Archaeology Wales

Llanwnwr Farm, Goodwick Pembrokeshire

Archaeological Watching Brief

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Report No. 1312

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December 2014

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Summary

An archaeological watching brief was carried out during the conversion of a former waterwheel building, and later pig sty, into holiday accommodation. The site dates from the nineteenth century, but lies in a landscape of recorded archaeological significance, and adjacent to the site of a medieval chapel and burial ground.

The watching brief was undertaken as a planning condition and followed a WSI approved by Dyfed Archaeological Trust – Heritage Management (DAT-HM) in 2013.

Details relating to the history of the waterwheel building were revealed during the work, but no features of archaeological significance were identified.

1. Introduction

In 2013, Archaeology Wales was commissioned to undertake an archaeological watching brief during groundworks associated with the conversion of a former waterwheel building at Llanwnwr Farm, Goodwick, Pembrokeshire (NGR: SM 89530 40472; fig. 1; AW project number 2036) into holiday accommodation. The local planning authority is Pembrokeshire Coast National Park Authority (PCNPA) and the planning application number is NP/11/199.

The watching brief followed a Desk-Based Assessment that was carried out in 2011 (AW report number 1039), which revealed that the land on which the farm is built was occupied by a chapel and burial ground in the early medieval period. The local landscape also contains evidence for occupation from the Mesolithic period onwards. As a consequence, Dyfed Archaeological Trust – Heritage Management (DAT-HM) recommended that a watching brief should be carried out during any groundworks associated with the conversion.

The watching brief was undertaken between April and July 2014 by Jerry Bond, Site Archaeologist for Archaeology Wales.

2. Site Description

2.1 Location, Geology and Topography

The proposed area of development is located on the western edge of the Pen Caer Peninsula (Strumble Head), north Pembrokeshire, at around 64m AOD. The site lies within the Pembrokeshire Coast National Park and immediately east of the Strumble Head to Llechdafad Cliffs SSSI.

The underlying geology comprises Ordovician Strumble Head Formation igneous rocks (BGS 2014).

2.2 Historic Background

The proposed development site is located within and area known to have been occupied since at least the early medieval period. The records suggest that a small early medieval settlement

was located on the site of Llanwnwr Farm, associated with a chapel and a burial ground. The presence of two incised early Christian stones on the farm, which would probably have been used as grave markers, attests to the religious significance of the site in the early medieval period. The HER lists a number of medieval sites within a 1km radius of the farm, indicating that the Pen Caer Peninsula was relatively densely populated in the early medieval period.

A cist cemetery was reported discovered on the farm in 1925, although its exact location is unknown (recorded simply as in the 'fold-yard'). The morphology of the cists is also unknown, however they were recorded as containing cremated bone and could, possibly, be Bronze Age in date – although, given the history of the site, they are more likely to be associated with the medieval occupation. There are a number of prehistoric monuments recorded within wider landscape, including a Mesolithic flint scatter, a possible Neolithic chambered tomb, several probable Bronze Age standing stones and a find spot of possible Iron Age date. These monuments demonstrate that the Llanwnwr area has been a focus for occupation for the last 8000 years.

In the post-medieval period settlement continued at Llanwnwr. The modern farmhouse is of eighteenth century date, and most of the farm buildings appear on the 1843 Tithe Map. The exception is the former waterwheel building and sluice pond which are first depicted on the 1889 1st Edition OS map. The farmstead is reported to have been used by the French army during the failed invasion of Britain in 1797.

3. Results of the Watching Brief

The watching brief was undertaken during works in and around the former waterwheel building and during the excavation of service trenches to the north and west of the building.

3.1 Former Waterwheel Building

The former waterwheel building [104] is located on the eastern side of the farm, immediately north of the sluice pond. The building and pond date from the late nineteenth century and were used to house and drive a waterwheel that powered agricultural machinery in the nearby farm buildings. The wheel had gone out of use by the 1950s and the building was converted into a pig sty (G. Richards *pers comm*), with an extension on the northern side of the building for the pens. The sluice pond remains intact, although has partially silted up (fig. 3).

Prior to the watching brief starting, the modern extension to the building had been removed and the concrete floor outside the building broken up and removed (fig. 4). The concrete (100) within the building was removed under archaeological supervision and was shown to be 0.1m deep and overlying a loose rubble deposit (101) (fig. 5). The rubble filled the whole of the interior of the building and varied from 0.22m deep on the eastern side of the structure to 1.8m deep on the western side. The rubble overlay a further deposit of soil and rubble (102), 1.5m deep, which contained lumps of clay and twentieth century artefacts including glass and brick fragments (not retained).

The soil and rubble deposit (102) overlay the original floor of the building, which comprised loose laid stone slabs (106) (figs. 6 and 9). The floor slabs had been laid partly onto the natural geology (103) and partly onto a patchy deposit of dark brown silty clay (112). The floor slabs had been disturbed prior to the infilling of the building with rubble, with much of the western section lifted. Several slabs were also lifted during the removal of the rubble fill. Along the eastern wall of the structure a flight of stone steps (108), leading from the door on the eastern side of the building to the sunken floor, survived in a fragmented state. The stone steps (108) were built on top of the bedrock, which had been excavated out to form the sunken building, and built using stone rubble bonded with a pale off white lime mortar (figs. 6 and 9).

The wheel pit (105) was located on the western side of the building, orientated north/south (figs. 7, 8 and 9). It measured 1m wide by 2m deep (from the floor of the building) and was filled with loose rubble (101). A number of twentieth century artefacts were identified within the rubble in the wheel pit, predominantly broken metal tools and unidentified lumps of rusty iron. Sherds of twentieth century pottery and two leather boots (both left feet) were also identified. Due to the modern nature of the finds none were retained for analysis. The wheel pit was dug into the bedrock and had a thin layer of patchy silty clay covering the base (no context number assigned). Metal fixings, to hold the wheel in place, were built into a recess in the western wall of the structure and a granite slab containing holes for fixings was located on the eastern side of the pit. The inlet, to feed the wheel from the sluice pond, was located in the south-western corner of the building, approximately 4m above the base of the wheel pit (fig. 8 and 9). This would have fed the wheel at its mid-point, making it a breast shot wheel system. The water outlet was located in the north-western corner, at the base of the wheel pit, and fed the water into a channel which took it northwards away from the building (fig. 8 and 9).

3.2 Ground around the waterwheel building

The ground on three sides, west, south and east, of the waterwheel building was reduced to expose the walls of the structure and allow them to be consolidated and repointed. This work exposed the external side of the water inlet, which had been blocked, and a channel diverting the water from the sluice pond around the building (fig. 10). The inlet blocking is likely to have occurred at the time that the building was converted into a pig sty, while the diverter channel may have been in use throughout the life of the waterwheel, used to allow water to flow from the sluice pond when the wheel was not in operation. On the western wall a large stone was identified that had traces of metal fittings on it. It is likely that this stone and its fittings were related to the take-off drive that was associated with the wheel.

The ground to the north of the structure was reduced to reveal the line of the water outlet channel [109], which flowed northwards from the building to an outflow around 15m to the north-east (fig. 11). The channel was fed from the water outlet in the north-western corner of the building, and had been dug into the bedrock. The outlet channel was not excavated.

On the western side of the structure a stone built box culvert [113] was identified. This ran roughly parallel to the structure and drained into the diverter channel (fig. 12). The culvert was well built, slab lined with a slab covering, and was filled with a fine dark brown silty deposit (114) from which sherds of modern ceramics were recovered. This is likely to be a drain associated with the farm yard and buildings to the west that was routed into the outlet channel to facilitate drainage.

A number of service trenches were excavated to the west and north-west of the structure (figs. 13 and 14). All the trenches were around 0.7m wide and cut to the natural, which was identified immediately below the topsoil. No finds or features of archaeological significance were revealed.

4. Discussion and Conclusions

The watching brief during the works to convert the former waterwheel building into holiday accommodation has revealed details about the changes the structure went through during its use for agricultural purposes. The structure appears to have been built in the later nineteenth century and housed a waterwheel, fed from a sluice pond immediately to the south, which powered machinery in the nearby sheds. The wheel sat in a pit on the western side of the building and was held in place by fixings attached to both the western wall and the floor of the building. The building was entered through a door in the eastern wall, where stone steps lead down to a sunken floor paved with stone slabs. The building had been dug into the bedrock to allow it to be sunk below the level of the sluice pond. On the western side of the building a diverter channel was built to take water from the sluice pond into the outflow channel which drained down the slope to the north. A culvert also drained into the outflow channel, probably bringing water from the farmyard to the west. In the mid-twentieth century, after the waterwheel had gone out of use, the building was converted into a pig sty. This involved blocking up both the water inlet and outlet, and backfilling the interior of the building to raise the floor level to that of the ground outside. A concrete floor was laid over the backfill, and concrete applied to the internal walls, and a pen area created to the north of the structure. This involved knocking down the northern wall of the building. All of the finds associated with the infilling of the structure indicate that it occurred around 1950.

The excavation of trenches around the building revealed the line of the outflow channel, but no other features of archaeological significance were identified.

5. Acknowledgements

Thanks to Jerry Bond for undertaking the watching brief, and to Guy and Howell Richards for their assistance throughout the project.

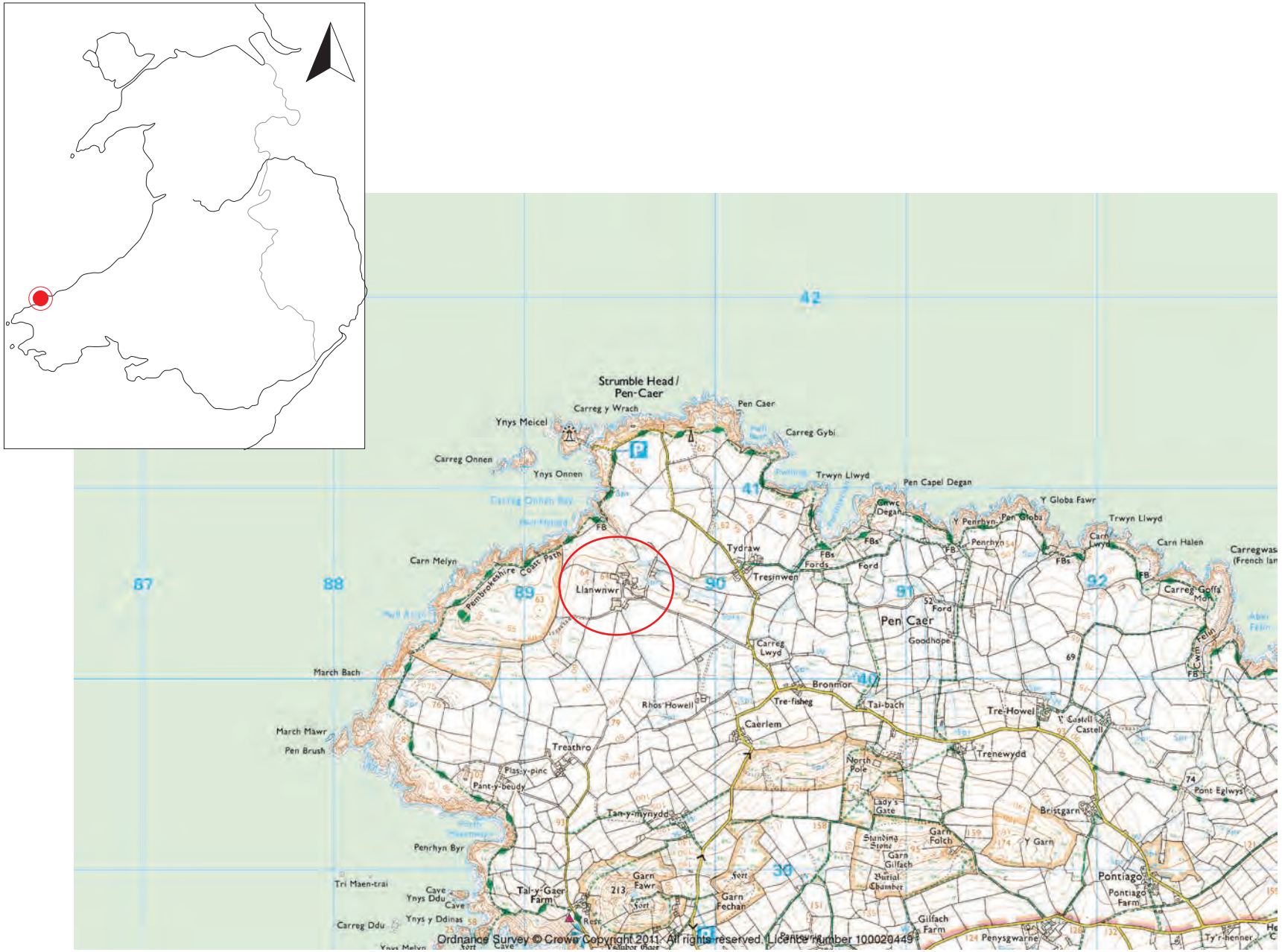

Fig. 1
Location of
Llanwnwr Farm

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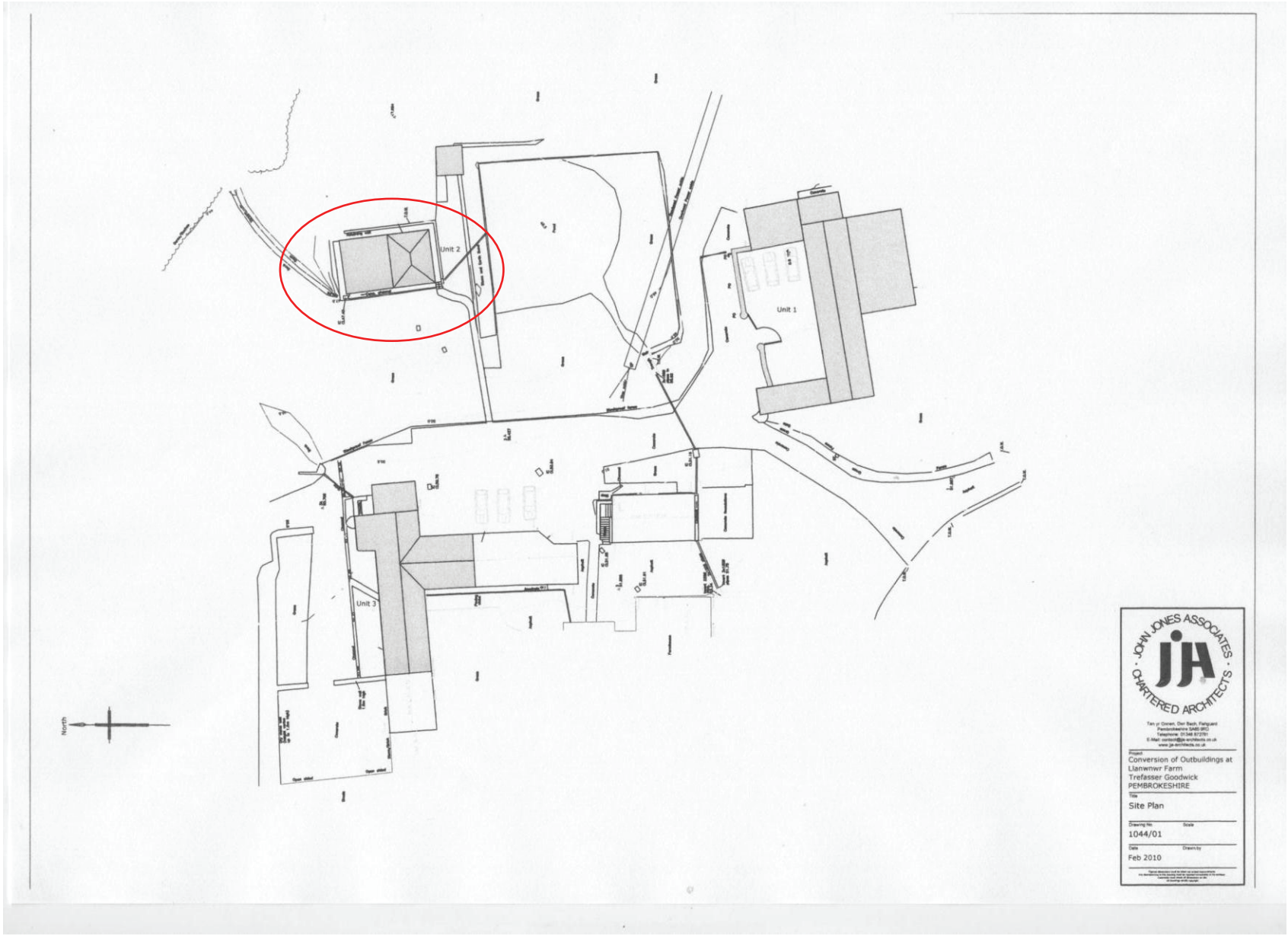

Fig. 2
Plan of farm buildings showing location of former waterwheel structure

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Fig. 3
View north over sluice pond towards the waterwheel building

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Fig. 4
Concrete extension being removed from northern end of building

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a. Intact concrete floor and wall covering

b. Section through concrete floor and underlying rubble deposit

Fig. 5
Interior of the building

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Fig. 6
Intact floor slabs (106)
and remains of steps (108)

Fig. 7
Wheel pit following removal of rubble

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a. Water inlet

b. Water outlet

Fig. 8
Wheel pit following removal of rubble

Fig. 9
Plan of interior of structure

Fig. 10
View of blocked water inlet

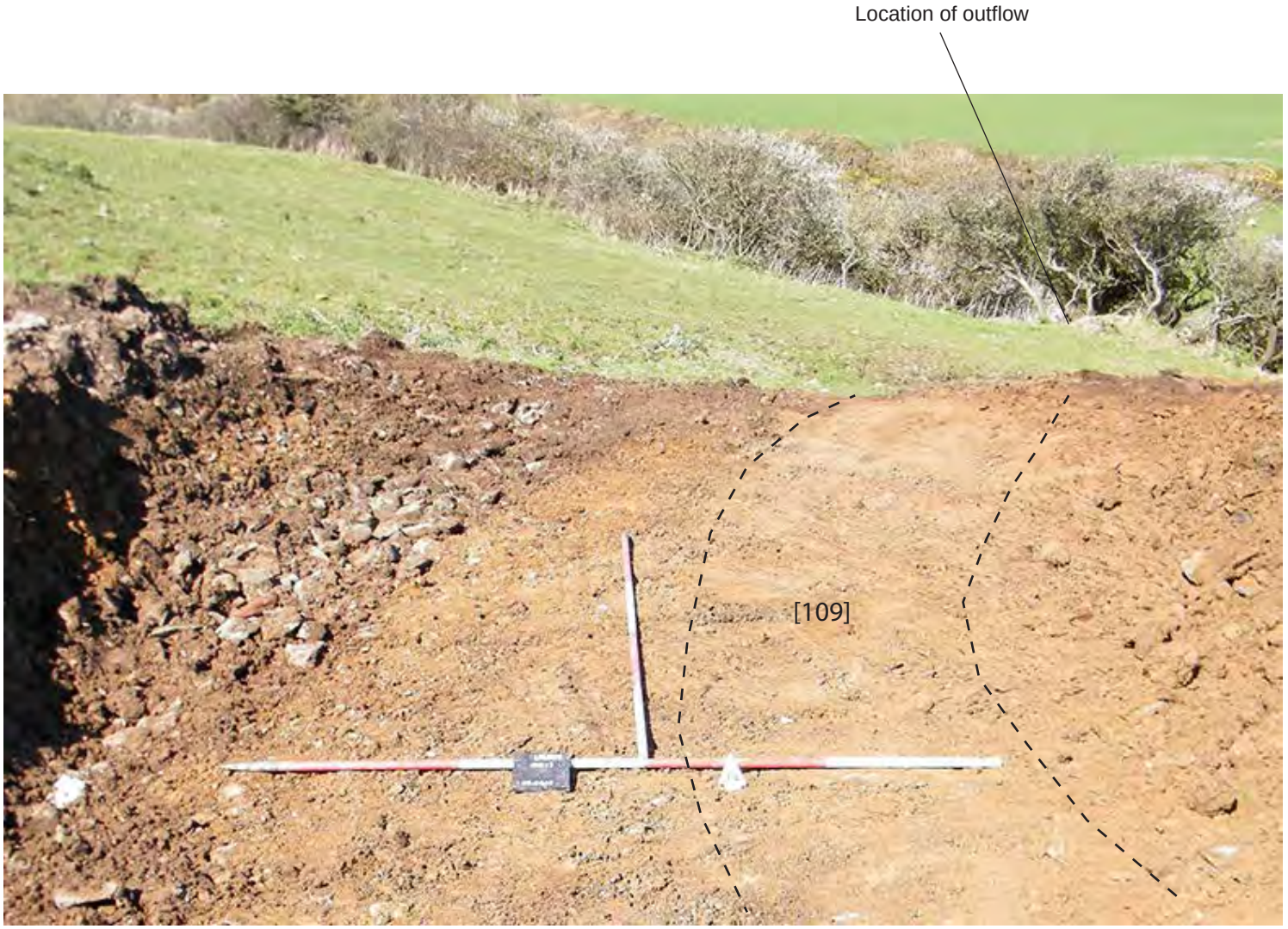

Fig. 11
Line of water outlet channel

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Fig. 12
Stone built culvert on western side of structure

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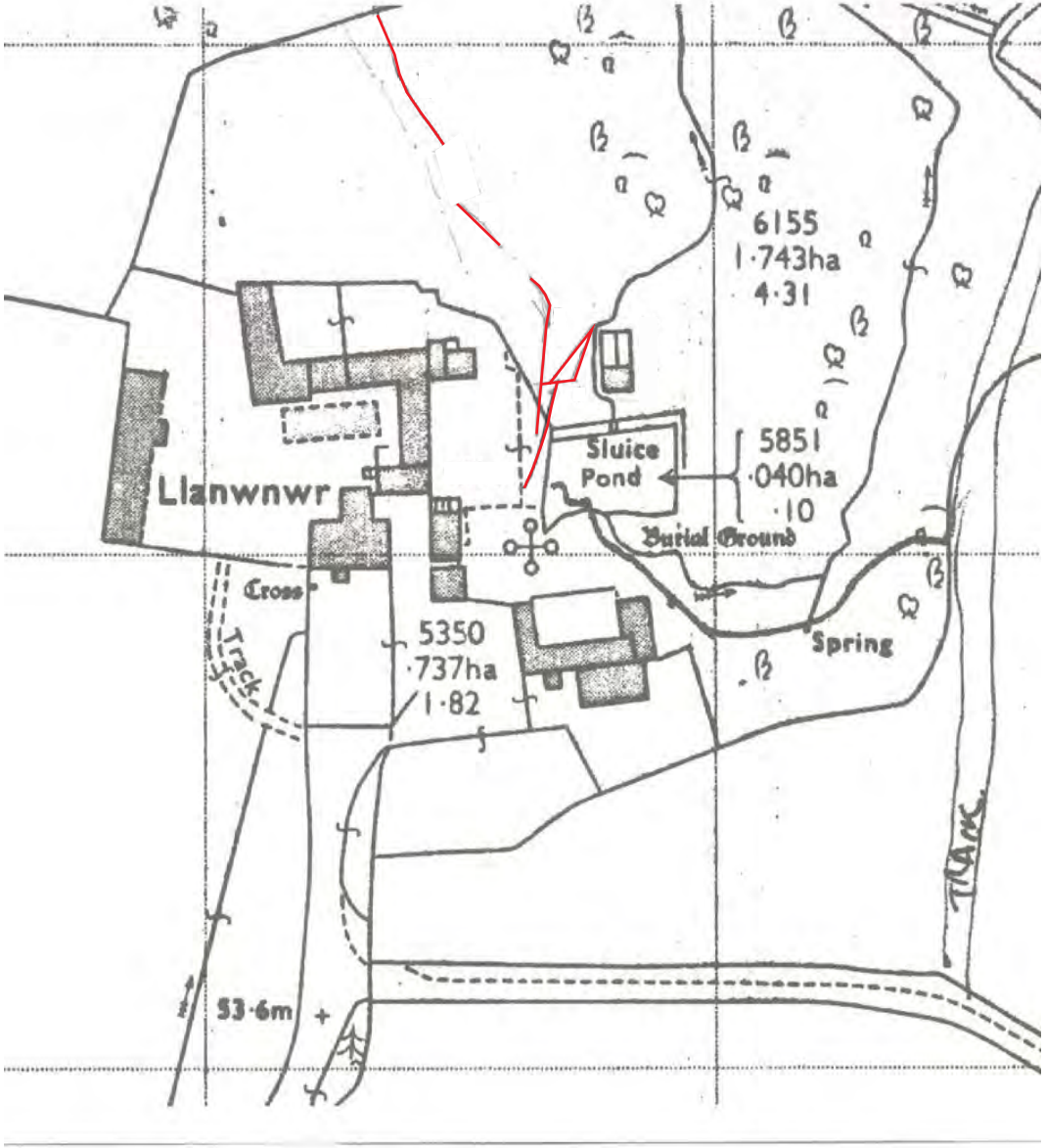

Fig. 12
Location of service trenches around the structure

Fig. 14
Service trenches around the structure

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