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NEW DISCOVERIES AT YEAVERING, NORTHUMBERLAND

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Introduction

Yeavering in Northumberland (NT926305) is well known for its appearance in the eighth-century *Ecclesiastical History of the English People* by the Venerable Bede. Bede describes a visit to the royal vill of *Adgefrin* during the reign of King Edwin (*c*. AD 627). During this visit he tells how the Christian missionary Paulinus 'instructed and baptised', in the river Glen, 'many people who gathered there from the surrounding settlements and places' (*HE* II, XIV). The site was recognised in antiquarian accounts but had largely been lost and forgotten until air photography in 1949 revealed traces of sub-surface features delineating a series of rectangular 'hall-like' buildings (Hope-Taylor 1977, 4).

The subsequent excavations by Brian Hope-Taylor are now legendary in British archaeology. Between 1953 and 1962, using large-scale, open-area trenches, he and his team brought to light almost unique evidence at the time for a putative royal palace, argued to operate in the sixth and seventh centuries AD. The site of the palace complex, encompassing halls, ancillary buildings and structures, such as the Great Enclosure and Building E (a timber theatre), is positioned on an elevated natural gravel plateau overlooking the flood plain of the River Glen, and in the shadow of the Cheviot Hills and the hillfort of Yeavering Bell (Figs 1a–b). Despite the extensive investigation led by Hope-Taylor, and later excavation by Anthony Harding of the Chalcolithic/ Early Bronze-Age henge immediately south of the palace complex, the full extent of the developmental sequence for this key site remains open to question (Harding 1981; Tinniswood and Harding 1991).

Several years of collaboration between Durham University and the *Gefrin Trust*, with input from key regional stakeholders, resulted in a Research Assessment and Research Agenda for the site (Semple *et al*. 2020a–b). A programme of non-intrusive survey using resistivity, gradiometry and infrared air photography was set in motion, formalised as the *Yeavering Environs Project* in 2020. A MoRPHE-compliant Project Design, developed by Durham University and the *Gefrin Trust*, underpins a new phase of survey and excavation at this iconic multi-period site. Primary aims of the project include establishing secure dating control and phasing of archaeological features on the gravel terrace and characterising the full extent of multi-period activity on and beyond the site environs.

Between August and September 2021, the team undertook an initial three-week pilot season of geomagnetic survey and excavation at the site. Extensive cart-based geomagnetic survey across c. 54 ha, alongside a further 12 ha of hand-held geomagnetic survey in 2022, has delivered a detailed picture of the site and environs, identifying a wide range of new multi -period features, including, notably, circular structures and rectilinear enclosures close to the western outer ditch of the Great Enclosure. Further (probable) early medieval structures can be identified in the vicinity of Hope-Taylor's Area C, and features of unknown date are evident within the compass of the Great Enclosure.

Despite many years of work and a seminal publication in 1977, Hope-Taylor's chronology was framed by the dates and events described in Bede's historical account of the kingdom of Northumbria. In our Project Design, we therefore place emphasis on targeting excavation in areas where we can open and re-excavate features originally uncovered by Hope-Taylor with the intention of securing material for dating. Concurrently we seek to investigate and explore new features, allowing us to expand knowledge and understanding of multi-period activity at the site.

With this in mind, in 2021, two trenches were opened in Hope-Taylor's Area C (Trenches A and B) (Fig. 2). Trench A was positioned to relocate Hope-Taylor's excavation of Building C1, which original site photographs had indicated contained substantial carbonised timber remains. Trench B was located to the north, to explore a sub-rectangular anomaly present on aerial photographs.

The discoveries have been significant. In Trench B we identified a new early medieval structure (C0), part-sunken and cut into the northern slope of the plateau. On the south side, where the building was cut sharply into the hillside, excellent preservation enabled the team to expose working floor levels, evidence of subsequent repairs to the structure and later infilling of the feature

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Figure 1a The gravel terrace in the lower central foreground is the location of both cropmarks and the later excavated evidence for an early medieval royal palace complex. © Airphotos Ltd.

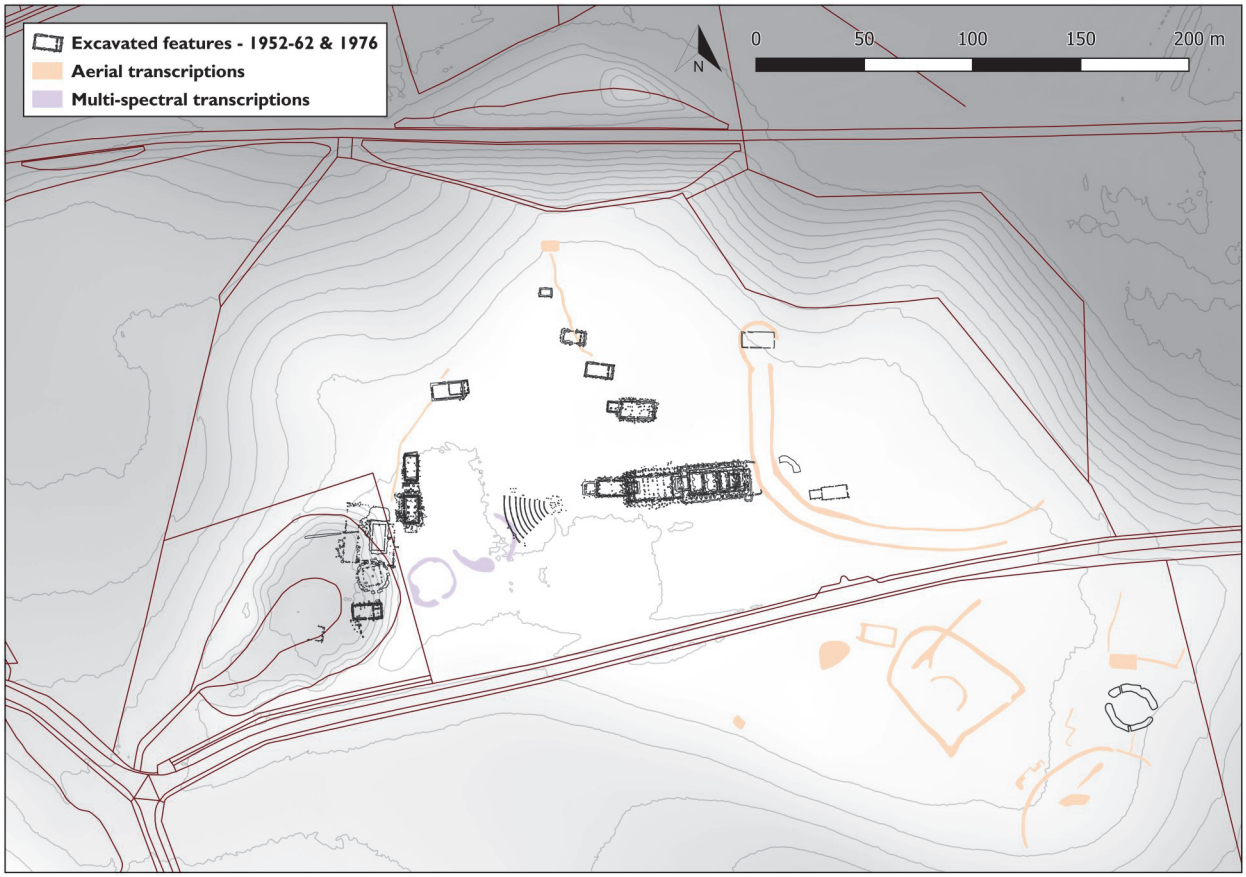

Figure 1b Digitised general plan of features and excavations at Yeavering 1952–62 (after Hope-Taylor 1977, Fig 12). By A.T. Skinner. © Durham University and The Gefrin Trust.

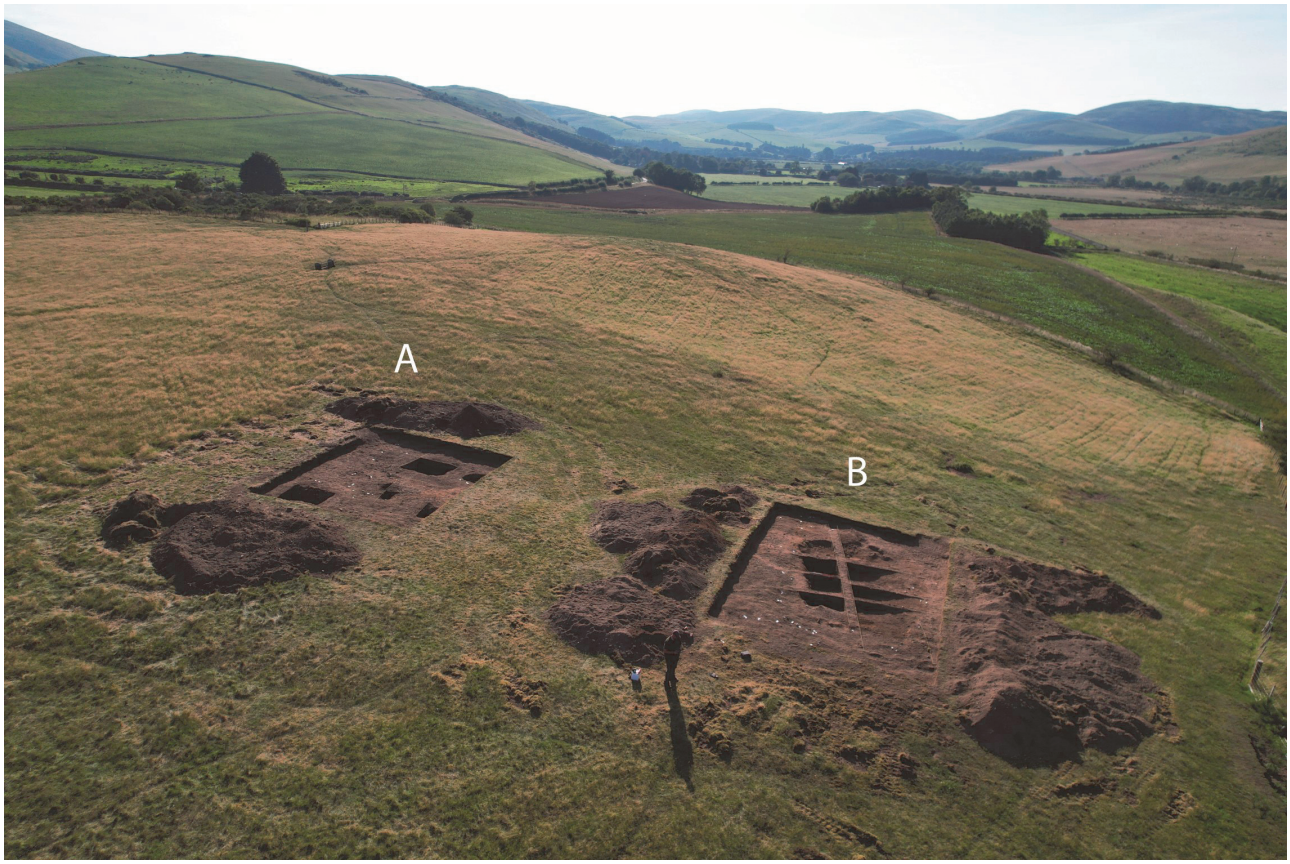

Figure 2 Aerial photograph showing the 2021 excavations underway with Trench A to the left and Trench B to the right. © Durham University and The Gefrin Trust.

after abandonment. Post-excavation analysis and environmental processing continues, while radiocarbon dates are awaited, but deposits, including a surface potentially exposed to heat, were extensively sampled. Good preservation of animal bone, teeth and charcoal deposits have provided a secure, well-stratified sequence of materials suitable for scientific dating, while discoveries of bead fragments, clay loomweights (baked and unbaked) and an iron knife, all associated with floor levels, strongly suggest this structure served as a multi-purpose, multi-phase workshop area, perhaps open-sided to the north.

A summary of these recent findings is forthcoming in *Medieval Archaeology*, and a full publication is in preparation. In this short article, we focus particularly on discoveries in Trench A and the re-excavation of Hope-Taylor's Building C1, which has not only yielded material suitable for radiocarbon dating but has raised questions over Hope-Taylor's understanding and reconstruction of the architecture of this sunken-featured structure.

Excavation in 1956/7

Of the many structures excavated by Hope-Taylor with evidence of destruction by fire, Buildings D3 and C1 provided him with most information as to their original appearance, principally owing to the enhanced protection their sunken interiors afforded to the debris fallen in conflagration. Of the two, C1 proved the more informative, primarily because of the greater depth and therefore capacity of the pit within to contain a larger volume of the fallen structure. Its high sides would prove critical in creating the enclosed 'smouldering combustion' environment so conducive to converting wood into charcoal (see Harrison 2012). Additionally, unlike D3, Building C1 had been neither rebuilt nor replaced but had its contents sealed intact beneath a surface levelling. C1 provided Hope-Taylor with sufficiently detailed information to enable him to present the best evidence-based reconstruction of a building, complete from foundation to ridge-line, of any he would encounter at the site (Fig. 3).

Hope-Taylor's record of what he had found of Building C1 – its former appearance as a structure and his interpretation of it as a weaving hut, based upon the discovery of a loomweight within – is summarised together with a plan and section and four photographs published in his report (1977, 88–91, Fig. 37, Pls 55–8) (Figs 4a–b). Re-excavation carried out in 2021 of two opposed quadrants within the eastern half of Building C1 confirmed his general observations regarding the structural elements encountered, but also identified some differences of measurement and, critically, the addition of one structural feature that has significant implications for his reconstruction (Hope-Taylor 1977, 91, 181–82, Fig 86, D2) (Fig. 5).

Hope-Taylor envisaged a tent-like roof resting on the ground surface and covering an area of some 4.7 m in width by a minimum of some 6.0 m in length (Fig. 3). Its central ridge had been supported by a single post at the mid-point of the gable ends, and rafters along both of the long sides. His record of what he interpreted as the residue of 'white ash' and 'straw or reeds' across the floor indicated to him that the roof had been

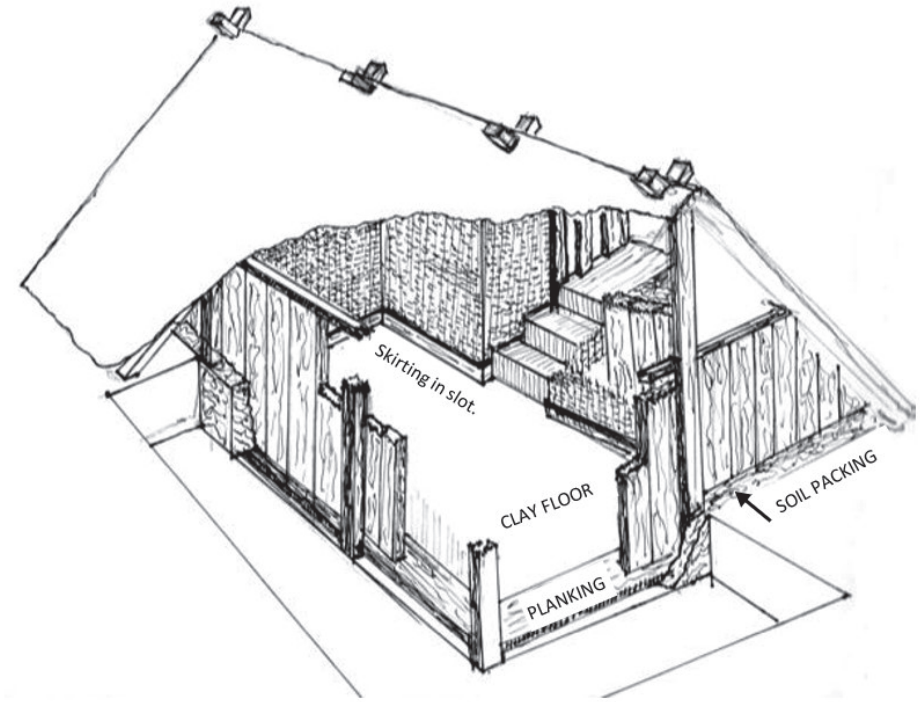

Figure 3 Reconstruction of Building C1 as envisaged by Hope-Taylor. Drawing by R. Miket. © The Gefrin Trust.

thatched. A porch-like entrance had stood at the centre of the south side with access to the interior through a doorway measuring a little over 0.6 m in width.

Beneath its roof, the building had been constructed wholly within a vertically-sided rectangular pit measuring some 4.2 m in width and 6.0 m in length. This had been cut into the natural sand and gravel substrate to a depth of around 0.9 m with an internal area of 25.2 m^2. Hope-Taylor begins his description of the interior with the rectangular framework of a double-setting of planks on edge, forming a narrow groove or slot a little over 0.6 m distant from the sides of the pit (Fig. 4a). The inner setting of planks provided a 'skirting' edge defining a rectangular space at its centre. This was occupied by a well-laid, beaten, thick clay floor measuring 2.7 m in width by 4.6 m in length. The narrow slot formed between the inner and outer concentric settings of planks was filled with 'clay and charcoal' that Hope-Taylor saw as the remains of walls of wattle-and-daub panels, defining the limits of the room. Just as the clay floor within held the inner skirting in place, so too an outer framework of exceptionally wide planking was laid up against the outer plank uprights of the slot, so buttressing them in place. In the space between their outer edges and the vertical sides of the pit's long walls, Hope-Taylor records the intermittent occurrence of upright posts. His plan shows that they were spaced at distances of, on average, around 1.2 m. Apart from a single reference to them as 'retaining posts', he attempts no further interpretation as to their possible structural function.

He regarded the fallen thick and wide burnt timber 'balks' overlying the above as representing the inward collapse of the north wall of the building during conflagration. This wall, he believed, had stood vertical, seated upon the planks laid around the exterior of the slot. Its outer face would thus have been set at a little distance from the sides of the pit; the space between he envisaged as being filled with a 'packing soil'. One final element noted by him was the exceptional degree of 'wear and patching' of the floor, 'along a line roughly 18 inches (0.45 m) from and parallel to the long axis' (Fig. 4b).

Though correct in all major respects, the reconstruction invites scrutiny. Hope-Taylor did not consider the possibility, for example, of the sunken interior as a cellar space beneath a suspended floor within the building (see, for example, Stanley West's work at West Stow, Suffolk: West 1985), or that the fallen timbers might themselves have been from such a floor rather than a wall. Visualising the building invites questions as to its practicalities. Not least of these is that with a clay floor of 12.4 m^2 occupying only half the 25.2 m^2 area of the pit floor, why was such a large pit excavated for a structure of significantly smaller size? His reconstruction posits the space between the outer face of the balks and the enclosing pit as filled with soil and intermittently spaced upright posts, and that between their inner face and the wattle-and-daub panels as an open space. Neither does he address the question of how the feet of the thick wall timbers were secured in place, resisting lateral pressure from the 'substantial packing' between them and the pit sides.

Discoveries in 2021

Re-excavation in 2021 of Building C1 showed that much of the evidence upon which Hope-Taylor's reconstruction was based had survived to varying degrees within the interior (Fig. 5). This new work allowed for minor details and additional measurements to be added to those previously recorded, and – crucially – resulted in the recovery of datable material and environmental samples. One unanticipated outcome, however, was the discovery of an additional feature, which raises questions over the accuracy of Hope-Taylor's reconstruction.

Hope-Taylor's excavation photographs and plan had shown that the horizontal planks had been set, not up against the side walls of the pit, but at a relatively uniform distance of 0.2–0.3 m from them. Where best

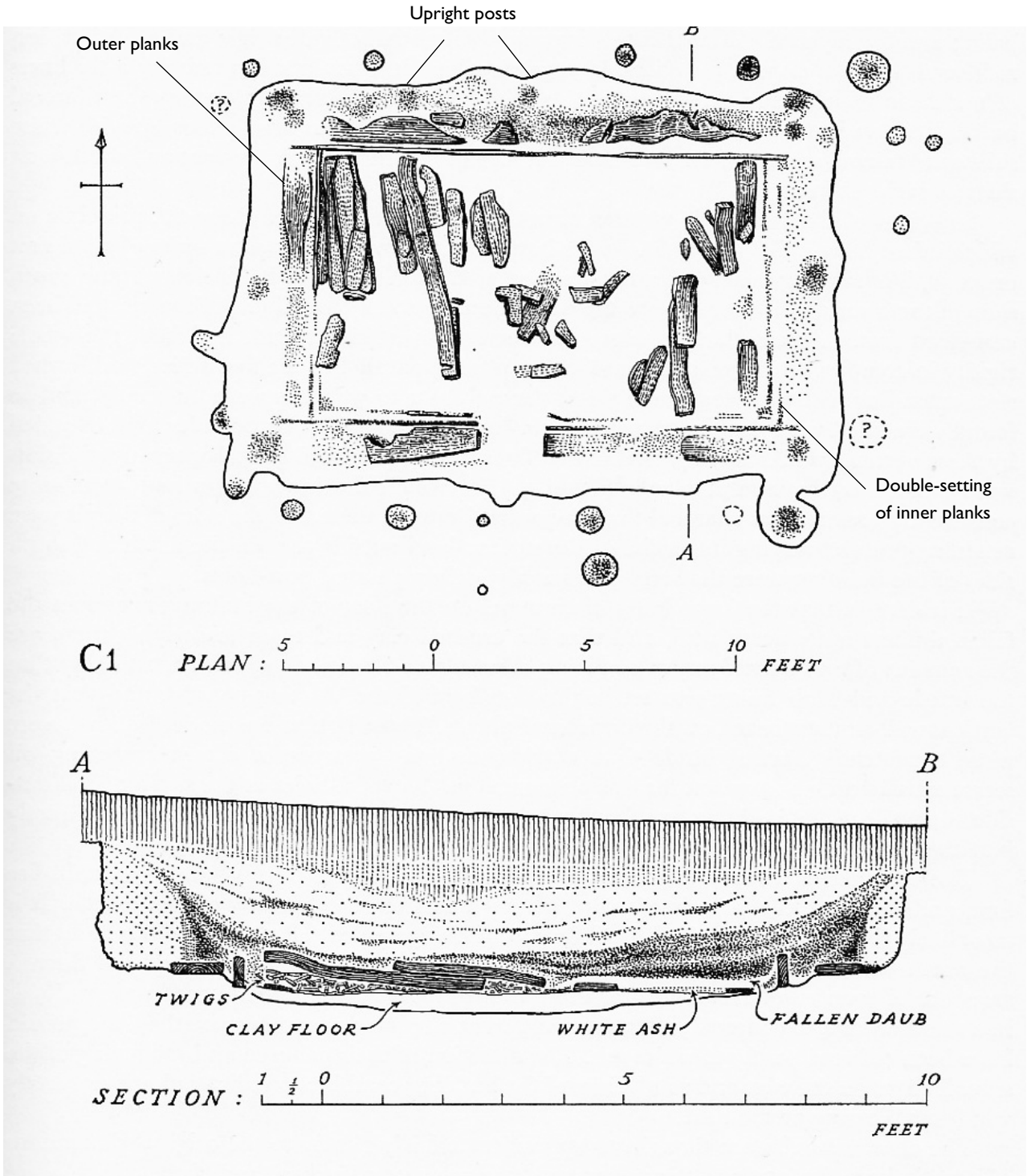

Figure 4a Hope-Taylor's plan and section of Building C1 (Hope-Taylor 1977, Fig 37), with new annotations. Original illustration reproduced from HES archive with permission of Historic Environment Scotland.

Figure 4b Hope-Taylor's photograph of the interior of C1 in 1956. The position of individual upright rectangular posts are visible within their bedding slot, cut at the foot of the pit sides in lower right in the photograph. Reproduced with permission from Historic Scotland Archive [Y56 91 5591].

preserved, notably along the line of the south wall, this space was filled with a grey sand, sealed beneath charcoal and debris deposits (Fig. 6). These deposits partially directly overlay the substrate upon which the horizontal planks rested, but also appear to have continued further downwards, filling a square-sectioned slot cut into this substrate and running parallel to the side walls of the pit. The section lying within the south-west quadrant was excavated in its entirety in 2021, to reveal a slot cut some 0.10–0.15 m in width and depth, running unbroken the full length of the excavated area. A single post-pit lay within its line, 0.15–0.18 m in diameter and filled with the same dark grey sand as the slot (Fig. 7). The position of this post-pit corresponds to those Hope-Taylor had identified elsewhere as 'retaining posts', and it is assumed to be a further addition to this group. The grey sand filling was not continuous throughout the length of this cut feature but terminated c. 0.3 m from the western section within the excavated quadrant (Fig. 7). Here, a darker filling containing some charcoal replaced the grey sand. This not only filled the slot but also spread further northwards to the edge of the clay floor of the interior. In extent, it occupied the space Hope-Taylor shows on his plan as being bounded by the terminals of the horizontal planking and 'skirting' slot that coincides with what appears to have been the point of access through a porched entrance (see Fig. 4a).

How Hope-Taylor – an excavator with such a precise eye for detail – could have overlooked this feature is unclear, but the archives reveal some detail on the site and conditions at the time. Re-examination of Hope-Taylor's black-and-white photographs provide a record of this feature at several places around the perimeter, and also appear to show in places the carbon imprints marking the positions where individual timber wall balks had stood when set upright along the wall line (Fig. 4b). They also reveal the pressures on Hope-Taylor as he was attempting to complete his investigation of the C complex of buildings. The loose granular nature of sand and gravel, and its susceptibility to movement under even the gentlest atmospheric conditions, is familiar to those experienced in the excavation of such soils. With winter just a few weeks away, the investment of time required to keep the site clean and the base of the pit's sides clear of banked

Figure 5 The quadrants excavated in the eastern half of Building C1. Note the spread of charcoal-debris at the lower left corner of the south-west quadrant, coincident with position of a stepped descent form the porch entrance. North at the top. Drone photograph by Brian Buchanan. © East Washington University and The Gefrin Trust.

sand was a luxury Hope-Taylor did not have. Some photographs show the cleaning of small areas preliminary to his taking photographic records, others do not.

Our discoveries, though minor in the full realm of Hope-Taylor's results, allow a modification of his proposal for the architecture of the building. The information gathered in 2021 shows that five posts were set vertically at an average spacing of 1.2 m along the north face of the pit, with a minimum of four along the south face. Their positions do not correspond with those of the raking roof rafters, but would allow them to function in supporting purlins. The discovery of the slot cut along the foot of the pit sides can be suggested as a seating slot for the upright wall balks, at a stroke remedying several of the problems inherent in Hope-Taylor's reconstruction. Bedded around the full perimeter of the pit, these uprights would provide a necessary revetment to the pit sides. At the same time, we can now see the horizontal planks performing a double function as retainers not only to the outer 'skirting' of the slot holding the wattle-and-daub panels, but also to the base of the wall of the building. Estimations based upon carbonised balks within the pit indicate that these wall balks would have had a minimum height of 1.4 m to where their ends might have been fixed to the purlin, so adding further support to a steeply-pitched roof and strengthening the building.

By moving the side walls outwards against the pit sides, an even greater space is now created between these walls and the rear of the wattle-and-daub panels that Hope-Taylor regarded as full-height walls defining the space within the building. We would like to propose that the wattle-and-daub, which he envisioned as walls

Figure 6 The south-western quadrant of C1 in 2021, from the east. The grey sand slot is visible running east/west tight against the foot of the cut (left), with the post-pit midway in its length. Photograph by R. Miket © Durham University and The Gefrin Trust.

Figure 7 East-facing section of the timber slot, revealing fragmentary charcoal near its base, overlain by grey sand and a darker silt fill. Photograph by R. Miket © Durham University and The Gefrin Trust.

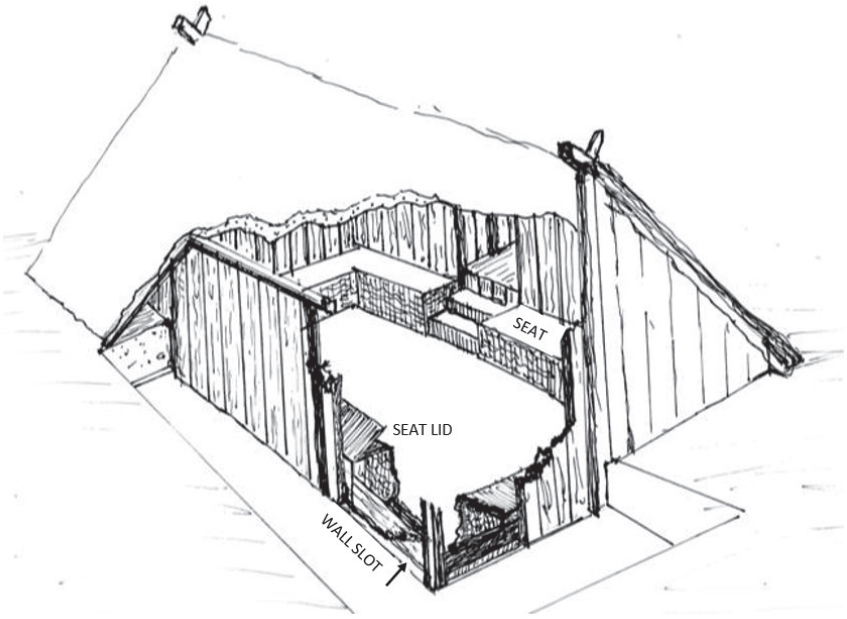

Figure 8 Reconstruction of Building C1 with internal bench seating and space for storage beneath. Drawing by R. Miket © Durham University and The Gefrin Trust.

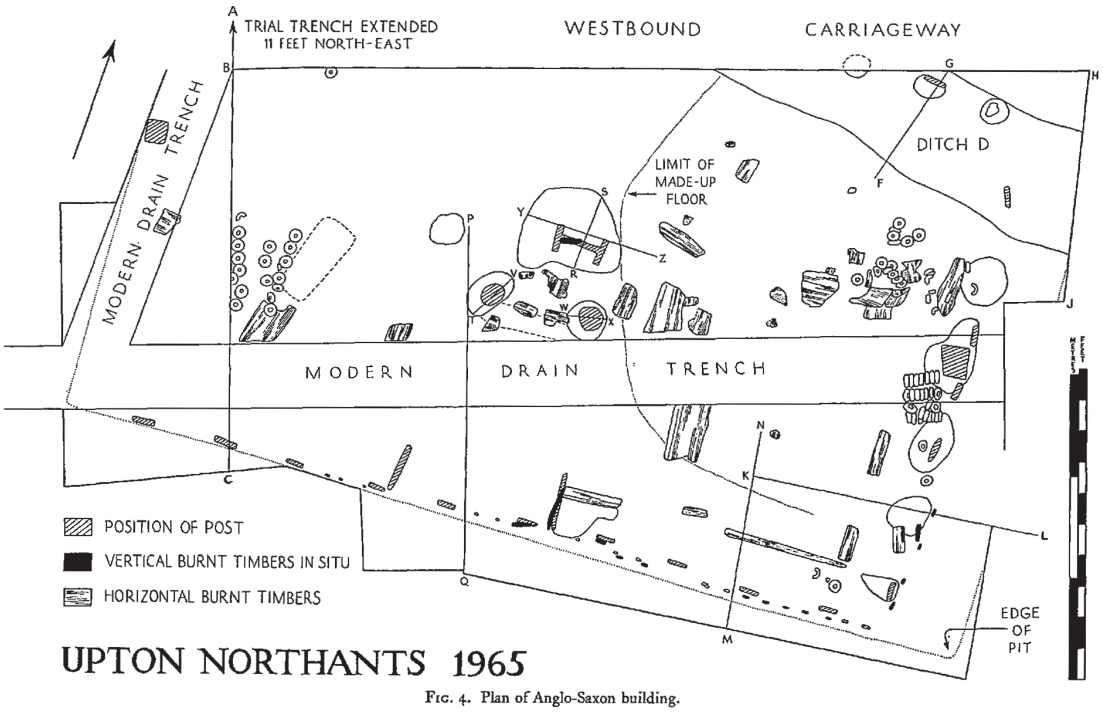

Figure 9 Plan of excavated features at Upton, Northants. From Jackson et al. *1969, Fig 4. Reproduced with author permission.*

lining an inner room space, marked instead a front face of bench seating running around the interior. This makes all the space available within the building accessible and accounts for the pattern of heavier wear in the floor around the edges of the room (Fig. 8).

On the basis of the minimum wall height calculated from the carbonised wall balks and estimation of a minimum roof angle for a thatched roof of 45° (Walker *et al*. 1996, 20), a bench seat height of 0.45 m around this interior would allow for headroom of around 0.95 m from the seating to the underside of the pitched roof. This low height excludes the possibility of a suspended floor within the building, while the well-laid floor is another obvious contradiction. With a horizontal plank base, and walling at the rear, the space created beneath this bench seating would have offered a convenient area

for storage. In this respect we may note Hope-Taylor's record of a loomweight, discovered standing 'almost vertically… against the outer edge of the horizontal plank along the north wall of the building' (1977, 88–89). This positioning is at odds with Hope-Taylor's reconstruction of this as an inaccessible space behind the balk and walling and within packing soil, but would work very well with a reinterpretation of this as a storage space beneath benching around the interior of this workshop.

Comparative Architectures

An early medieval sunken-featured building found at Upton (Northants) in 1965 shares many features in common with Building C1 and, like C1, owed the preservation of its internal features to its destruction by fire (Jackson *et al*. 1969, 206–10 and Fig. 4) (Fig. 9). The pit was estimated to have measured around 9 m in length by 5.5 m in width, with an estimated maximum depth of 0.7 m. It had an internal area of 49.5 m^2, almost double the floor area of Building C1 (25.2 m^2). As with C1, the ridge of the Upton building was carried upon a single post set at the mid-point of each end gable. It is possible that the line of post-pits running parallel with the north wall at its eastern end may represent the footing of principal rafters or flanking buttresses in a similar arrangement to C1. The vertical sides of the pit were faced with wattle-and-daub, revetted with upright planks 0.17–0.25 m in width and 0.025 m in thickness, spaced c. 0.5 m apart.

In relation to the reinterpretation of the architecture of C1, the similar arrangement of planking set some 0.6 m within the wall face in its circuit, and running parallel to it, is significant. The excavators believed it might represent 'the remains of wooden fittings or furniture which had been burnt *in situ*', and suggest the possibility of this being a form of benching or box-bedding running around the interior of the building (Jackson *et al*. 1969, 208, 214). The discovery of a cache of loomweights, 'threaded on short lengths of sticks lying between the eastern wall and the inner plank-line', also lends support to an interpretation of bench seating as providing further storage areas. Puzzled by the continuation of the planking along the line of the south wall, the excavators failed to consider the interruption in the line of the inner planking as a possible point of entry from ground level by stepped descent to the interior, an architectural model suggested by Building C1. Further information, in the form of a setting of posts near the centre of the room, was considered by the excavators as suggestive of an emplacement for a loom, and adjacent to this an 'H'-shaped timber setting they believed indicated bench seating. Such an interpretation is strengthened by the discovery of over 60 loomweights from within the building.

Final comments

On the basis of its internal evidence, we argue that Building C1 presents compelling evidence for being a thatched, tent-like timber building with a southern porched entrance leading by stepped descent to the sunken clay floor within. Here, we can suggest, bench seating ran around the whole circuit of an outer wall, broken only by the stepped descent of the entrance. The evidence from Upton, for wattle-and-daub panels and vertical planking directly revetting the pit sides, supports the revision of Hope-Taylor's reconstruction of Building C1. We can now dispense with the constructional difficulties presented by his wattle-and-daub 'walling' and over-sized pit construction. Weaving was plainly an activity carried out in the building at Upton, and from the evidence of the loomweight within C1, here also. As multi-purpose buildings, however, they would surely have served the varied needs of the seasonal round as required. The wear requiring repair, as noted by Hope-Taylor around the base of the proposed seating, would be consistent with this view.

The outcomes from our first pilot season in 2021 at Yeavering offer a rich vein of new evidence, from the awaited scientifically-dated phasing and chronology for the site to the potential offered by the environmental evidence from the newly excavated features. They also underline how much more we can elicit from this iconic site about early medieval activity, life and interactions at such royal palace complexes. Hope-Taylor, through necessity and reliance on the historical accounts, prioritised the story of the royal presence and elite nature of the site. Our discoveries in 2021, in relation to both Building C1 and the newly discovered building C0, provide balance in terms of information about craftworking, production, and potentially activities that accompanied the seasonally-determined visits of a royal entourage. In our reinterpretation of C1, we can begin to add to Hope-Taylor's story of this early medieval complex, and achieve a better sense of human industry and the lived experience of those working and supporting the better-known characters recorded by Bede in his descriptions of the Northumbrian kingdom.

Acknowledgements

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