Ironhouse Bastle: A survey of a Northumberland border farmstead

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INTRODUCTION

In December 2007, Archaeological Services WYAS undertook an earthwork survey of the remains of Ironhouse Bastle, and associated features, on behalf of Landmarc Support Services for Defence Estates, to inform the future management of the site.

Ironhouse Bastle is situated on the north-eastern edge of the Otterburn Army Training Area, and within the Northumberland National Park, approximately 4.5km to the north of the village of Elsdon (NY 9337 9831), at a height of about 250m above OD. It lies 100m to the west of Heely Dod Road on the side of a small valley, along which runs a narrow stream called Watty's Sike (Fig. 1). The site is a designated Scheduled Monument (SM 20912). The survey area consisted of a roughly triangular field bounded by a low barbed-wire fence, which encompasses the Scheduled Monument area and is classified as a Highly Sensitive Area (HSA) by Defence Estates.

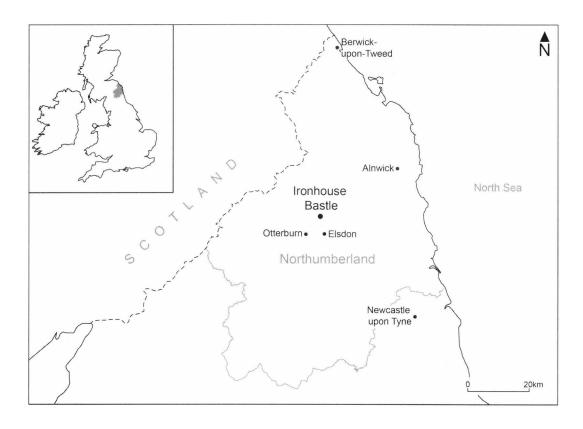
The ground cover within the survey area consists largely of rough pasture, with some natural outcrops of stone, although the eastern end of the valley is lightly wooded. It is surrounded by open moorland and rough pasture, which is crossed by numerous small streams, and includes intermittent tracts of forestry plantation. The underlying geology of the survey area comprises Tournaisian and Viséan Carboniferous Limestone (BGS 2001) overlain by slowly permeable seasonally waterlogged fine loamy and clayey soils (Soil Survey of England and Wales 1980).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Bastle Houses

Bastle Houses are defended farmhouses found in a relatively confined geographical area along the border between England and Scotland. They are located primarily in Northumberland, although there are examples in Cumbria and on the Scottish side of the border (Ramm *et al.* 1970, 74-79; Ward 1990). The name 'bastle' probably derives from the French 'bastille', and was a term in use by the 16th and 17th centuries, although at this time the name was used to describe a wider range of building types, including 'pele' towers and other defended structures. The modern use of 'bastle' was largely defined by the Royal Commission on Historical Monuments (England) in the 1960s, and applies only to the specific building type described here (McDowall and Mercer 1970, 61; Ryder 1990, 2).

The characteristic form of a typical bastle is of a rectangular two storey building, about 12m long by 7m wide, constructed of large stone blocks, with joints in-filled



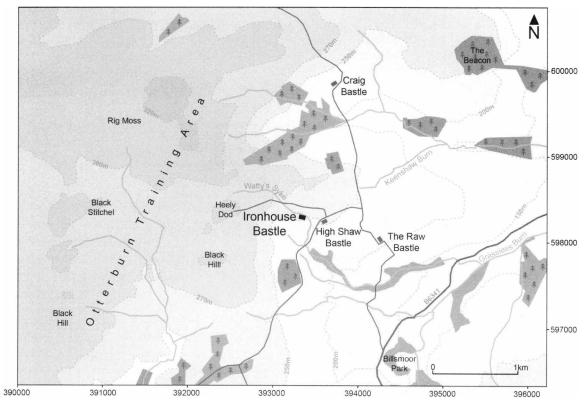


Fig. 1. Location maps

with smaller stones and mortar. On the ground floor a byre was accessed via a gable-end door which could be secured from the inside by drawbars housed in tunnels in the walls on either side. A trapdoor, or in some cases a small staircase, allowed access to the upper floor from the byre for the person securing the door. The byre was poorly lit and would have been ventilated by a number of slit-vents or small windows. In normal circumstances, the living space above the byre was accessed via a first floor door, generally in one of the long sides of the building; this would have been served by a ladder or wooden stairs, which could have been removed from above in times of danger. The upper floor was supported by either thick wooden beams or a stone vault, and would have been lit by small windows and slit-vents. The living space would have contained a fireplace, generally located at the gable-end furthest from the door, and often had cupboards built into the walls.

Bastles appear to have their origin in the late 16th and early 17th centuries when feuding, cattle thieving and banditry were rife in the remote border areas. In 1555 an Act of Parliament was passed making it compulsory for everyone living within 20 miles of the border to construct or maintain defences against such activity (Dodds 1999, 17), although it has been suggested that the majority of the known examples may post-date 1600 (Ryder 2004, 265). Despite their defensive character, bastles were essentially farmhouses with generally little architectural elaboration (Ryder 1990, 4), and they did not necessarily indicate a higher social status for the occupants (McDowall and Mercer 1970, 65). As well as defensive requirements, it has been suggested that economic factors may have influenced the construction of bastles. Low land values during the late 16th and early 17th centuries may have offered opportunities for greater returns on commercial stock rearing, with absentee landlords perhaps removing previous tenant farmers from their land and constructing bastles for incoming sheep farmers (Frodsham 2004, 105).

There are a number of 18th and 19th-century antiquarian sources that provide general references to the history of bastles and other buildings in the border area of Northumberland (e.g. Hutchinson 1776; Hodgson 1840; Bain 1894). The earliest detailed archaeological study was produced by David Dippie Dixon in his *Upper Coquetdale, Northumberland: its history, traditions, folk-lore and scenery* (1903). A series of pencil sketch drawings of Ironhouse Bastle, and the nearby High Shaw Bastle and The Raw Bastle, by an unknown artist, of probable early 20th-century date, are held in the Northumberland Archives, Woodhorn (ref. SANT/BEQ/21/4/3/12/1).

Little detailed archaeological research on bastles was carried out until the late 1960s, when the Royal Commission on Historical Monuments (England) undertook a survey of known sites. This work recorded and described about 70 bastles, including Ironhouse Bastle (Ramm *et al.* 1970, 88). Subsequent research, in particular that undertaken by Peter Ryder, has now increased the number of identified bastle sites to over 200 and further added to the understanding of the form and development of this building type (Ryder 1990; 1992 and 2004). A number of detailed archaeological topographical surveys of bastles were carried out by the former Royal Commission on the Historical Monuments of England in the late 1980s and 1990s, at three sites in the Tarset Valley; Black Middens, Boghead Bastle and Shilla Hill Bastle (Bowden 1987; Lax 1997; Chandler 1997) a synthesis of which was published in 1999 (Lax 1999). An aerial photographic survey of the Otterburn Training Area, including the area around Ironhouse Bastle, was carried out in the mid-1990s (Gates 1996).

IRONHOUSE BASTLE

The earliest record of a possible settlement at Ironhouse comes from an *inquisition* post mortem dating to 1398 (Hedley 2004, 311). This describes land named as Hernehousefeld, with herne being a medieval form for 'iron'; indeed the area around Ironhouse contains the remains of numerous bloomery slag heaps (Hedley 1998; Hedley 2004, 311-312). The tracts of broad ridge and furrow surrounding the site, clearly visible on aerial photographs (e.g. Gates 1996), suggest that extensive arable cultivation was carried out around the settlement during the medieval period. Much of the ridge and furrow within Northumberland National Park is thought to have been in use during the 13th century (Frodsham 2004, 84), and it seems likely that the fields around Ironhouse were also under cultivation at this time.

Although there is no precise dating evidence for the construction of Ironhouse Bastle itself, comparisons with other bastles in the area, such as High Shaw Bastle and The Raw Bastle suggests a date in the early 17th century (McDowell and Mercer 1970, 61; Ryder 1990, 1). The earliest cartographic evidence for Ironhouse Bastle is the Elsdon enclosure map of 1731 (Robertson 1731; Fig. 2). This shows a single building on the site named as 'Iron Houfe' situated at the north-eastern corner of a field marked 'Ancient Ground', perhaps due to this being an area of earlier enclosure. The field's northern edge appears to have been defined by Watty's Sike, 'Watt Strother Syke' on this map. A large area of land stretching to the west of Ironhouse is named as 'Iron Houfe Allotment' on the enclosure map, and another building is also shown situated to the west of the bastle on Heely Dod.

The Elsdon tithe map of 1840 shows two buildings at Ironhouse, a rectangular building to the west, presumably the bastle, and a smaller building to its east (Ankle 1840). During this period Ironhouse and the land to its south were under the ownership of a Nicholas Maughan, who also owned High Shaw Bastle. Indeed, these properties are recorded as one entry on the Tithe Award, with Ironhouse being occupied by a Thomas Snaith at this time (Ankle 1840; see also Hodgson 1840, 152).

By the 1860s it appears that Ironhouse Bastle was no longer occupied. The First Edition 25 inch Ordnance Survey map, surveyed in 1863, marks the site as 'Peel (In Ruins)' (Ordnance Survey 1866; Fig. 3). This depicts the bastle as a roofless structure, with another similar sized building adjoining its western side, and two square enclosures to the west of this. A smaller square structure is shown at the bastle's eastern end from which a boundary runs towards the south-east. A sub-rectangular enclosure is also marked to the south of these buildings.

The Second Edition 25 inch Ordnance Survey map, revised in 1896, shows little change in the general plan of the structures at Ironhouse, and it is still marked as 'Peel (In Ruins)' (Ordnance Survey 1897). It is probable that, although the bastle itself was in a ruinous state at this time, the buildings and structures on the site still served an agricultural function, if not a domestic one. Indeed, the small enclosure at the bastle's eastern end is marked as a sheepfold and the building adjacent to the western end of the bastle is still depicted as a roofed structure, and was perhaps in use as a barn or sheep byre. Continued agricultural use into the 20th century is suggested by new north-south boundaries connecting the buildings with the sub-rectangular enclosure to the south, which are shown on the 25 inch Ordnance Survey map of 1922 (Fig. 3). These defined two new enclosures or pens, apparently connected by a sheep race, along which sheep would have been herded.

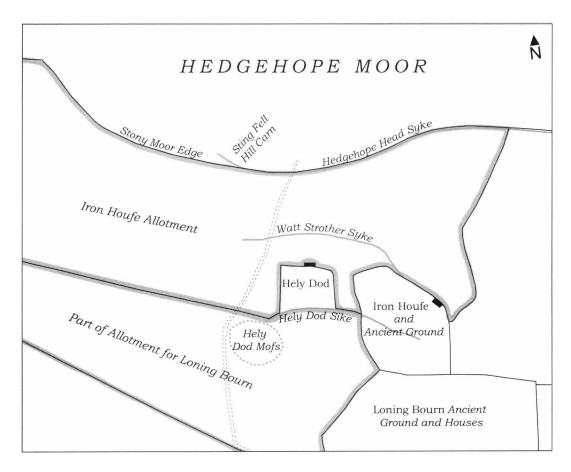
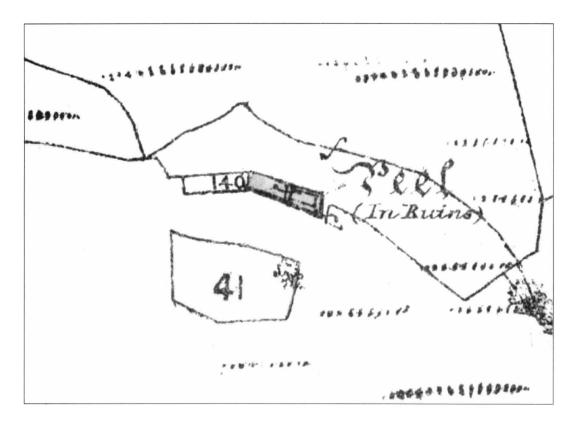


Fig. 2. Re-drawn extract from the Elsdon enclosure map of 1731 (Northumberland Archives, Woodhorn, ref. QRD 3/1)



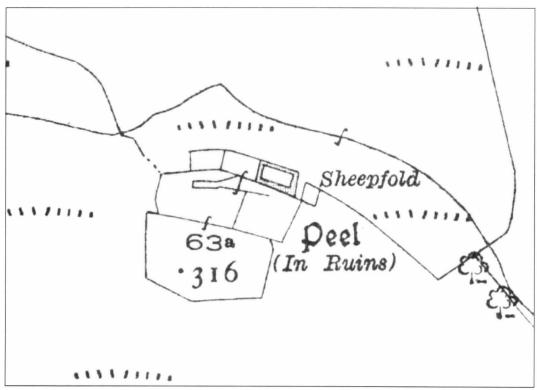


Fig. 3. Extracts from the First Edition Ordnance Survey 25 inch map of 1866 (top) and the Ordnance Survey 25 inch map of 1922 (bottom), showing Ironhouse Bastle and associated buildings and structures (not to scale)

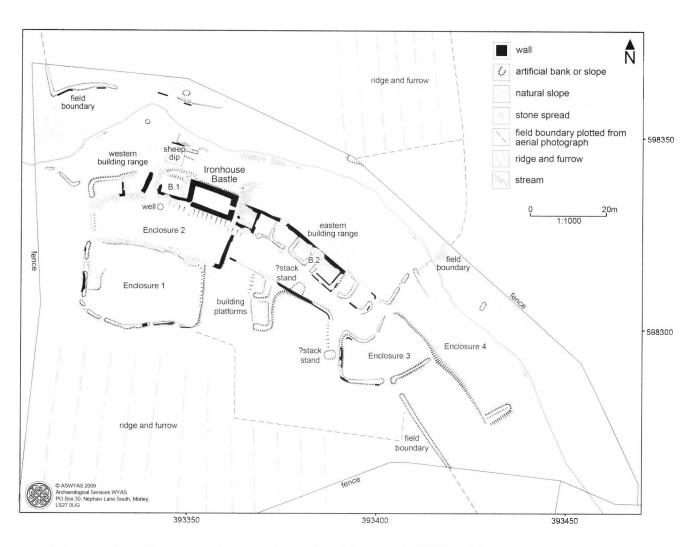


Fig. 4. Survey plan of Ironhouse Bastle and associated features (1:1000 scale)

SURVEY DESCRIPTION (Figure 4) BUILDINGS

Ironhouse Bastle

Ironhouse Bastle measures 13.3m long by 6.8m wide, and forms a slightly lopsided rectangle in plan, with a doorway in the eastern gable end. The walls are constructed of large roughly coursed blocks, with mortar bonding visible in places, built on a foundation of large boulders that can be clearly seen exposed at the base of the bastle's northern wall. The walls are about 1.3m thick, and survive to a maximum height of approximately 4.5m on the northern side and the eastern gable end, and to about 4m high at the western gable end, although the wall of the southern side of the bastle survives only to a maximum height of about 2.2m (see Figs 5-7). The quoins at the building's corners are of cut rectangular blocks, about 0.4m high.

The doorway to the ground floor byre, in the eastern gable end, is 1.67m high and 0.77m wide, and leads into a short passage which widens to about 1.17m internally, perhaps designed to allow greater movement for any defender should the door itself have been breached during an attack. The doorway is capped by a chamfered lintel with a relieving arch above, and two shallow depressions in the lintel could have held some form of fixture. Circular depressions on the inside-right of the door sill and on the bottom of the lintel would have held a harr-hung door, which could have been secured from the inside by two drawbars. These drawbars were housed in tunnels within the walls on either side of the doorway, each of which are about 1.2m in length and about 0.14m square. Two small indentations, about 7cm long by 2cm wide to the inside-left of the doorway, may have been catches for a door latch for everyday use. A recess about 0.18m wide by 0.55 long, on the northern side of the passage wall, could have been used as a small cupboard. A rectangular recess on the external wall to the north of the doorway may be a later addition, or be due to damage, as it would have allowed access to the drawbar tunnel from the outside.

The byre would have been ventilated by small slit-vents situated at the bottom of the western gable-end wall and in the southern wall. A small rectangular opening in the northern wall may also have acted as a vent. The first floor of the bastle would have been supported by a timber floor and a number of beam slots, varying in width between 0.2m to 0.3m, are visible on the internal side of the northern wall of the bastle. A flat stone projecting from the inside of the western wall may have supported a first floor hearth, and an indent in the northern end of the same wall could have acted as a cupboard space. There is a possible triangular slit-vent in the upper part of the western gable-end wall, but no evidence of first floor windows survives. The inside of the bastle is now filled with stone building debris, although this appears to have been partially cleared and mounded towards the centre of the building to allow access around it, perhaps by the army at some time.

Western building range

Abutting the western end of Ironhouse Bastle are the remains of another stone building (B.1). This is shown on the Ordnance Survey map of 1866 as the only roofed structure surviving on the site at that time, and could have been the last house to be occupied at Ironhouse. It measures 6m wide by 9m long, and is defined on its

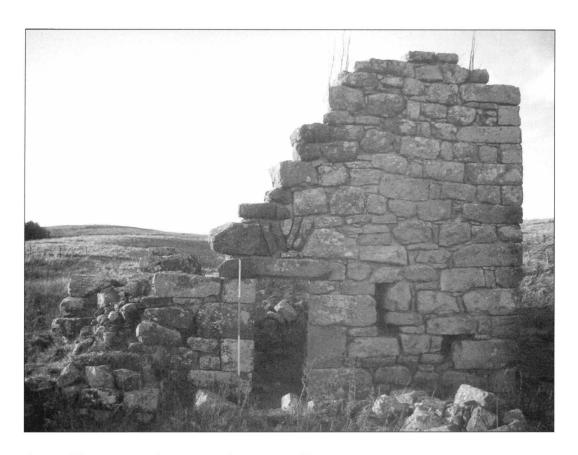


Fig. 5. The eastern gable-end and byre door of Ironhouse Bastle



Fig. 6. Ironhouse Bastle, looking north-east



Fig. 7. Ironhouse Bastle looking south-east along Watty's Syke, with the remains of High Shaw Bastle visible towards the top left

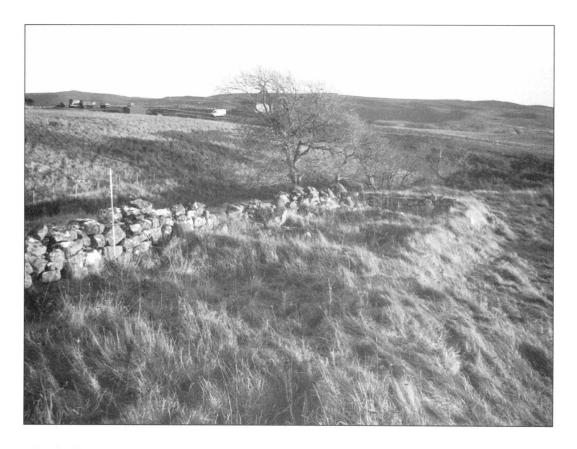


Fig. 8. The remains of the eastern building range, looking eastwards

southern side by a wall about 0.75m wide and 1.2m high, of worked stone. It is not clear if the north-western wall and part of the northern wall still partially survive, as their line is obscured by stone building debris, although most of the northern wall is no longer visible on the surface. A blocked doorway, about 1m wide, is situated in the southern wall of the building, at its south-eastern corner.

To the west of this are the remains of two further structures, which appear to be shown as small pens or agricultural buildings on the Ordnance Survey map of 1866. The easternmost of these is rectilinear in plan, about 4.5m wide and 5m long, with stone spreads defining its northern and southern sides, possibly obscuring any *in situ* walling beneath. Its eastern side is defined by a length of wall which could at one time also have formed the western wall of the building abutting the bastle (B.1). The angle that this wall appears to cut across this structure suggests that B.1 may have been constructed over its eastern end. The westernmost structure is 5m wide and 9m long, and is defined to the south by a stone spread, to the north and west by a bank about 1.5m wide and 0.5m high, and to the east by a length of stone wall approximately 0.75m wide and surviving to a height of 0.5m. A break in the south-west corner of this structure may reflect an entrance or doorway.

Eastern building range

To the immediate east of Ironhouse Bastle are the remains of a linear range of buildings surviving as sections of exposed stone walling, turf-covered walls, earthworks and stone scatters (Fig. 8). These are aligned approximately north-west to south-east, with the individual buildings built onto stepped platforms, sloping gradually downwards towards the south-east. The northern side of the eastern building range is defined by a single length of stone wall, about 1.5m high and 1m wide, suggesting that the buildings which comprised this range may have originated in a single phase of construction. There is a slight change in the wall's alignment towards the south-east about 12m along its length from the bastle, but this appears to reflect the way in which the wall follows the natural topography of the valley side, rather than a difference in building phase.

The structure closest to the bastle within the eastern building range is rectangular in plan and measures about 6.3m by 5m, and is defined by stone walls surviving to a height of 1.5m. There is no clear wall surviving on its western side, although the substantial spreads of stone building debris which fill the interior may obscure further *in situ* remains. This structure is shown on the First Edition 25 inch Ordnance Survey map of 1866 and by 1896 was being used as a sheepfold (Ordnance Survey 1866; 1897; see Fig. 3). This later use may account for the surviving height of the walls, compared to the other buildings within the eastern building range, which may have been rebuilt during the late 19th century over earlier building foundations, in order to hold animals. To the immediate east of this are the remains of two further buildings, both rectangular in plan and defined by turf covered walling between 1m and 1.75m wide and surviving to about 0.5m high. The westernmost of these is 5m wide and 6.5m long with an entrance at its south-west corner; the other measures 6.5m wide and 6.2m long, with an entrance at the south-east corner. A break at the northern end of the wall dividing the buildings could be a doorway connecting the two.

Adjacent to these appears to be the site of a larger building (B.2) possibly the remains of a house. This measures 16m by 6.5m and is divided into two rooms accessed via doorways leading off of a central corridor, which are now largely filled with stone

building debris. The western room is approximately square, measuring 4.5m by 4.4m, with the eastern room being slightly larger, measuring 4.5m by 5.5m. The remains of the building are marked by turf covered stone walls with surviving lengths of wall structure visible in places. These are up to 1m wide, and survive to a height of between 0.2m and 0.5m. The south-eastern wall of the building appears to be formed by a right-angle continuation of the wall which defines the northern side of the eastern building range.

To the south-east are the remains of two further structures which are on the same alignment, but do not appear to have shared the same northern wall as the other buildings in the eastern range. The more western of these is 4.4m wide and 6m long and defined on its north-western side by the south-eastern wall of the adjacent building (B.2), and on its north-eastern side by a slight north-eastward facing scarp. Its south-eastern and south-western walls largely comprise turf covered stone, and are about 1.75m wide and 0.5m high, with an entrance in their south-west corner. To the south-east are the remains of a slightly larger structure, 6.2m wide by 6.4m long, with a ruinous section of stone wall and stone scatters defining its northern side. Its south-eastern and south-western sides are defined by turf covered walls, between 0.8m and 1.8m wide and surviving to a height of 0.5m.

Other buildings

About 10m to the south of the eastern building range are two rectangular probable building platforms situated adjacent to each other, orientated approximately north to south. The more northerly of the two is about 4m long and 2.5m wide, and is defined by an L-shaped bank about 2m wide and 0.5m high on its eastern and southern side, and a western facing scarp about 0.3m high on its western side. It is aligned at an approximate right angle to a length of low bank and turf covered wall which extends towards the south-east for about 30m from the eastern side of Enclosure 2 (see below).

The southern building platform is about 6m long and 4.5m wide, and is defined on its eastern side by a bank approximately 2m wide, which sits on the top of a well defined easterly facing scarp. A narrow break in the bank separates it from a more substantial length of bank which defines the building platform's southern side and is about 2.5m wide and 0.3m high. Its western side is defined by a slight westerly facing scarp about 0.2m high.

ENCLOSURES AND FIELDS

Surrounding Ironhouse Bastle, and its adjacent buildings and structures, are a series of enclosures, together with the remains of more extensive field systems, including field boundaries and the remnants of ridge and furrow cultivation surviving as earthworks. These features represent the remains of various phases and forms of agricultural activity that have been undertaken in and around Ironhouse since the medieval period. A sub-rectangular enclosure (Enclosure 1) is situated 11m to the south of Ironhouse Bastle, and measure approximately 20m wide by 32m long. It is bounded on its western and southern sides by substantial turf-covered walls, approximately 1.75 m wide and surviving to a height of about 1m, which have been cut through by a number of later breaks. The eastern side of the enclosure is defined by a sharp eastward facing

scarp about 0.5m high, with a slight back scarp visible along its northern interior end. The northern side of the enclosure is bounded by a ruinous section of stone wall, approximately 0.5m high on the interior and 1.25m high on its northern exterior side, where the ground level is lower. A wide break in the western side of the enclosure may be an entrance, although another possible entrance could be through the break in it north-western corner. Enclosure 1 was certainly in existence by the mid-19th century when it is shown on the First Edition 25 inch Ordnance Survey map of 1866 (see Fig. 3). Another enclosure (Enclosure 2) appears to be defined by the northern boundary of Enclosure 1 on its southern side, and by a slight east-facing scarp and stone spread to the west. On its eastern side it is bounded by a length of stone wall, Im wide and 0.8m high. The eastern wall of Enclosure 2 appears to abut the north-eastern corner of Enclosure 1, and this length of wall is of a different construction suggesting it is a later addition. Indeed, the eastern and western boundaries of Enclosure 2 are not marked on the Ordnance Survey mapping until the early 1920s (Ordnance Survey 1922; see Fig. 3), suggesting this enclosure is of a late 19th or early 20th century date. To the south-east of the eastern building range is an irregular shaped enclosure, Enclosure 3, measuring approximately 12m by 20m. It is bounded by turf covered walls, about 1.75m wide, varying in height between 0.3m and 0.5m. It has two entrances, on its northern and southern sides, approximately 0.8m wide, with another possible entrance in its northern corner, which may have provided access to a further enclosure to the north-east (Enclosure 4). Enclosure 4 is situated on a terrace of lower ground on the valley side to the east of Enclosure 3, at the south-eastern end of the survey area. It is defined on its southern side by an apparently artificially steepened scarp, between 1m and 1.5m high, and on its northern side by a steep natural slope descending north-eastwards to Watty's Syke. At its south-eastern end Enclosure 4 is defined by a substantial length of bank, about 1.5m high on its southern side, and measuring 4.5m wide and 8m long. The north-western side of Enclosure 4 is defined by a small section of bank which sits above a slight scarp between the lower ground of Enclosure 4 and the higher ground to the north-west.

Field boundaries

The ends of two large field boundaries were recorded at the north-western and southeastern corners of the survey area surviving as turf covered walls, or earth banks, approximately 2m to 2.5m wide and up to 0.75m high. A stone scatter on the northeastern side of the survey area also appears to be the end of a field boundary. These survive as earthworks, or can be seen from aerial photographs, continuing outside of the survey area, defining larger fields (Gates 1996). A ditch, possibly marking the southern edge of the settlement area at Ironhouse, and delineating it from the area of ridge and furrow to the south, can also be seen on aerial photographs supplied by Defence Estates (Otterburn). This ditch runs south-east from the corner of Enclosure 1, turning south for approximately 20m and to the east for a further 45m, before turning north again for a further 7m; however, this feature could not be identified on the ground at the time of survey, possibly due to the height of the grass and reed cover over the area. The earthwork remains of probable medieval ridge and furrow can also be seen on the valley side to the north of Watty's Sike, outside of the survey area, aligned approximately north-south. Further remains of ridge and furrow can also be seen on aerial photographs continuing into the survey area from the south (Gates 1996).

OTHER STRUCTURES

Two sub-circular platforms have been identified within the survey area. One is situated to the immediate south of the eastern building range and measures about 3.5m by 4.5m, and is 0.3m high, and abuts the line of the low wall which runs south-east from Enclosure 2. Another platform lies to the immediate west of Enclosure 3, and measures 3.5m by 4m, and is 0.5m high. The function of these is unclear, although they could be the remains of stack stands, platforms on which to pile winter fodder for animals. These are found throughout Northumberland, although they are generally larger in size than the platforms at Ironhouse, and are often surrounded by a bank and ditch to protect the fodder from other animals (Ramm et al. 1970, 54). A well is situated to the west of Ironhouse Bastle, 2m to the south of the building abutting its western side (B.1). It is about 1.5m in diameter and appears to have originally been surrounded by a number of large stones; it is now filled by stone and vegetation. The remains of a probable 20th-century sheep-dip are also situated 8m to the north-west of Ironhouse Bastle. This structure comprises a rectangular tank, 1m wide and 3m long, constructed of brick and concrete, with a ramp at its western end, and two areas of concrete hard-standing adjacent to it.

CONCLUSION

In size and plan Ironhouse Bastle is a typical example of a Northumberland bastle house, and contains many of the commonly found features of such buildings, such as a gable-end door with drawbar tunnels, slit-vents in the byre, first floor cupboards and a stone slab to support a hearth. Unlike the nearby bastles at High Shaw, The Raw and Craig, the upper floor of Ironhouse Bastle was supported by timber beams, rather than a stone vault. Although this is not uncommon, it may suggest the work of a different builder, a different period of construction, or perhaps that the owner could not afford such a vault.

Ironhouse Bastle was in a ruinous state by the mid-19th century, when it was already roofless. The poor condition of the upper parts of the first floor walls, and the southern wall, may be due to the collapse, or demolition, of the roof and the first floor around this time, subsequently weakening the remaining structure. The apparently deliberate piling of stone building debris in the centre of the bastle indicates that there has been some clearance, and perhaps removal, of stone from the site. Despite this, the surviving structure appears to remain largely in the form described in the late 1960s and early 1990s (Ramm *et al.* 1970; Ryder 1990). The early 20th-century sketch of the interior of the eastern gable-end of Ironhouse Bastle, although perhaps not completely accurate in its depiction, shows this end of the bastle in a similar state to its present condition.

Although it is the largest extant structure on the site, and the most architecturally significant building, Ironhouse Bastle represents just one element of a more complex pattern of settlement and activity. If the association of *hirnehousefeld* with the Ironhouse site is correct, then there may have been activity here since at least the late 14th century, in which case the construction of Ironhouse Bastle would not have represented the first phase of the settlement's occupation. The remains of ridge and

furrow surviving in the surrounding area shows that the area was under cultivation in the medieval period and the fact that this appears to respect the edge of the southern side of the settlement, suggests that the ridge and furrow is contemporary with a phase of occupation. It is therefore possible that some of the features still visible on the ground represent the remains of medieval structures and buildings, or at least pre-date the construction of the bastle itself. Indeed the construction of Ironhouse Bastle may be seen as representing a temporary break in the local building tradition on the site, with the construction of such a substantial fortified building, in contrast to possible earlier less substantial farm buildings, being a reaction to the relatively short period of instability in the border areas during the 17th and 18th centuries.

The eastern range of buildings at Ironhouse probably includes the remains of at least one dwelling (B.2) together with byres and outbuildings, probably all originating in a single phase of construction. In size and plan these buildings could be equated with late medieval shielings, or other small upland dwellings found in Northumberland. Such a comparison is however complicated by the linear ranges of 18th and 19thcentury buildings associated with other bastles, such as Sinderhope Shield (Ryder 1992), which also share similarities in form to the earlier, medieval, buildings. The eastern building range at Ironhouse is not depicted on any mapping from the mid-18th century onwards, and may have gone out of use by this time, suggesting that these buildings were earlier in date. The building abutting the western side of the bastle (B.1) is clearly a later addition. Its walls are nearly half the thickness of those of the bastle and it has a ground floor door on its long side, perhaps indicative of more stable times. It is also substantially larger than the other buildings which form the eastern range. The cartographic evidence indicates that this building was the last roofed structure on the site, and may have been the last house to be occupied here. Permanent occupation at Ironhouse probably ended in the mid-19th century, although the site continued in agricultural use into the 20th century.

The relationship between bastle houses and adjacent or associated structures at similar sites has not previously been examined in detail (Lax 1999, 172), and although relative stratigraphic relationships may be established by detailed surveys of remains, as has been carried out at Ironhouse, further investigations, including archaeological excavations, would be required to provide firm dating evidence for such relationships.

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