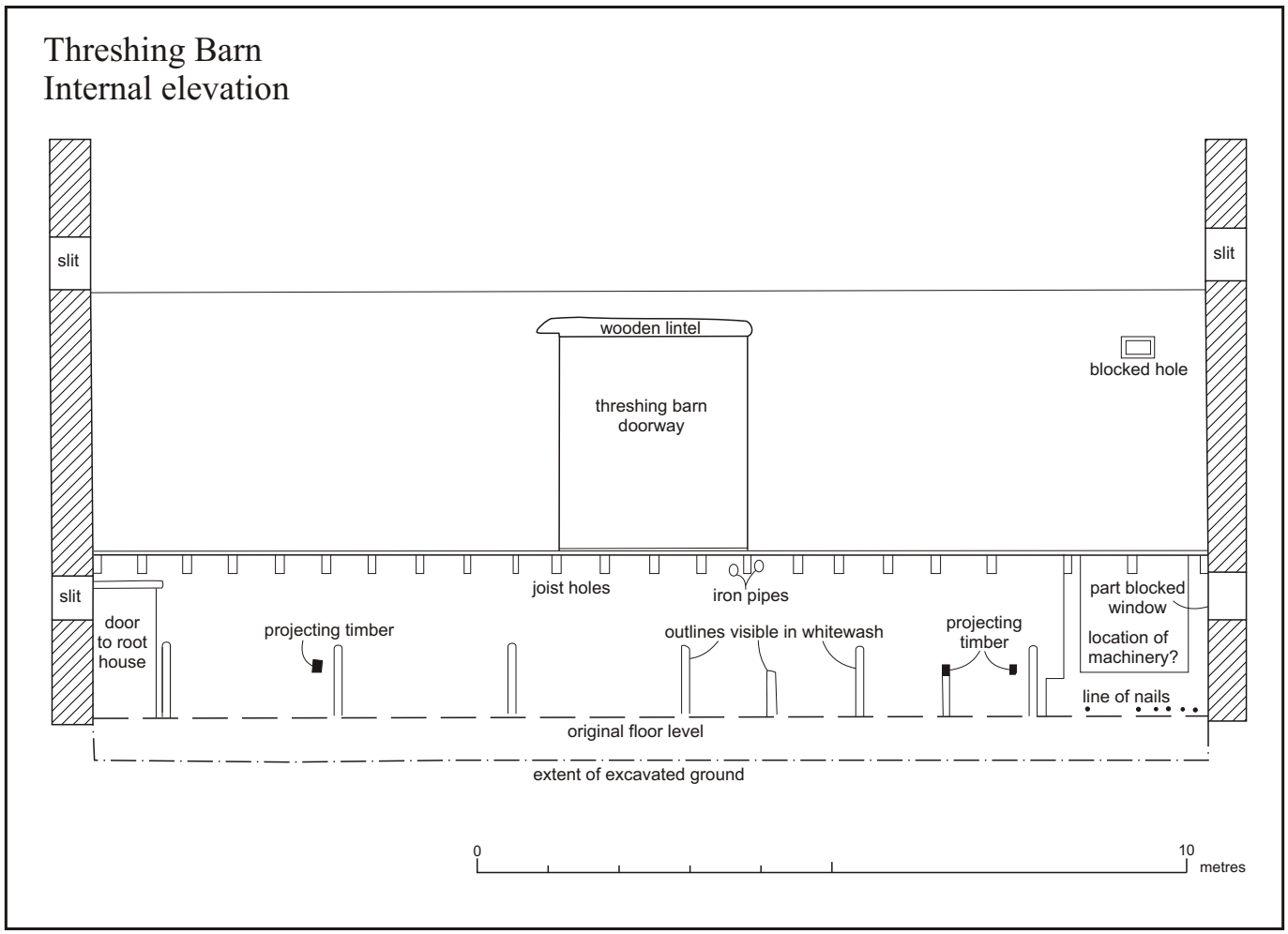

Fig. 4 Interior of south-western shippen and barn wall (view to south-west).

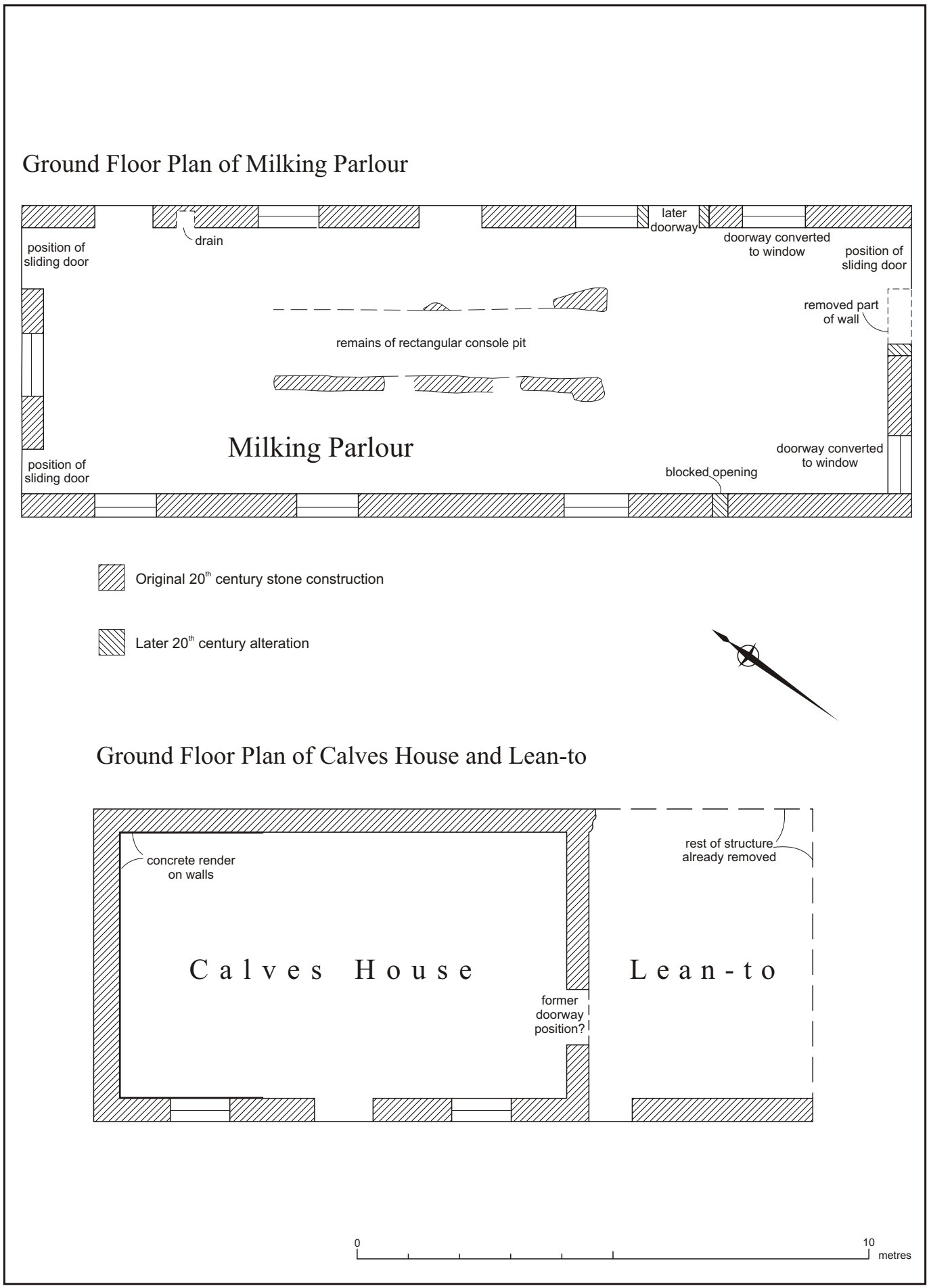

Fig. 5 Ground floor plans of the milking parlour (top) and calves house with lean-to (bottom)