HAFOD

An archaeological investigation of

THE LADY'S WALK S4

and

THE COLD BATH

Report no. 35903

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Commissioned by: Hafod Trust

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SUMMARY

Three trenches were excavated across the course of the Lady's Walk and seven on the site of the Cold Bath. Both features were constructed by Thomas Johnes of Hafod in the late 18th-century as part of a picturesque landscape. Evidence from the three trenches on the Lady's Walk was of a similar nature, demonstrating simple construction using local materials, but a quite formal design with a walk 1.8m - 2m wide revetted by a dry-stone wall on its down-slope side. The site of the Cold Bath was investigated in seven trenches. The building was found to have been 4.4m wide and at least 6.2m long and constructed from local stone faced with oolitic limestone. In the early 19th-century, the building had been dismantled and its remains covered and forgotten.

SITE HISTORY

As the Cold Bath was always described by visitors to Hafod as an element of the Lady's Walk, and as the references to the walk and the path are few, the history of both sites are included in this one section.

It is assumed that the Lady's Walk was one of the first, if not the first, of the picturesque walks to have been laid out by Thomas Johnes soon after he took up residence at Hafod in 1783. Certainly, the Lady's Walk and Cold Bath were established when George Cumberland visited in 1794 or 95:

> The first ramble I should chuse for a stranger would be, to take him down, through the lawn before the house, at once to the river Ystwyth; where, instead of passing over the long Alpine Bridge, one turns short to the left into a path that skirts the water, and beneath which it runs rapidly over its pebbly bed, overhung with straggling boughs.
>
> Thence you soon descend to the level of the mead, through which it flows; where, after passing the cold bath, that is fed by a constant spring of the purest water.

The map that accompanies Cumberland's description (Illus. 1) shows the line of the walk alongside the Ystwyth with the Cold Bath as a rectangular building abutting the northern edge of a path the descends from a carriage drive down to the Lady's Walk.

Other late 18th-century and early 19th-century diary or journal entries tended to be somewhat formulaic:

> William Williams in 1796 (Hallett and Kerkham 1997): We then pursued a path on the other side of the river and after passing the cold bath were conducted to the flower garden.
>
> George Lipscomb (1799, 131-32): Pursuing a path on the north side of the river ... Here is a small stone building, used as a cold bath, perfectly plain and unadorned.

> Rev. James Plumptre in 1799 (Hallett 1997): We kept the walk by the side of the river, first the cold bath, and then the flower garden, ...
>
> Benjamin Heath Malkin (1804, 349): The cold-bath is the only object, to detain the attention, in the sequestered path from the lower flower garden to the lawn.
>
> James Edward Smith (1810, 11-12): We proceed up the river along the path shown in Plate II, and soon come to a cold bath, with a dressing room and alcove, beautifully adorned with climbing shrubs.
>
> Rev. Henry Thomas Payne in 1814-15 (Macve 1993): The walk bears afterwards on the left hand bank of the Ystwyth - the first part is pretty but has no peculiarly interesting features - the river very tame.
>
> Thomas Rees (1815): The direct path towards the house from this delightful retreat (the flower garden) continues some way down the river, until it reaches the lawn.

In addition to the written descriptions and the map which accompanies Cumberland's account of Hafod there are several graphic representations of the Lady's Walk and Cold Bath in a variety of media. Some of these provide a good contemporary record of the environment and general context of the walk, but are of little assistance in determining detail. Two illustrations however, both showing the Cold Bath, are of great value and are therefore discussed here. Both images appear on the Derby Hafod Service of 1788. The first is on a lozenge dish, titled 'Cold Bath Hafod' on reverse, and shows the scene apparently from the top of the path that leads down the valley side from the north-west of the Cold Bath. The landscape is heavily wooded, with the crenallated, white top of the Bath House protruding through trees in a valley bottom. The second illustration is from the central decoration of a square dish (Illus. 2), titled on the reverse 'Cold Bath Hafod', and depicts the building from the opposite bank of the Ystwyth. On this image the Cold Bath is shown as a gothic structure built in a white or grey-white material sitting on a low cream-coloured plinth. A main central doorway is flanked smaller openings. The artist has shown background vegetation through these doorways, giving the impression of an open structure rather than a closed-in building. The walls are topped by crenellations. A pitched, possibly slate roof is shown.

It is interest to note that Smith in 1810-11 is the last person to mention the Bath House. Jennie Macve suggests that Thomas Johnes had the building knocked down in the later years of his tenancy (pers. comm.) and supports this suggestion by a reference in the 1832 estate sale catalogue where the site is referred to as 'the cold bath pond.'.

Cartographic evidence supports the suggestion that the building had been dismantled, perhaps between Smith's visit in 1810-11 and 1814-15 when Payne and Rees described the walk but singularly failed to note the Bath House, as it is not shown on a single map, apart from the one accompanying Cumberland's account of 1796. Maps searched for evidence of the Bath House include: Ordnance Surveyors's Drawings (1820-21),

Ordnance Survey Index to Tithe Survey (1834), Map of Hafod Estate (1834), Tithe Map of Llanfihangel y Creiddyn Parish (1847), Ordnance Survey 1:2500 1st Ed. (1888), Ordnance Survey 1:2500 2nd Ed. (1905), and the Ordnance Survey 1:10,560 Provisional Ed. (1964).

The most useful of these maps is the OS 1:2500 1st Ed of 1888 as it shows that the system of walks established by Thomas Johnes was then still very much extant (Fig. 1). The Lady's Walk ran alongside the Ystwyth from the Alpine Bridge towards the presumed site of the Cold Bath. From here, where it met the walk/track that runs down the steep valley side from the north-west, to the east, the walk took a higher route than that of the original laid-out course. The junction of the Lady's Walk with the path/track that runs down the valley side has bearing on the location and history of the Cold Bath; its significance is discussed below. The path/track as shown on the OS 1:2500 1st Ed. undergoes a sharp change of direction near to the junction of the Lady's Walk. This change of direction is repeated on OS maps until 1964 (the 1964 1:10,560 map was revised for major changes in 1948), though aerial photographs taken in 1955 (Cambridge University Collection QI-38-42) shown the kink smoothed into a sinuous curve. The 1964 map and the 1955 aerial photographs show the Lady's Walk from the Alpine Bridge to the site of the Cold Bath as an extant element of the landscape.

On a recording made by Friends Of Hafod, John Postings, a forester who worked at Hafod in the 1950s, states that Bath stone was removed from the site of the Cold Bath to Myherin Forest in order to build or repair a bridge (Roger and Linda Hallett, pers. comm.). This account is strongly disputed by D G Jones who can remember no such remains. He states that the track immediately to the north of the Cold Bath was probably widened and straightened in 1939 when George Tarrent was extracting timber (Roger and Linda Hallett, pers. comm.). D G Jones also recalls a culvert on the north side of the carriage drive above the Cold Bath. This was a well-built, stone structure. It was fed by Creigiau Stream to the east and could be traced as far as a rock-cutting of the drive to the west. Its function is uncertain, but D G Jones suggested that it could have originally supplied the Bath House - supplementing the natural spring - and was later modified for other purposes. It is extant, but damaged.

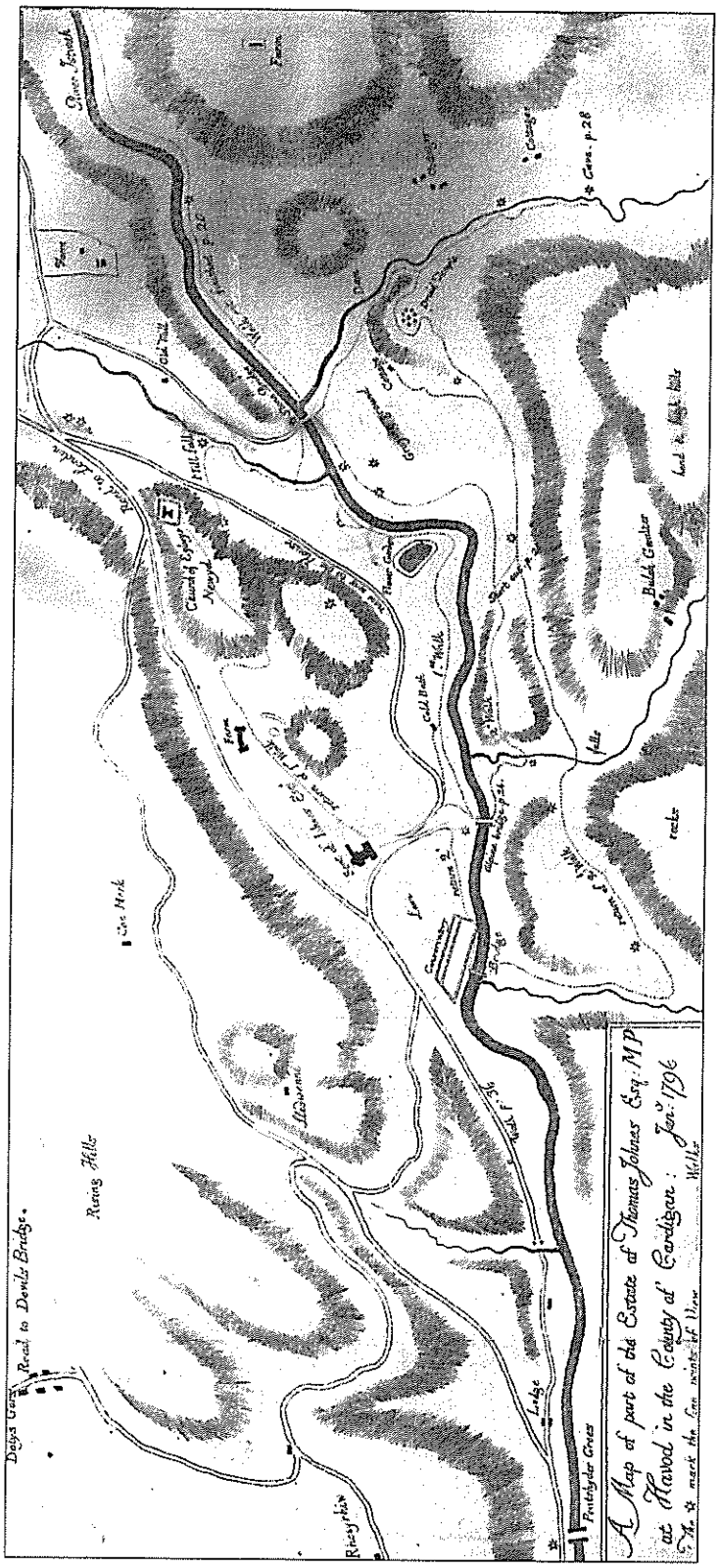


Illustration 1. Map accompanying Cumberland's 1796 'Attempt to Describe Hafod'.

Illustration 2. 'Cold Bath Hafod', on a square dish of the Hafod Service, 1788. Photograph copyright J. Watkin. Reproduced by permission of the Friends of Hafod.

TOPOGRAPHY

A full topographic survey of the Lady's Walk from the Alpine Bridge to the Ystwyth Meadow has been undertaken (Murphy and Trethowan 1997). It is recommended that the maps produced for this survey are examined in conjunction with this report; therefore only a summary of the topography is provided here. The Lady's Walk from the Alpine Bridge to the east as far as the site of the Cold Bath is clearly defined as a linear earthwork terrace on the northern bank of the Ystwyth. For the first 50m from the bridge end the path is well defined with evidence of dry-stone revetting on its outer, down-slope side, in some short sections. To the east of a massive dump of rubble which partially covers the walk, the terrace and hence the walk is in poor condition. Here there has been massive slumping and the walk is only passable with care. Trench 1 was located here. On the approach to the Cold Bath the walk is in a more stable condition, the terrace is clearly defined and there is evidence of dry-stone revetting on the down-slope side. Trench 2 was located here. The course of the original line of the Walk then becomes lost and is not located again until *c.* 50m to the east of Creigiau Stream. The character of the terrace on which the path is located is now different and has the appearance of a natural rather than a created feature. In places the terrace is up to 10m wide, though generally less. Trench 3 was located at the narrowest point of this terrace.

The Cold Bath was constructed within a south-facing open basin in which a small spring rises and flows down to the south towards the Ystwyth. Prior to excavation, several locations for the Cold Bath had been proposed. The most likely was represented by a spread of building rubble (Fig. 2) located on a slight earthwork platform. This site has been partially, but inconclusively, investigated by Phillips in 1994. The presence of an outflow of a small stone culvert (33099) to the south-west of this rubble spread strengthened the likelihood of this being the site of the bath, though given its position this culvert could drain from one of several locations. Slight indications which seemed to be of a small rectangular building on aerial photographs (Cambridge University Collection QI-38-42) indicated a second possible site. However, only photocopies of these photographs were originally available for inspection. On receipt of good prints it was clear that this putative structure lay on an impossibly steep slope. A third possible site lay where the terrace of the Lady's Walk opened out as it entered the basin across a slightly boggy area created by the spring. The map accompanying Cumberland's description (1796), however, shows the Cold Bath in none of the above locations, but on the northern edge of a path that runs down the steep valley side from the north-west. It has been assumed that this path is coterminous with the modern track, and as the valley side rises steeply from the northern side of this track it was considered that the map was incorrect as this would seem an impossible location for a building.

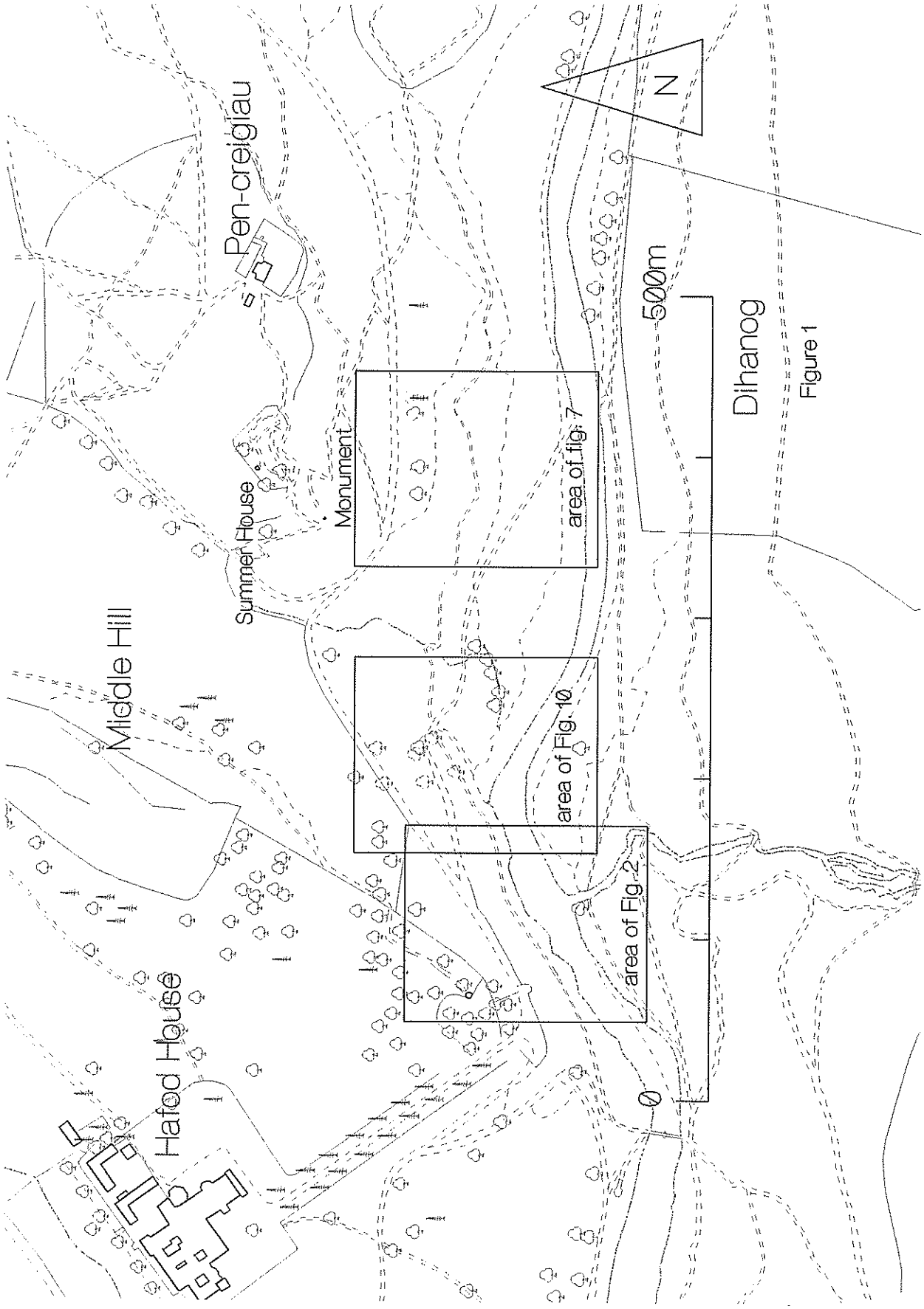


Figure 1. Location map.

THE ARCHAEOLOGICAL INVESTIGATIONS

THE LADY'S WALK S4

Trench 1

(Figs. 2, 3 and 4; Colour photos. 1-6)
This trench was located across the Lady's Walk where the terrace is in poor condition. There is no obvious evidence for a revetment wall on the outside edge of the terrace and the walk is now represented by a sloping shelf approximately 1.6m wide. Immediately to the east, the terrace has slumped dramatically over a 10-15m length resulting a barely detectable walk line. The whole area is now under a conifer plantation which led to problems in establishing an archaeological trench free of interruptions from trees of stumps. A suitable location was eventually identified and a 2m by 5.6m trench excavated.

Following the removal of a very thin (5-15cm) topsoil, vegetation mat and pine needle debris (context 1), the surface of the walk terrace was revealed. This consisted of a deposit of dark brown - black loose loamy soil containing 60-70% small- (up to 2cm) and medium-sized (2cm - 5cm), rounded, platy stones. It initially appeared that these stones formed a surface to the layer, but on excavation it was discovered that they were evenly distributed throughout it. Small sherds of a wine bottle(s) of late 19th-century date were found on the surface and incorporated in this layer.

Removal of layer 2 revealed the terrace (6) which had been cut to take the walk and layer 5, a deposit of material intended to extend the width of the terrace to the south. The subsoil (4), through which the terrace had been excavated, consisted of an orangy-brown, silty-clay-loam matix containing 60-70% gravel and small to very large (20cm x 40cm x 50cm), rounded, platy stones - a probable glacial or fluvio-glacial deposit. Silurian sandstones and mudstones (hereafter referred to as local stone) of the Devil's Bridge Formation (Davies *et al* 1997, 116-120) outcropped at the northern end of the trench. Stones in the glacial deposits seemed to be derived exclusively from this formation. Layer 5 consisted of a deposit very similar to subsoil minus the very large stones. Several very large stones were scattered in and over layer 5. The grouping of these stones and their angle of rest strongly suggests that they were derived from a collapsed revetment, a revetment that supported layer 5. A slight terrace (6) had been excavated on which to found this revetment (see section); a row of stones resting of this terrace were the slumped remains of this revetment (see Fig. 3 'Plan after removal of layers 2& 5').

The interpretation of this trench is quite straight-forward. A terrace was excavated along the valley and the spoil deposited on the down-slope side. Very large stones from the excavation were sorted and used to revet the spoil. A top dressing of small- and medium- sized stones that had been sorted or sieved from the excavated subsoil may then have been scattered over the surface of the created terrace. The walk would have originally been between 2.2 and 2.5m wide. Subsequent to construction, hill-

wash accumulated on the terrace, became mixed and trampled with upper layers of the walk and was formed into layer 2. At an unknown period the revetment wall failed; this caused slippage leading to the consequent narrowing of the walk to its present width.

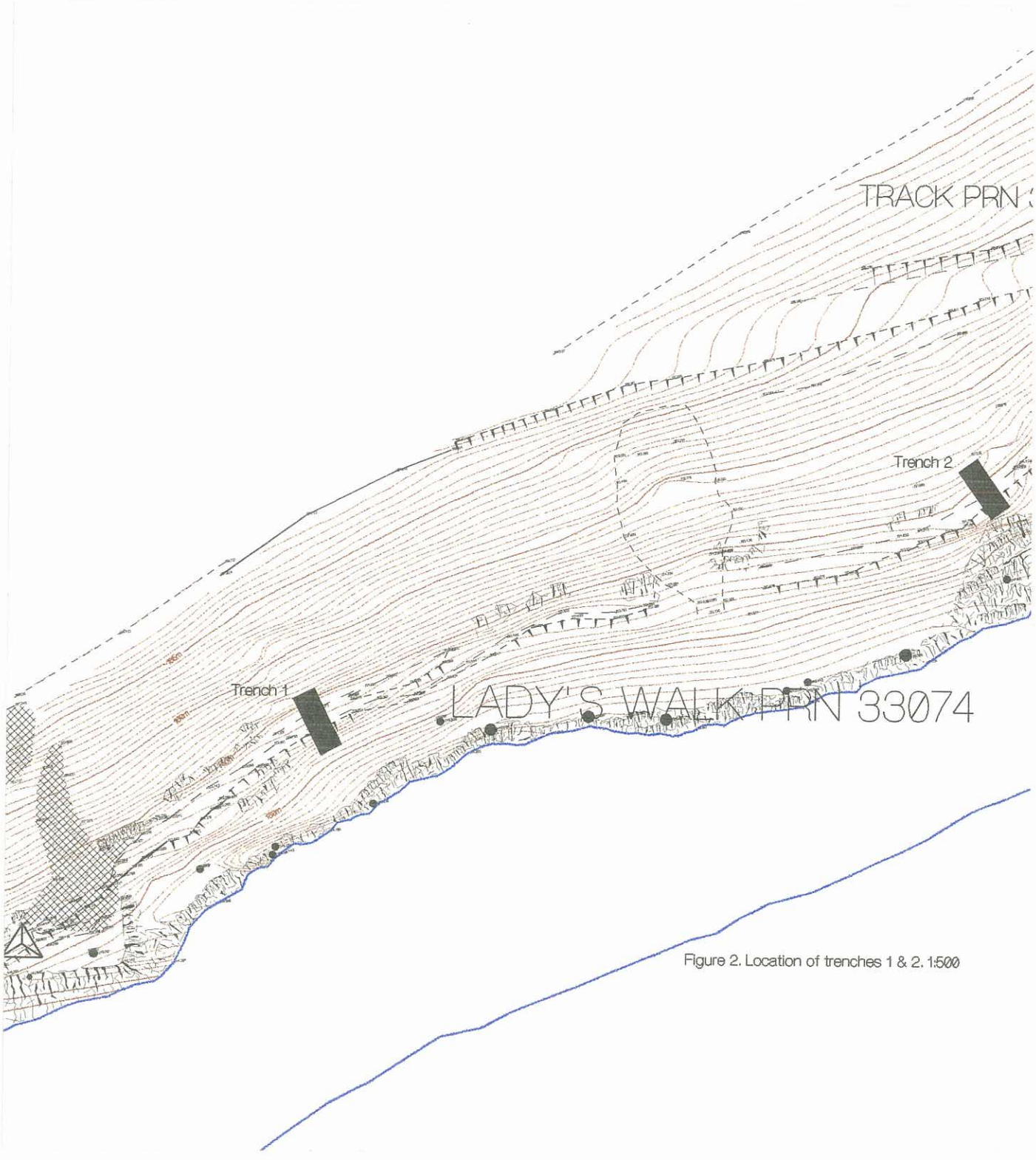


Figure 2. Location map of trenches 1 and 2.

HAFOD: LADY'S WALK S4 TRENCH 1

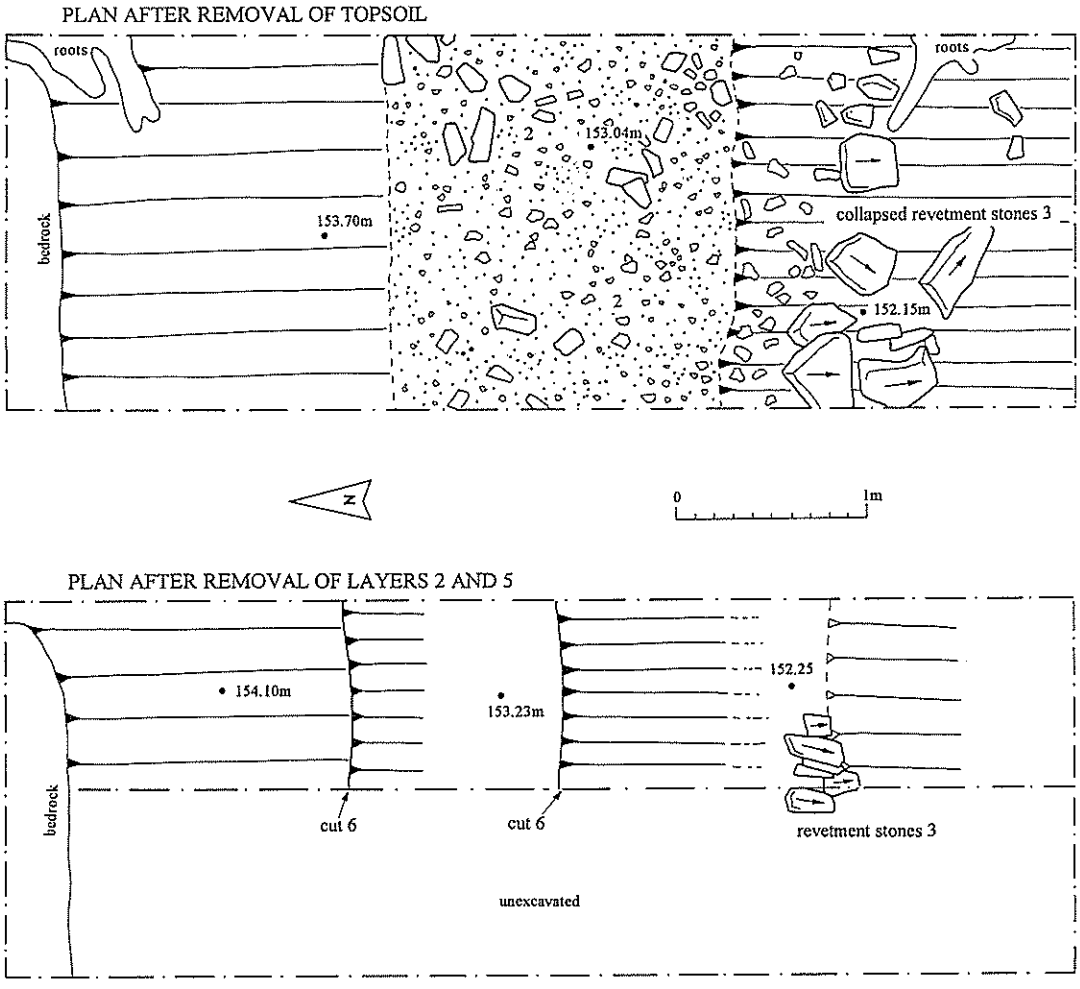


Figure 3. Trench 1, plans.

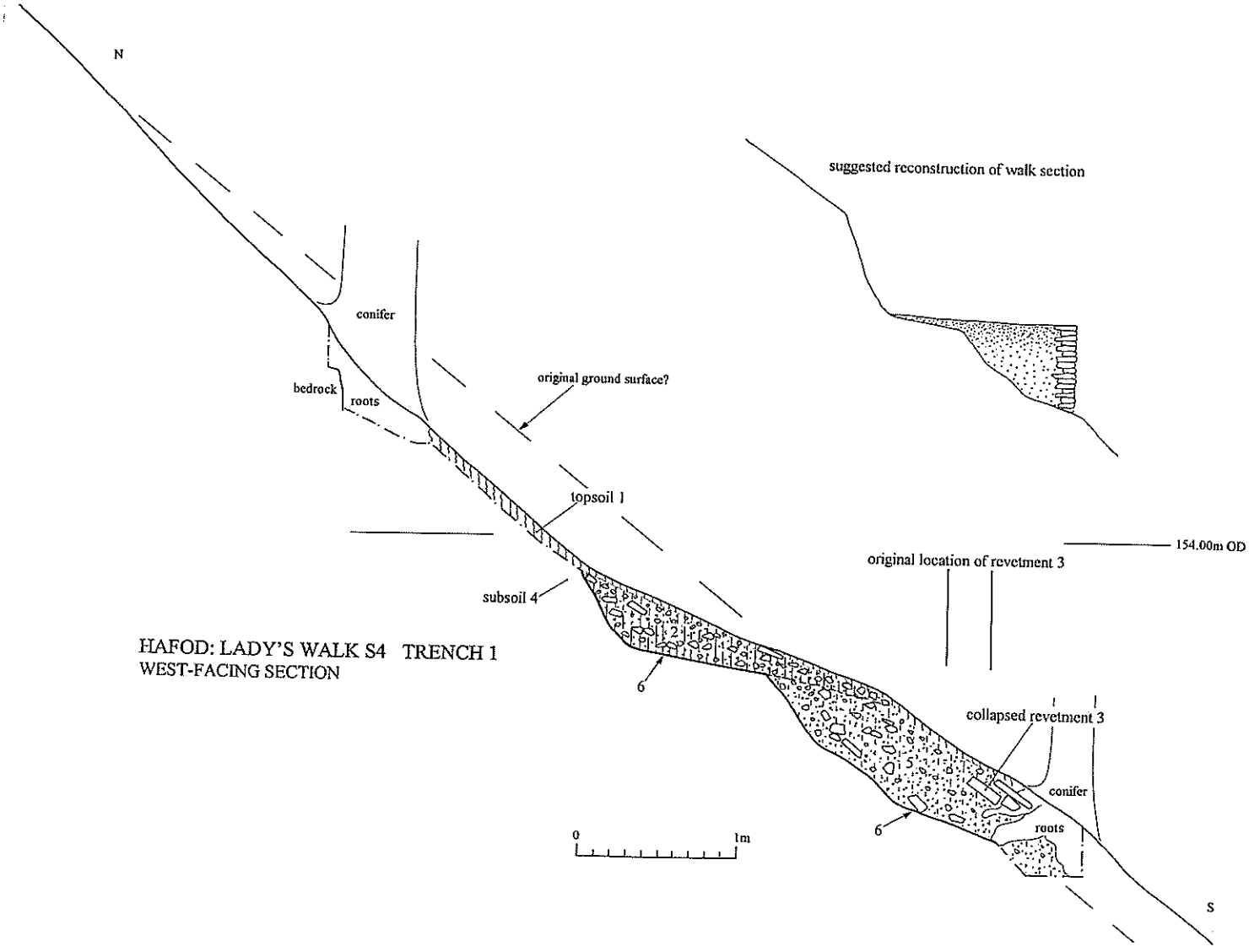


Figure 4. Trench 1, section.

Trench 2

(Figs. 2, 5 & 6; Colour photos. 7-10)
This trench was located at a point where the walk is passable with ease and where a sharp break of slope on the its outside edge indicates a possible revetment wall. To the south, the ground falls away to a cuesta above the river. As with Trench 1, the presence of the conifer plantation limited the choice of site location, but a trench 2m x 5.1m was eventually positioned between trees and stumps.

Removal of topsoil, vegetation mat and pine needle debris (7) revealed layer 8, a dark-brown - black, loose, silty-loam containing 60-70% small- and medium-sized rounded, platy, stones randomly scattered and layer 9, an orangy-brown silty-loam with 40-50% content of gravel and small- to large-sized, rounded, platy stones evenly scattered throughout. On excavation layer 8 was found to be just a 1-2cm thick and lay on a horizontally cut terrace (11). Layer 9 was similarly very thin - 3-5cm - and had been deposited on a terrace cut at slightly lower level and was revetted by the remains (two courses survived against the west-facing section) of a dry-stone wall (10). Clearly this slightly lower terrace had been excavated to accommodate this revetment wall. The subsoil (12) through which the terrace (11) had been excavated was similar to that encountered in Trench 1 except that bedrock was present just below the cut of the terrace. Original path width would have been *c.* 1.8m.

The construction technique used in this section of path is similar to that employed in Trench 1. However, the terracing into the valley side is here more substantial and the extension of the width of the walk shelf by depositing and revetting subsoil less substantial. This has resulted in a far more stable walk terrace than that revealed in Trench 1. Consequently the light engineering techniques have not failed so dramatically, although the revetment has largely disappeared, and the path retains its original width. The thin topsoil and vegetation debris and the absence of wash deposits over layer 8 indicates that the course of the walk has been kept free of accumulating material, but it is uncertain whether this was by maintenance or the result of the passage of feet.

HAFOD LADY'S WALK S4 TRENCH 2

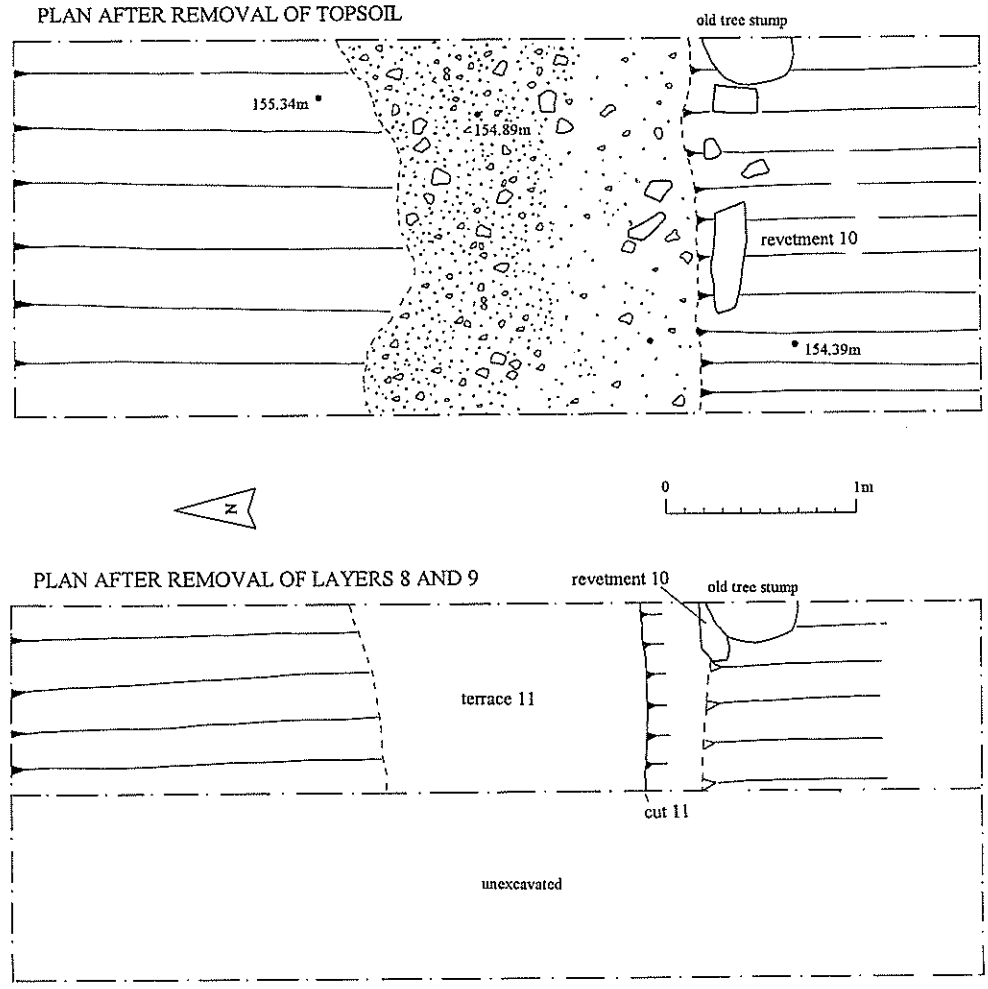
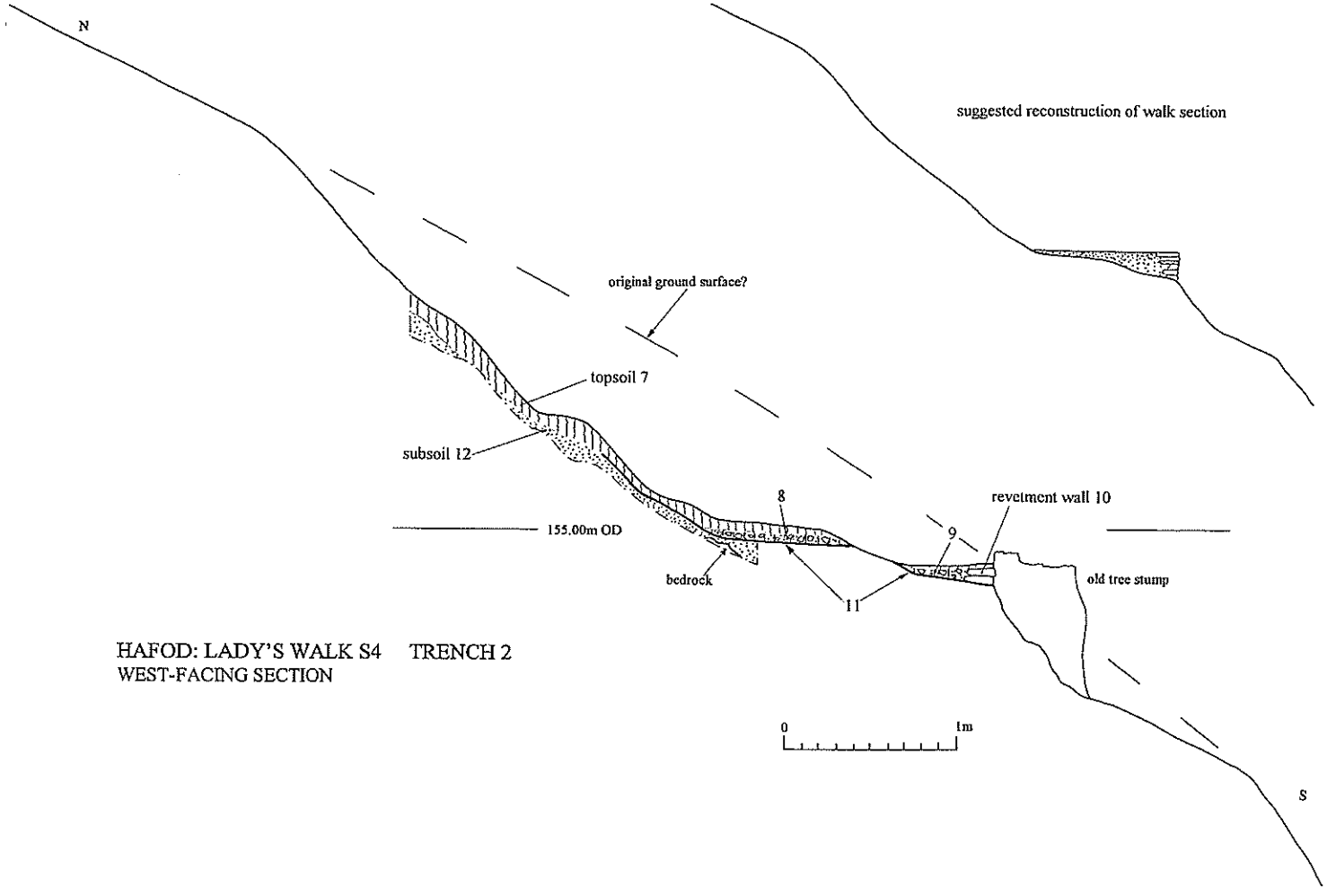


Figure 5. Trench 2, plans.



HAFOD: LADY'S WALK S4 TRENCH 2
WEST-FACING SECTION

Figure 6. Trench 2, section.

Trench 3

(Figs. 7, 8, & 9; Colour photos. 11-15)
As described above, the eastern length of the Lady's Walk in this section is of slightly different character. The terrace on which the walk is located is generally wider and there is no surface indication for a revetment on its outer, southern, side. Trench 3 measured 2m x 5.4m and was excavated across the narrowest part of the terrace.

Removal of the thin topsoil, vegetation mat and pine needle debris (13), which contained a sherd from a late 19th-century wine bottle, revealed a thin patchy layer (17) comprising a black silty-loam and containing *c.* 50% small- and medium-sized, angular, platy stones. This overlay and merged with a mid- to dark-brown silty-loam layer (15) containing *c.* 30% small- to large-sized, angular and sub-angular, platy stones. Layer 15 lay on an uneven terrace (24) cut into the valley side. Subsoil (16) through which this terrace had been excavated comprised an orangy-brown silty-loam with 50-60% small- to very large-sized, angular and sub-angular, platy, local stones. Unlike the subsoil in trenches 1 and 2, very large-sized stones were present in great numbers. Quarrying through the subsoil and removing these stones undoubtedly resulted in the uneven terrace (24) recorded in the archaeological trench. To the south of the terrace 24 lay a further smaller terrace (18). Lying on this terrace was a deposit (19) very similar in character to the subsoil minus the very large stones. The very large stones had been sorted from the subsoil and used in the construction of a revetment, located on terrace 18. Some (20) were recorded on the down-slope side the terrace mixed with a very loose deposit similar to 19, and one was still *in situ* (Fig. 8, 'Plan after removal of layers 17, 15 and 19).

Though it is clear that for much of its length in the vicinity of Trench 3 the Lady's Walk was located on a wide natural terrace, excavations revealed a considerable amount of design and effort had been required to bring this section up to the required standard. At the point of excavation no definite evidence for a natural terrace was evidenced, the section and profile of the trench indicate, however, that the walk was located on a distinct break of slope. The construction techniques employed were similar to those recorded in trenches 1 and 2: a terrace cut into the valley side with the materials from this excavation used to extend and revet the width of the terrace. Because of the uneven nature of the cut terrace a 'top dressing' layer would have been laid down to create a level surface. It is likely that layer 15 was in part derived from such a 'top dressing', but the mixed nature of this deposit and its angle of rest (Fig. 9) indicates that it also owes its existence to the accumulation of hill-wash on the terrace. Layer 17 is of interest. On exposure it appeared to be the remains of a good walk surface, and would have been taken as such without further excavation. However, on excavation, it was found to be quite insubstantial and late in the archaeological sequence; it probably owes existence to the compacting of hill-wash by the passage of feet.

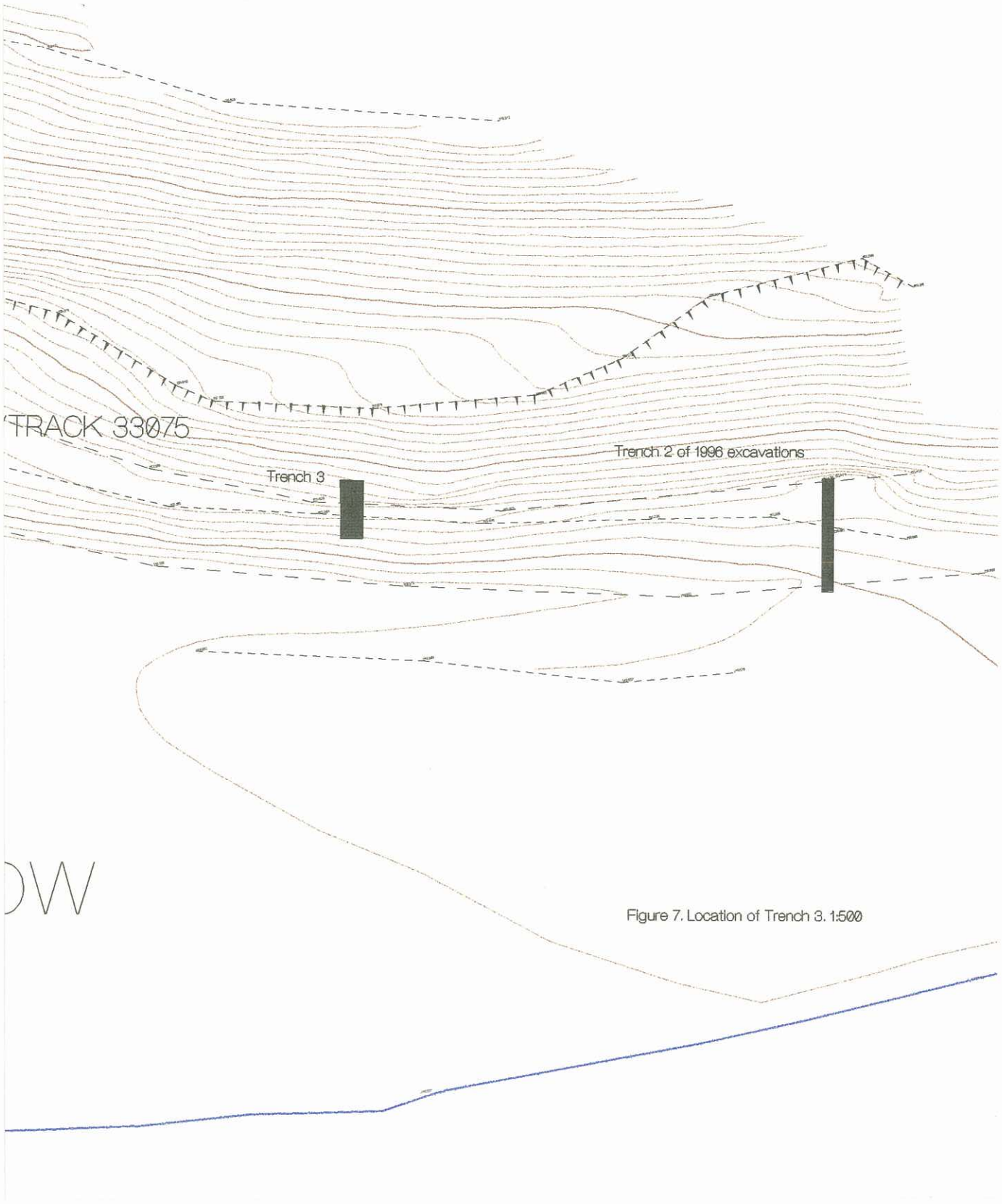


Figure 7. Location of Trench 3.

HAFOD: LADY'S WALK S4 TRENCH 3

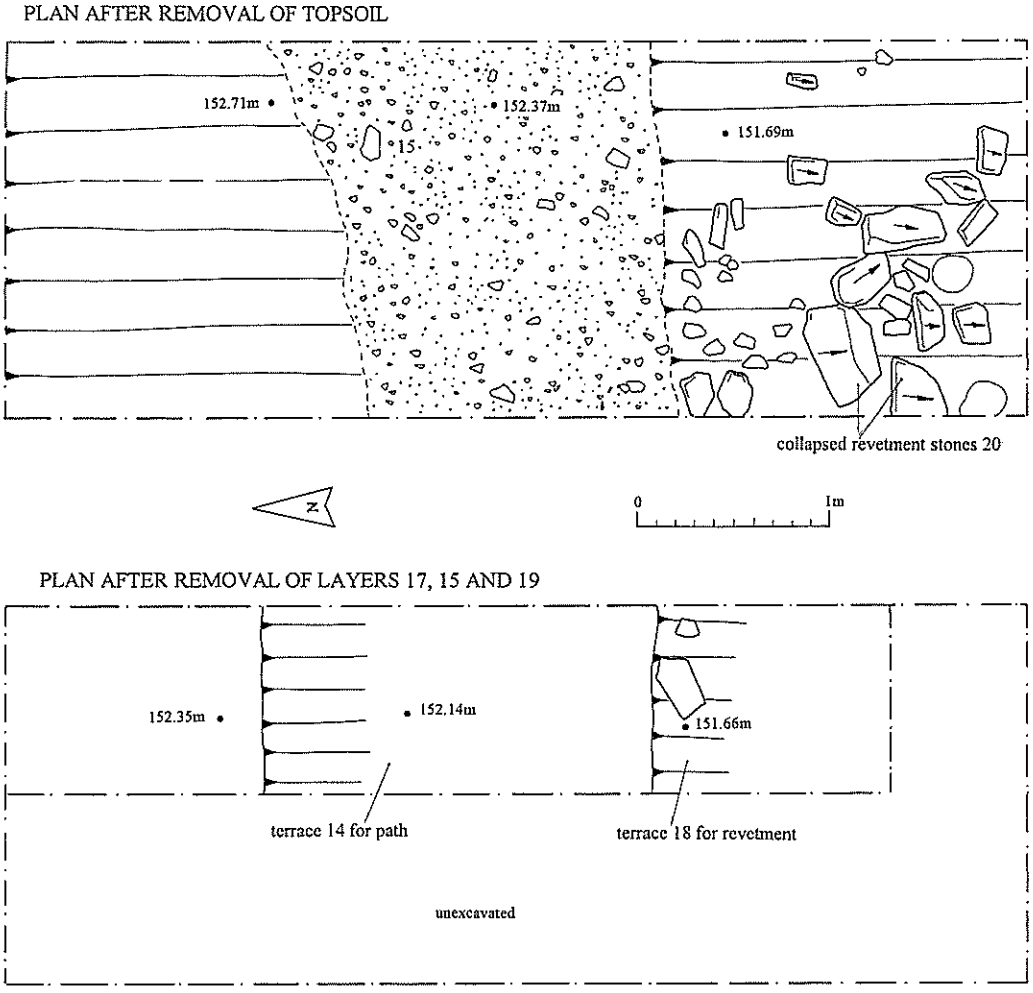
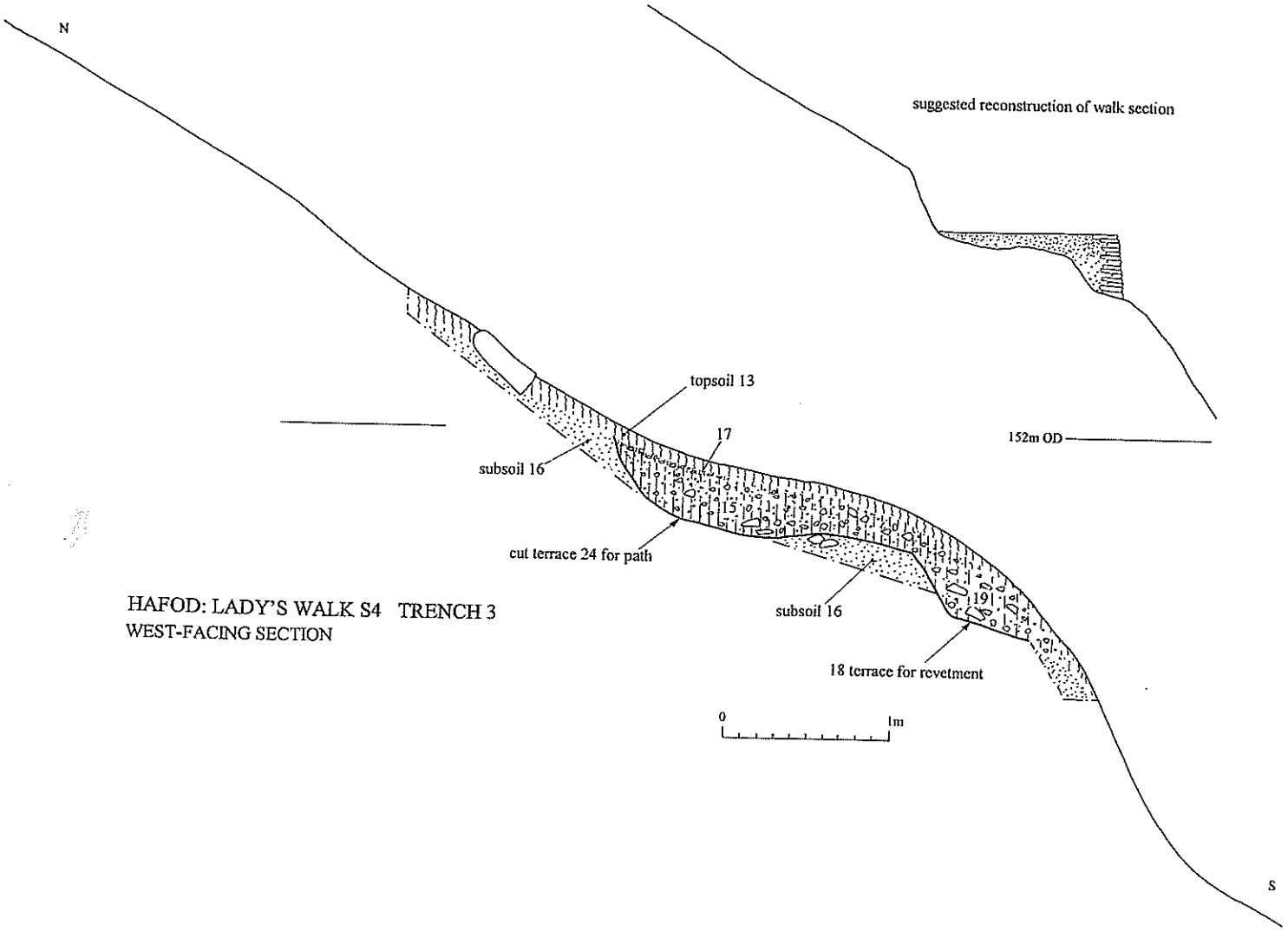


Figure 8. Trench 3, plans.



HAFOD: LADY'S WALK S4 TRENCH 3
WEST-FACING SECTION

Figure 9. Trench 3, section.

THE COLD BATH

Trench 4

(Figs. 10 & 11; Colour photos. 16-17)
This is a reinvestigation of a trench excavated by Phillips in 1994 (p20, Trench X). The results recorded by Phillips and those of the present excavations are not easy to reconcile. Phillips noted several north to south aligned anomalies running across his trench which he considered might be archaeological, though they were no excavated. It seems likely that these were the surfaces of bands with in the gravel subsoil. No archaeology was recognised in 1998 apart from the rubble layer described below.

Trench 4 measured 4m x 1m and was aligned with its long axis west to east across an obvious rubble deposit. This rubble deposit is very extensive - its approximate bounds are shown on Figure 10 - and consists of local stone, fragments of oolitic limestone (Bath stone), brick, roofing slate, iron fittings, and pottery sherds. The latter of late 19th-century or 20th century date. Linda Hallett also presented the author with further finds made in the 1980s including a fragment of carved marble. Phillips 1994 trench was cleaned out, excavated down to subsoil and a section recorded. A dark greyish-brown, silty-loam topsoil with a maximum thickness of 25cm overlay and was partly mixed with a rubble layer (22). The rubble consisted of: medium- to large-sized, local, angular stones, fragments of dressed oolitic-limestone, purple- and grey-coloured roofing slate, red and white brick and grey-white lime mortar, and lay directly over subsoil. Subsoil consisted of banded fluvio-glacial sands and gravels, with component size ranging from coarse sand through to cobbles (rounded stones up to 20cm).

Trench 10

(Fig. 10)
Subsequent to the excavation of Trench 4, clear water was noted bubbling to the surface between the rubble spread and the culvert out-fall It was considered that this may be the result of a blocked culvert in this area. Trench 10 was excavated to investigate this possibility. Nothing archaeological was discovered. The water was rising up through natural gravels.

Trench 5

(Figs. 10 & 11, Colour photo. 18))
Following the excavation of trenches 4 and 10, the vicinity of rubble spread still seemed the most likely location for the Cold Bath and therefore Trench 5 was opened-up. As well as further examination of the rubble this trench was designed to cut across the line of the culvert on the assumption that it lay directly up-slope (north) of its out-fall. The trench was 8m x 1m and lay east to west across the platform on which the rubble lay down to the stream that flowed from the spring.

Topsoil (24) was similar to that encountered in Trench 4 and at the east end of the trench overlay rubble (25). This rubble was identical in character to that uncovered in Trench 4 (22). Finds in layer 25 comprised pottery and window-glass of late 19th-

century or 20th century date. At the central and eastern sections of the trench rubble or topsoil overlay banded fluvio-glacial sands and gravels. These ranged in size from coarse sands to cobbles. The culvert (26) was cut through these sands and gravels. This feature was not fully excavated, but sufficient work was carried out to establish its character. Gravels and cobbles, which resembled subsoil, had been packed over the stone slabs capping the culvert. Two of these slabs were lifted to reveal the channel of the culvert. This was choked with silts, but some water continued to flow in it. The slabs were then carefully replaced.

Trench 6

(Figs. 2, 12 & 13; Colour photos. 23-29)
Trench 6 was located across the upslope (north) projected line of the culvert. Originally 8m x 1m, it was later extended to 15m in length. It was aligned east to west. The western end of the trench lay to the west of the spring across ground that gently sloped from north to south. At the eastern end the ground surface rose sharply up to the level of a track that lies to the north and east of the trench. To the south of the east end of the trench the ground fell away sharply by approximately 1m. Prior to the trench's excavation, it was considered that this sudden change in ground level was an artificial feature created as part of a terrace for the track.

Topsoil (28) at the west end of the trench comprised a 20cm thick mid-brown to grey-brown, silty-clay-loam with few inclusions. This soil became increasingly stony towards the west and very mixed, containing rotting conifer branches and other modern debris. Towards the west end of the trench below topsoil and resting on subsoil was a layer (29) of very small (less than 1cm) and small (up to 2cm), angular, local stones with occasional small pieces of quartz. This layer was 1.6m by 0.70m and just 1-2cm thick.

Three drainage gullies (35, 37 & 39) ran at right angles across the centre of the trench. The height from which they were cut and the deposits through which they were cut (see below) indicate that they are of relatively recent origin and post-date the disuse of the Cold Bath. Their function was to drain water down-slope away from the spring. Drain 35 contained conifer branches is therefore of modern date. Drain 39 cut 37. Both had similar fills: a dark-brown silty-clay-loam containing small- to large-sized angular, platy, local stones and fragments of undressed oolitic limestone. The top of a foundation trench was cut by drain 39 and possibly by 37. This foundation trench was not excavated, but fragments of undressed oolitic limestone were noted on the surface. It is not known whether the culvert excavated in Trench 5 lay beneath drainage gullies 37 and 39 as it was not possible to continue excavating due to the extremely wet conditions.

The eastern side of drainage gully 39 cut through a massive dump of gravel, sand and stones (31, 32, 43 & 44). Layer 31, the upper part of this deposit comprised a dark brown silty-loam with c. 50% small- to medium-sized, rounded, platy stones and occasional sherds of pottery and wine-bottle glass dating to the late 19th-century or 20th century. Small- to medium-sized, rounded, platy stones made up 90% of layer 32. The remaining 10% consisted of a dark brown silty-loam. Layer 43 was essentially the

same as 32, except it was of a cleaner appearance. 43 overlay a layer of pure mid-brown, fine sand (44). Directly below layers 43 and 44 lay the remains of the Bath House.

Wall 41, the east wall of the Bath House, comprised local stone bonded with a grey-white lime mortar. On the inner face a course of dressed oolitic limestone blocks was present. The wall was 0.50m wide. Bonded onto this wall was what a first was considered to be a just a sub-floor (42), but further, limited investigations revealed a wall-face to this descending on its northern edge. The ragged nature of this wall-face indicates that its facing stones have been robbed out. The sub-floor and wall-face was constructed from local stone bonded with grey-white mortar over which a skim of cream-coloured lime mortar had been laid. Sub-floor/wall 42 was bonded on its east side into wall 49, the east wall of the Bath House.

Wall 49 was of similar construction and dimension to wall 41. A single, dressed, oolitic-limestone block was present on the wall's inner face. A step on the wall to the north of this block indicates that further oolitic blocks have been removed. A mortise cut into the west-centre of this oolitic block suggests that a course of dressed stone lay at right angles to wall 49 along the northern edge of the sub-floor/wall 42. Deeper, but limited, excavation against wall demonstrated that the gravel and sand layers 32, 43 and 44 continued down, and that facing stones of wall 49 have been robbed out. The core of wall 49 at this lower level was seen to consist of undressed oolitic limestone rubble.

Outside the building, to the east, the surface (51) of what appeared to be a foundation trench or the ground surface contemporaneous with the Bath House was revealed beneath the gravel/sand deposits (32, 43 & 44), but not excavated. This consisted of a loose, dark-brown, silty-loam which contained small- to large-sized, local stones, pieces of undressed oolitic limestone and grey-white mortar fragments.

Trench 8

(Figs. 2, 12 & 13; Colour photo. 31)

This trench, 1.7m x 1m, was excavated on the down-slope, south, side of Trench 6 on the projected line of wall 49. A very thin deposit of rotting vegetation, root mat and pine needles containing sherds of late 19th-century and 20th century pottery and wine-bottle glass and overlay building debris (46). This layer was up to 30cm thick and had been penetrated by large roots from a conifer immediately to the west of the trench. The layer consisted of small- to medium-sized, angular, platy, local stones, fragments of oolitic limestone, pieces of grey-white mortar and some white-painted plaster. Beneath layer 46 lay wall 47 and sub-floor 48. Wall 47 was clearly a continuation of wall 49 uncovered in Trench 6. It was 53cm wide. A single block of dressed oolitic limestone lay on the inner wall-face - others to the south had clearly been robbed. The core of the wall was constructed from coursed local stone bonded with a grey-white lime mortar. The oolitic limestone had been bonded with cream-coloured mortar. The wall survived to one course above the sub-floor (48). This sub-floor was at the same level as that found in Trench 6 (42) and was of similar character; a cream-coloured lime mortar. A single piece of oolitic limestone resting on this sub-floor may have been

an *in-situ* floor tile. Ridges on the sub-floor may mark internal divisions, but are perhaps more likely to be scars from where further floor tiles have been removed. Roots from the conifer had not penetrated the sub-floor.

Trench 9

(Figs. 2, 12 & 13; Colour photos. 32-39)
Originally intended to locate the position of the line of wall 41 discovered in Trench 6, this trench was extended to examine the south-west corner of the building. Vegetation and rubble deposits identical the those discovered in Trench 8 (46) overlay the remains of the Cold Bath. Root penetration from the large conifer located between trenches 8 and 9 of these upper deposits hindered the examination of the structural remains. The west wall (55) of the building was 65cm wide and was constructed from local stone bonded with a grey-white mortar. A large, upright ashlar block of oolitic limestone was bonded into the outer face of this core material towards the south-west corner of the building. Robbing of further facing stones seemed to have occurred on the outer wall-face, but this was not examined in detail. Wall 55 is not on a direct projected line from wall 41 in Trench 6, but off-set 50 cm to the west. A raised plinth of stone bonded with grey-white lime mortar and incorporated into the sub-floor 56 maintains the line of wall 41 in Trench 6. Apart from this element, the sub-floor was similar to that discovered in Trench 8. The south wall of the building was defined by a step down from the sub-floor. An *in-situ* and unworn, dressed oolitic limestone step was bedded into the west end of a shelf 1.0m long. The surface of the *in-situ* step was 25cm below the sub-floor surface and 18cm above the shelf's surface. The nature and character of the south wall of the building to the east of this step became difficult to determine due to tree roots, though the it was noted that red brick had been included in its core construction.. A grey-brown, silty-loam soil lay beneath the rubble on the external south side of the building. This soil had accumulated against the base of the *in-situ* step and over a fluvio-glacial gravel subsoil. The Bath House seemed to be built directly onto this gravel subsoil.

Clearance of vegetation from the south side of trenches 8 and 9 emphasised a break of slope *c.* 3m to the south of the south wall of the building. This clearly marked the outer, southern, edge of the Lady's Walk.

Trench 7

(Fig. 12; Colour photo. 30)
This was excavated immediately alongside the southern edge of the modern track. The upper deposits (20-30cm thick) comprised loose topsoil mixed with conifer branches and track hard-core. The whole was very wet due to the proximity of the spring. Immediately below these deposits lay an roughly east-west aligned line of large and very large, local stone-slabs (34). These were bedded into a compact, grey clay. The surface of the stones lay c. 1.50m above the level of the sub-floor within the Bath House. Because water was running across the surface of this trench, it was not possible to continue further investigation. The line of stones can be interpreted as the base of a culvert that fed water from the spring that rises to the north-west into the Bath House.

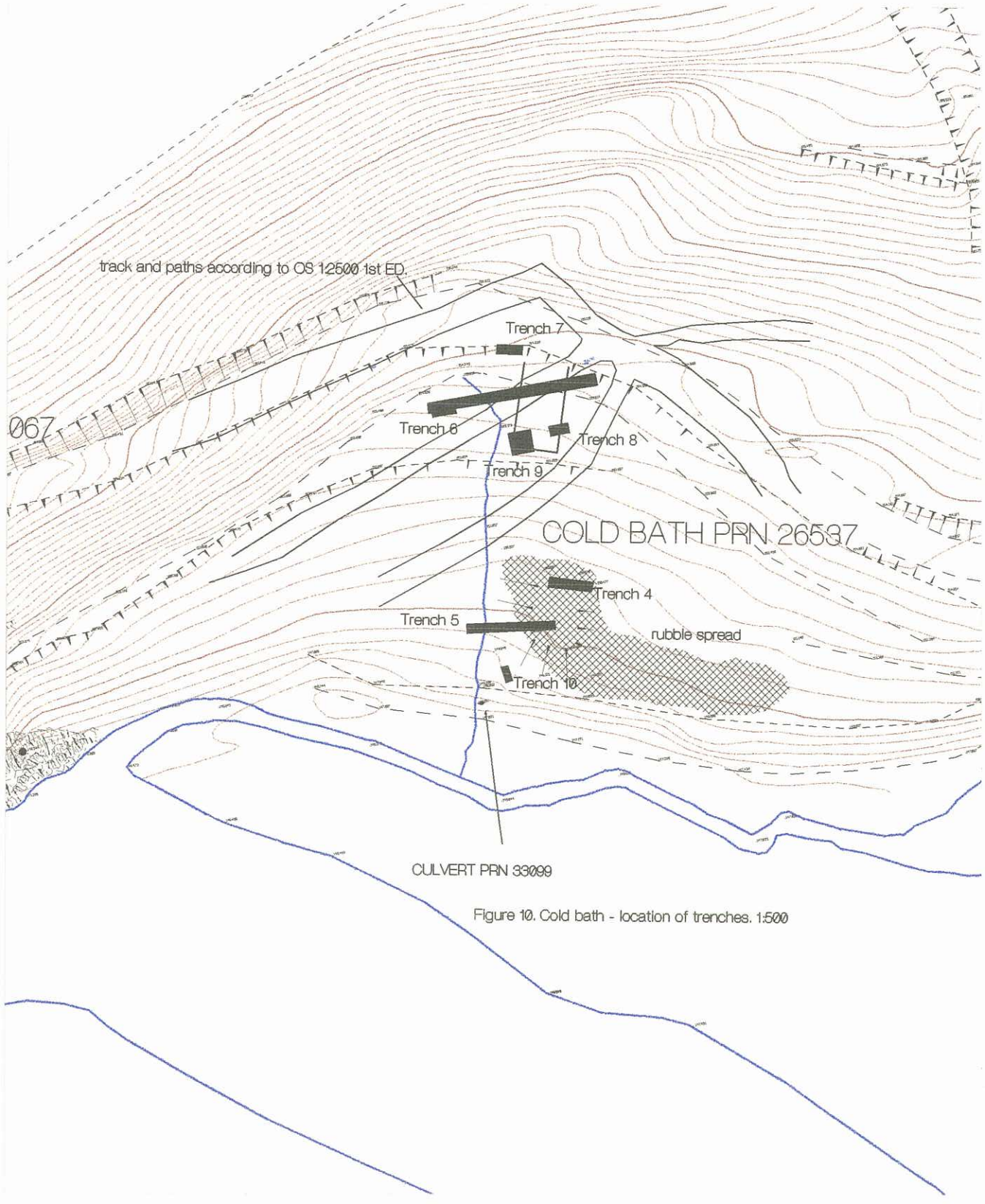


Figure 10. Location of trenches 6-10.

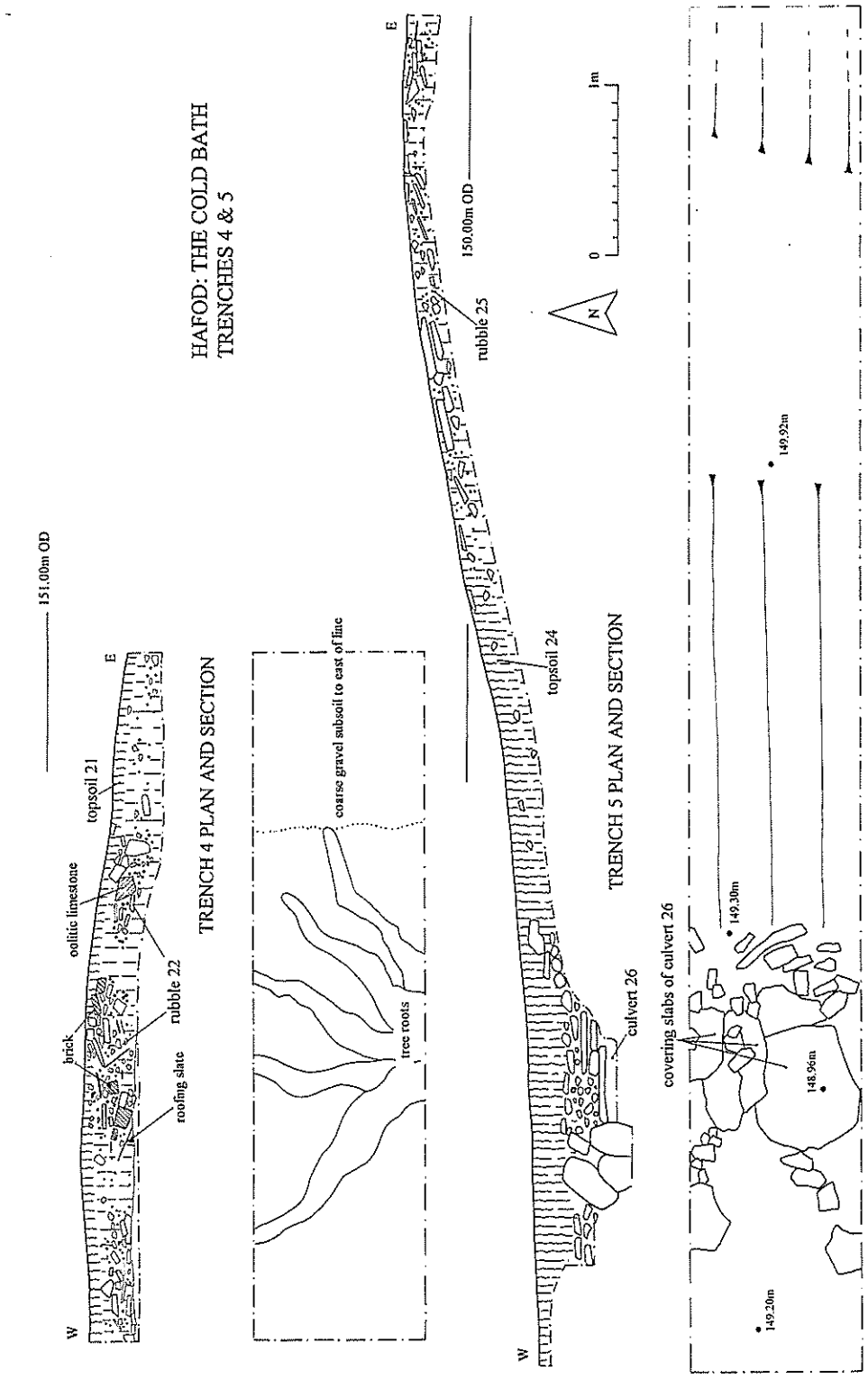


Figure 11. Trenches 4 and 5, plans and sections.

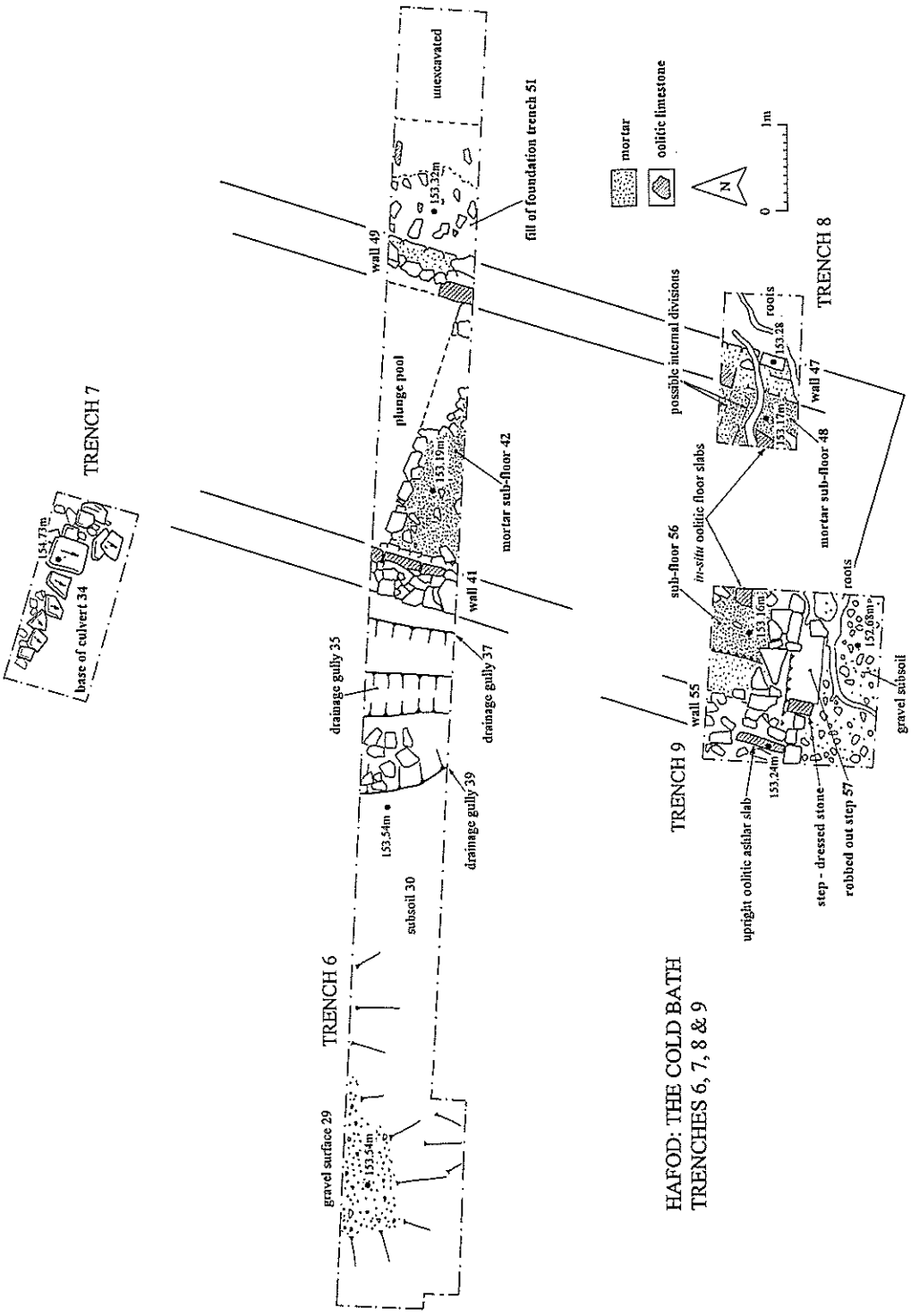


Figure 12. Trenches 6, 7, 8 and 9, plans.

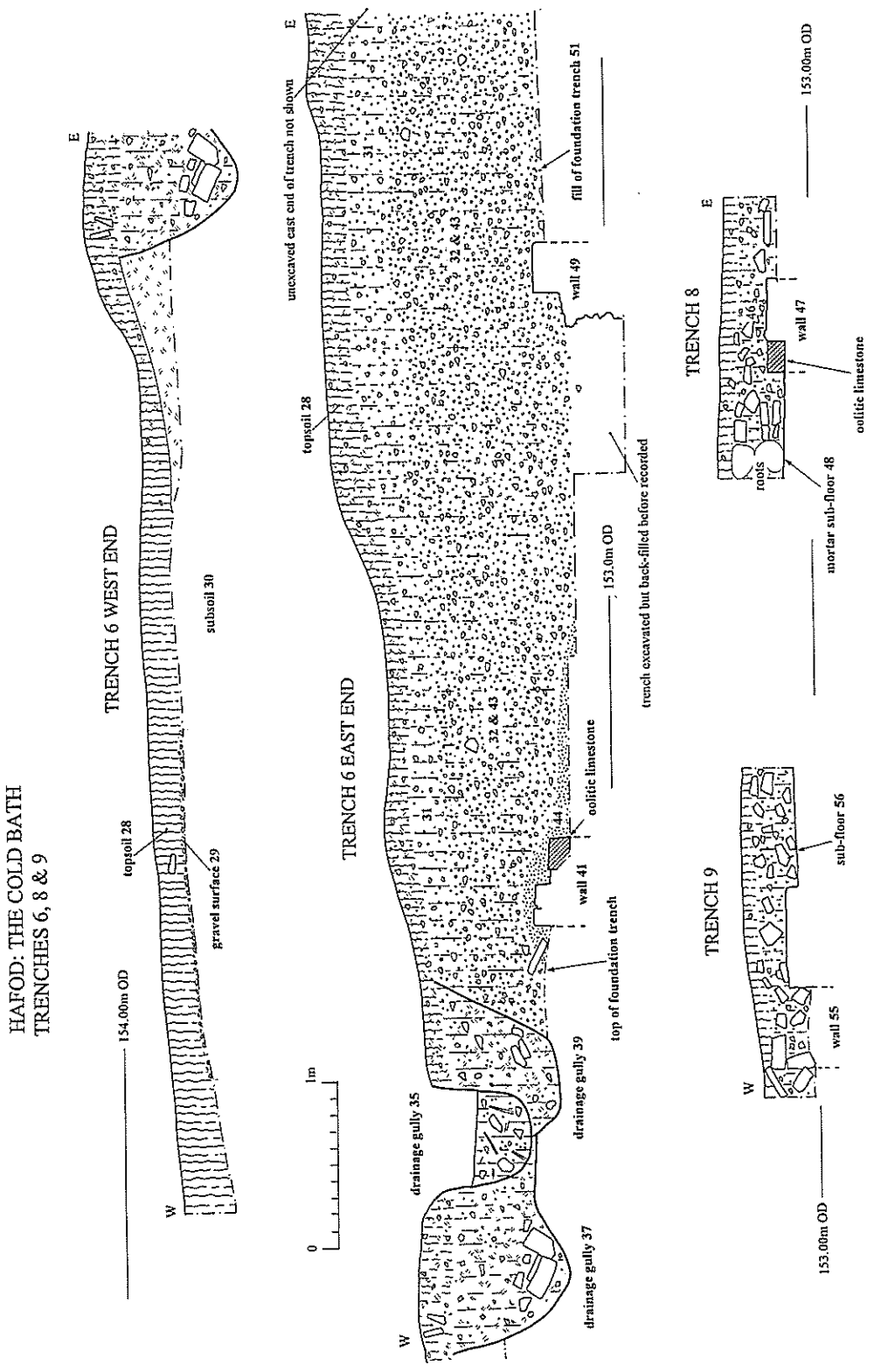


Figure 13. Trenches 6, 8 and 9, sections.

Interpretation

Excavation of Trenches 6, 8 and 9 exposed part of the remains of the Cold Bath. This was a rectangular building, aligned approximately north-south on its long axis, 4m to 4.4m wide externally and at least 6.2m long. It was built across a slope, with the northern end cut into the hillside and the southern end resting on the gravel subsoil surface.

The building consisted of two internal elements: at the southern end a room 3m wide and 4.8m long internally, at the northern end a filled in plunge pool 3m wide and of unknown length. Though mostly robbed of its good quality stone, it would seem that the floor of the room, the sides of the plunge pool and at least the lower levels of the internal walls were faced with dressed oolitic limestone. One doorway was revealed in the excavations. This lay hard by the south-west corner of the building in the south wall and was entered by a single step up from the outside.

At least the lower courses of the southern end of the building were faced with oolitic limestone, evidenced by wall 55 in Trench 9. The archaeological evidence offers little to indicate how the remainder of the wall faces were finished. White painted plaster from layer 46 may be from a ceiling, an internal wall finish or external wall face.

The plunge pool was supplied by a spring, the water of which seems to have been channelled into the building via a culvert, the remains of which were discovered in Trench 7. This base of this culvert lay approximately 1.5m above the sub-floor of the Bath House and by inference above the surface of the plunge pool. This head of water would have allowed for a fountain. The outflow from the pool and its connection with the culvert in Trench 5 was not established.

Careful dismantling of the building seems to have taken place. This involved the removal of all the easily extractable dressed oolitic-limestone from the building and the reducing of all walls down to one- or two-courses above foundation level. The waste from this process was spread on the slope to the south of the building; this was examined in trenches 4 and 5. The absence of building debris in Trench 6 over the reduced side walls and edge of the plunge pool is perhaps and indication that the pool remained open following the dismantling of the building, and was filled in at a later date with gravel and sand. Stone, mortar and other demolition material lying directly over the lowered southern end of the Cold Bath (trenches 8 and 9) suggests that this part of the building went out of use with at the time of dismantling and was covered over. The general spread of late 19th-century and 20th-century pottery mixed with the rubble in trenches 4 and 5 and in the upper levels of trenches 6 and 8 may be an indication that the area was used as a rubbish dump at this time. If this is so, then building material from other sources may also have been dumped here.

Bearing in mind the caveat mentioned above, the spread of rubble to the south of trenches 6-9, and examined in trenches 4 and 5, consists of material similar to incorporated in the Cold Bath it is likely to have been derived from the demolition of the building. The quantity of brick and local-stone rubble indicates that these were a

major component in the building's superstructure. Slates reveal the nature of the roofing material. The fragment of carved marble may be from a fountain.

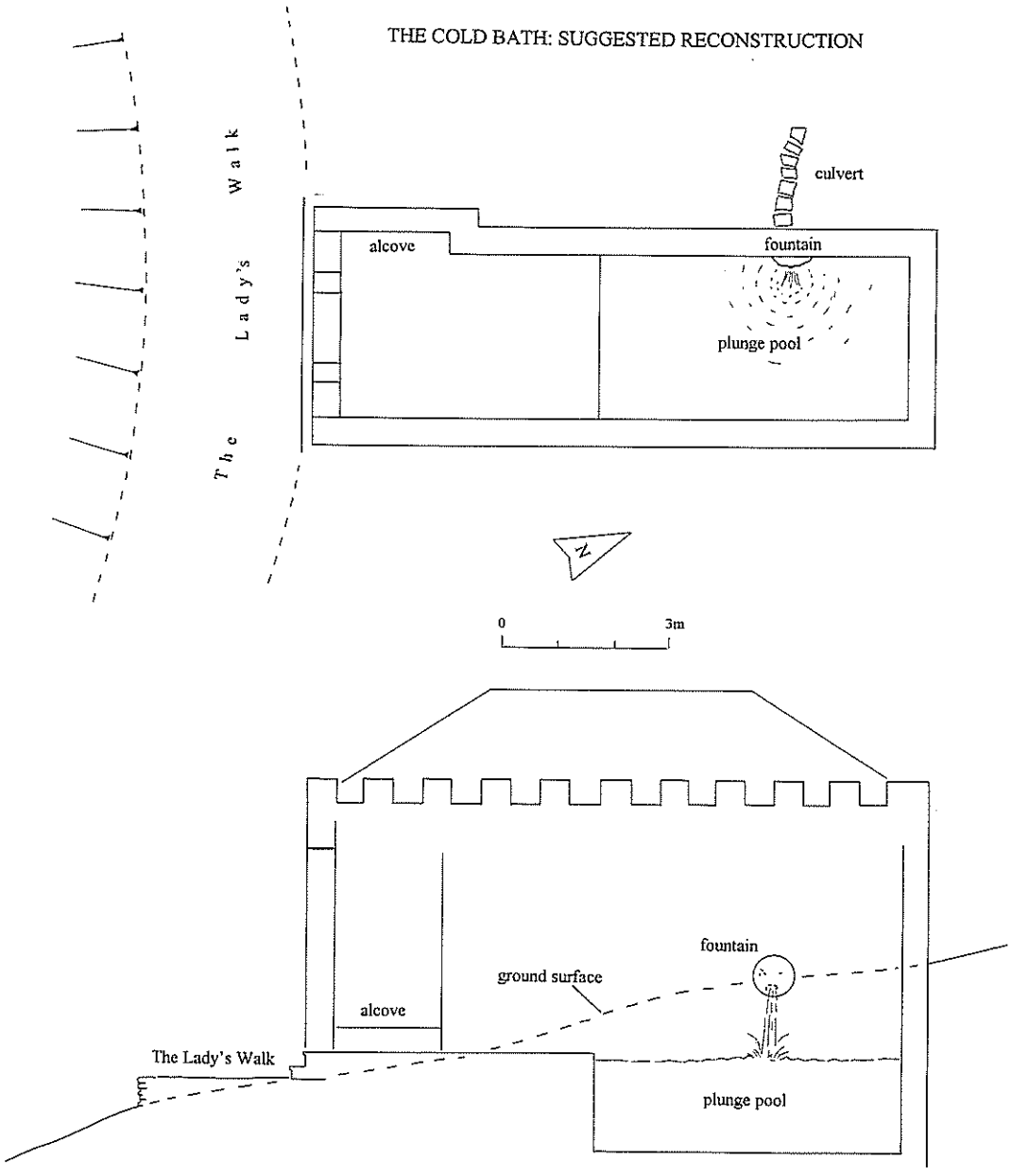


Figure 14. Suggested reconstruction of the Cold Bath.

DISCUSSION

Of the two sites, the Lady's Walk and the Cold Bath, the Lady's Walk has the least information to discuss and is therefore dealt with first. There are three important points highlighted by the excavations. The first is the unexpected formality of the walk. The width was between 1.8m and 2.5m (6ft - 8ft 2ins) and was bounded on the down-slope side by a revetment wall which may have been up to 1.5m high in certain sections. An examination of the topography along un-excavated lengths provides no reason to suppose that the whole length of the walk in this section was not revetted in stone. Second, it is clear from the excavations that all materials for the walk's construction were available on site; the subsoil contained very large stones for building a revetment and small- to large-sized, rounded stones mixed in a silty matrix for the path's make-up. And thirdly, there was no evidence for a hard gravel surface to the path. True this may have been lost with the passage of time, but the excavated evidence indicates only that small- to medium-sized stones were sorted from the larger stones and soil matrix to provide a top dressing.

Revetment walls have been identified and examined previously on the course of the Lady's Walk (*passim* Phillips 1994), and seem to have been constructed in most locations where the walk runs across a steep slope. Important for engineering purposes, the revetment walls may have had a strong secondary role in increasing the height of the walk and steepness of the natural slope, and so hightening the perception of danger for the walker.

It is interesting to compare the evidence from Trench 3 with that from the 1996 excavations. In 1996, a trench (Trench 2) was excavated across the far eastern section of the walk terrace as it descended to the Ystwyth Meadow (Murphy and Ramsey 1996, 4-5) - see Figure 7 for location. Here the terrace was of considerable width. The walk surface seemed to be of two phases and included fragments of brick and oolitic limestone and exhibited evidence of possible wheel rutting. The archaeological deposits in the 1996 trench were revealed but not excavated. It is possible that excavation in 1996 would have produced similar evidence to that discovered in 1988, though no explanation is given here for the alien material and the apparent wheel ruts.

The written, cartographic, illustrative and archaeological evidence for the Cold Bath now seems in general agreement. Cumberland's (1796) location of the structure on his accompanying map is just about correct; the Lady's Walk passed immediately to the south of the rectangular north-south aligned building. Illustration 1 shows the Cold Bath at the base of a heavily wooded slope. The building in the illustration can be related to the excavated remains, with the creamy-yellow plinth on which the building sits seems a depiction of the excavated step and doorway discovered in Trench 9. Brick and local stone discovered in the rubble spread may be an indication that the superstructure of the building was constructed in these materials and rendered; this is supported by the illustration which shows the main part of the building coloured grey-white.

Documentary sources indicating that the Bath House was dismantled, perhaps as early as 1810-1815 and reduced to a 'cold bath pond' by 1832 are supported, but due to the

absence of datable artefacts, not confirmed, by the archaeological evidence. The date of the infilling of the 'cold bath pond' with gravel and sand is not clear, though the absence of the bath or pond on any large scale map, including the estate map of 1834, may be an indication that this was done soon after 1832. A sharp kink in the track immediately to the north of the Bath House (Fig. 10) demonstrates that it was constructed around the building or pond, and is therefore probably of early 19th-century date and does not directly overlie the path/walk depicted on the map accompanying Cumberland's 1796 description. This track was not recorded in detail until the OS map of 1888 when the Bath House and pond had clearly been forgotten about - two paths were shown running across the site of the building. This track retained its kink until, perhaps, 1939, when timber extraction necessitated its widening. It may be its was during this track realigning that the pottery and glass became incorporated in the upper level of the gravel of the infilled plunge pool/pond.

RECOMMENDATIONS

It was never intended to provide detailed recommendations in this report. However, a general observation concerning the Lady's Walk is included as well as two specific recommendations.

The general observation is that any restoration work on the walk should take cognisance of the archaeological evidence presented here. The restored walk should be close in course and character to the original as possible.

Restoration of the walk should take due note to the important buried remains of the Bath House. Great care must be taken during restoration not to damage these remains.

The large conifer tree located between trenches 8 and 9 at the Bath House should be felled to prevent further damage to the underlying archaeology. As the archaeological remains are securely buried, it is recommended that no further investigations or management work is required on the site.

ACKNOWLEDGEMENTS

I am most grateful to Roger Hallett, Friends of Hafod, for providing the historical references quoted here and for the copies of the photographs of the Derby 'Hafod' Service. Kind permission was granted to reproduce the Cold Bath illustration in this report.

THE POTTERY AND GLASS

by D. Brennan

Trench 1 surface of layer 2
1 fragment from body of free-blown 'cylindrical' wine bottle. Late 19th-century.
1 fragment from base of free-blown 'cylindrical' wine bottle. Late 19th-century.

Trench 1 layer 2
1 fragment from body of free-blown 'cylindrical' wine bottle. Late 19th-century.

Trench 3 layer 13
1 fragment from body of free-blown 'cylindrical' wine bottle. Late 19th-century.

Trench 4 rubble 22
1 rim sherd of plate or dish in white-bodied earthenware with blue transfer print. Late 19th- or 20th-century.
1 body sherd of unglazed red earthenware (plant-pot fabric). Late 19th - 20th century.

Trench 5 layer 25
1 body sherd of plain white earthenware, indeterminate form. 19th - 20th century.
3 fragments of window-pane glass. Late 19th- or 20th-century.

Trench 6 layer 31
2 body sherds from a plate in white-bodied earthenware with pale blue floral transfer print. Late 19th- 20th-century.
1 body sherd of white-bodied earthenware with blue and white banded decoration, indeterminate hollow form. Late 19th- or 20th-century.
1 fragment from body of 'cylindrical' wine bottle. 20th century.

Trench 8 layer 46
2 rim sherds from a plate in bone china. Undecorated with scalloped edge. Late 19th- or 20th-century.
1 body sherd from a bowl or jug in white-bodied earthenware with blue transfer print. Late 19th- or 20th century.
1 rim sherd of stoneware dripping jar. Late 19th- or 20th-century.
1 rim sherd of stoneware storage jar. Late 19- or 20th-century
2 body fragments and 1 base fragment from 'cylindrical' wine bottle. 20th century.
1 rim fragment from machine-made bottle. 20th century.
1 embossed body fragment from mineral- water bottle. 20th century.
1 base fragment from mineral-water bottle. 20th century.

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HAFOD: LADY'S WALK S4 AND COLD BATH SITE SPECIFICATION FOR AN ARCHAEOLOGICAL INVESTIGATION

Background

The Hafod Trust is proposing to restore the Lady's Walk from the Alpine Bridge to the Ystwyth (Cow) Meadow. Because of its poor condition, relatively major engineering works will be require to restore the walk to a standard approaching its original form. This work will by necessity be destructive. The major purpose of the excavations across the line of the walk is therefore to record its structure and character prior to destruction, with a strong secondary purpose of informing the restoration programme. Investigations on the two possible suggested sites of the cold bath are more research orientated. Here the primary purpose is to locate the structure, with a secondary purpose of characterising the remains. The results of the investigations will be related to previous research and placed in a wider context. Management recommendations/proposals for further work will be made for the cold bath site.

This specification has been prepared in accordance with *Hafod - Archaeological Guidelines*.

Investigation of the Lady's Walk

Three trenches will be excavated across the line of the walk (see enclosed plan for locations). The exact location to be determined in the field. Each trench will be 2m wide and extend across the full width of the path and on to the up-slope and down-slope sides. Approximate length 5-6m.

Trench 1 will be located on part of the path where there is considerable hill-wash over the up-slope side of the path's surface, and where there is no obvious outer revetment to the path.

Trench 2 will be located where the path seems to narrow and where there is a clear outer revetment to the path.

Trench 3 will be located where the path runs along a broad terrace. Here the path seems be of slightly different character and the information may provide a useful contrast with that from Trenches 1 and 2.

Trenches will be located on the previously undertaken survey using an EDM theodolite. All layers and deposits will be fully excavated. Plans and drawings will be made at 1:20 scale. Each archaeological entity will be recorded using Cambria Archaeology's single context recording system. Black and white and colour photography will be used. All heights will be related to OS data. Artefacts will be retained and provision made for their analysis. Any deposits encountered that may contain useful palaeoenvironmental evidence will be sampled. The trenches will be back-filled following excavation.

Cold Bath sites

Because of the difficult environment, it is unlikely that geophysics will provide reliable results on which to plan a strategy for trial trenching. The investigation of the two possible sites of the cold bath will therefore rely on excavation.

Site 1. On the line of the Lady's Walk. Pre-afforestation aerial photographs seem to show a structure in this location and an image on the Hafod dinner service can be interpreted as showing the bath here. There is no surface evidence for a structure, though the Walk terrace widens at this point. It is intended to excavate two trenches, one across the line of the path on the site on bath the other joining trench at right angles. Trench width 1m, total length *c.* 15m. If the excavation is successful in locating the site of the bath, then only that amount of work necessary to define and characterise the remains will be undertaken. Structural elements will be recorded but not excavated.

Site 2. A low mound of rubble and slate marks this site. Partially, but inconclusively excavated by Phillips in 1994. A large conifer would require felling prior to the excavation. The level of detail of the excavation will very much depend on the results form Site 1. If results from Site 1 are negative, then Phillip's trench (*c.* 1m x 5m) will be reopened and excavated down to surviving structural elements of the bath. These will be recorded but not excavated. If results from Site 1 are positive, then sufficient work will be undertaken the characterise the site (the present assumption being that if Site 1 is the Bath House, then Site 2 is demolition rubble from it).

Trenches will be located on the previously undertaken survey using an EDM theodolite. Plans and drawings will be made at 1:20 scale. Each archaeological entity will be recorded using Cambria Archaeology's single context recording system. Black and white and colour photography will be used. All heights will be related to OS data. Artefacts will be retained and provision made for their analysis. Any deposits encountered that may contain useful palaeoenvironmental evidence will be sampled. The trenches will be back-filled following excavation. Prior to back-filling, sensitive remains will be covered with plastic sheeting.

Reporting

Six copies of the report detailing all the findings of the investigations will be provided. The report will contain recommendations to the future management and/or future investigation of the Cold Bath. Copies of the report will be lodged with the National Monuments Record and the regional SMR. An archive of the investigation will be prepared. This will be lodged with the National Monuments Record.

K Murphy. Archaeoleg Cambria Archaeology. 27 February 1998
Revised 27 March 1998

CONTENTS OF ARCHIVE

(Archive deposited with the National Monuments Record, RCAHMW)

A.1 Copy of final report
A.4 Copy of final report on disk

B.1 Context records - disk
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C.1 Catalogue of drawings
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D.1 Catalogue of photographs
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E.14 Specialist correspondence and notes

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(drawings on c. A3-A1 sheets)

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CATALOGUE OF BOXED FINDS

(Finds temporarily stored with Archaeoleg Cambria Archaeology)

Context 2
wine bottle sherds

Context 13
wine bottle sherds

Context 22
pottery sherds
samples of brick and stone
mortar sample
samples of brick, stone and roofing slate

Context 25
3 iron nails
1 curved iron blade
fragments of window glass

Context 28
samples of brick, tile and stone

Context 31
pottery sherds
wine bottle sherds

Context 44
iron nail

Context 45
pottery sherds
glass bottle sherds

Context 46
fragments of painted plaster

Context 54
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From rubble spread - collected by L. Hallett in 1980s
piece of carved Carara marble
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lead window came

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22. General view of trenches 6-9 from west.

23. West end of Trench 6 showing layer 29.

24. Trench 6 showing exposure of drainage gullies.

25. Trench 6 showing wall 41 and sub-floor/wall 42.

26. Trench 6 showing wall 41 and sub-floor/wall 42.

27. Trench 6 showing wall 41 and sub-floor/wall 42.

28. Trench 6 showing wall 41, dressed stone detail.

29. Trench 6 showing wall 49, detail of dressed stone.

30. Trench 7 showing culvert base 34.

31. Trench 8.

32. Trench 9.

33. Trench 9.

34. Trench 9, detail of step.

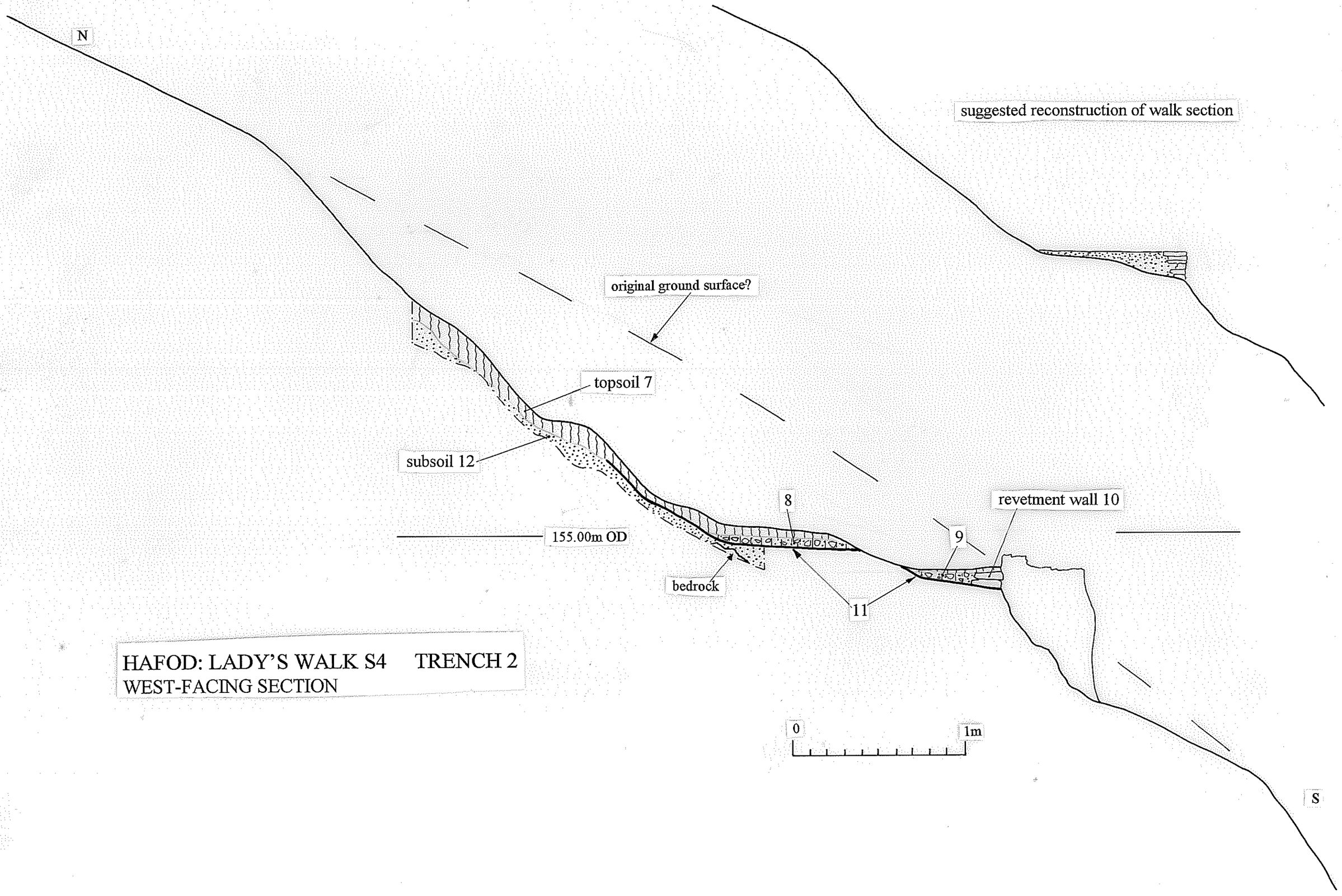
35. Trench 9.

36. Trench 9.

37. Trench 9.

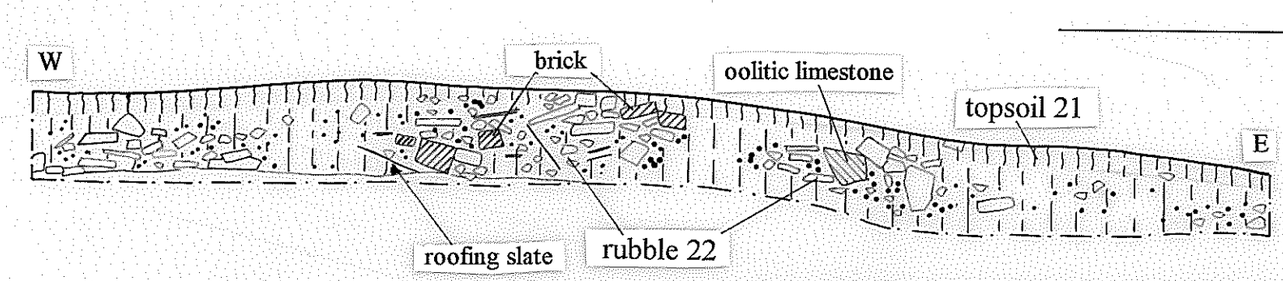
38. Trench 9.

39. Trench 9.

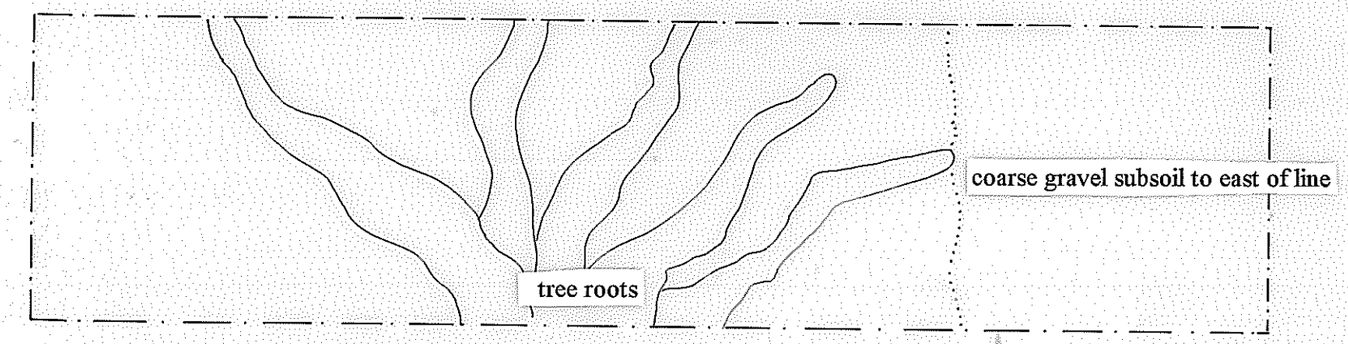


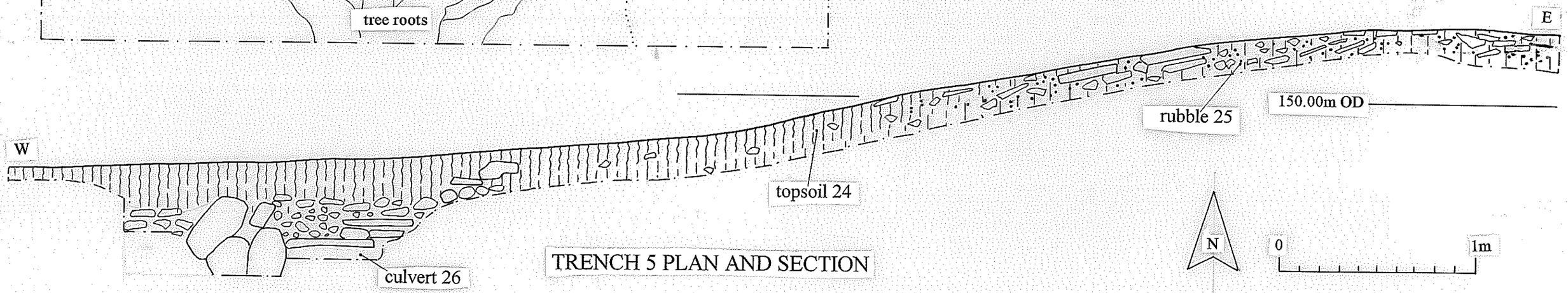
HAFOD: LADY'S WALK S4 TRENCH 2
WEST-FACING SECTION

HAFOD: THE COLD BATH
TRENCHES 4 & 5

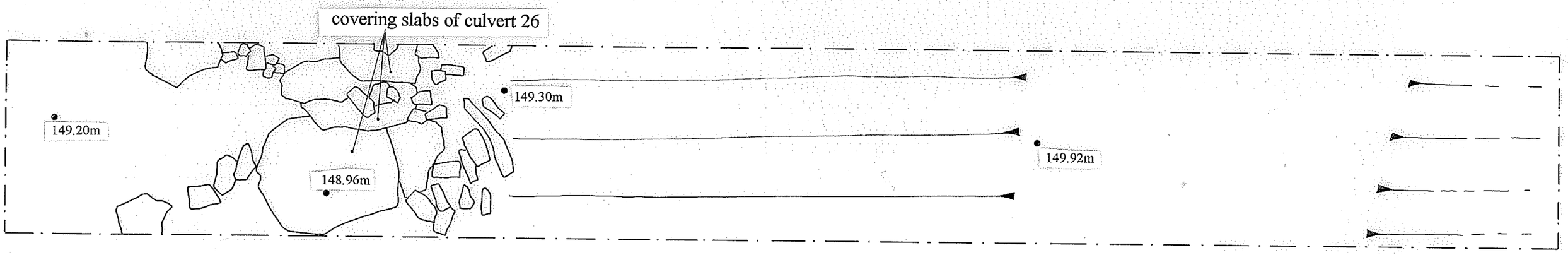


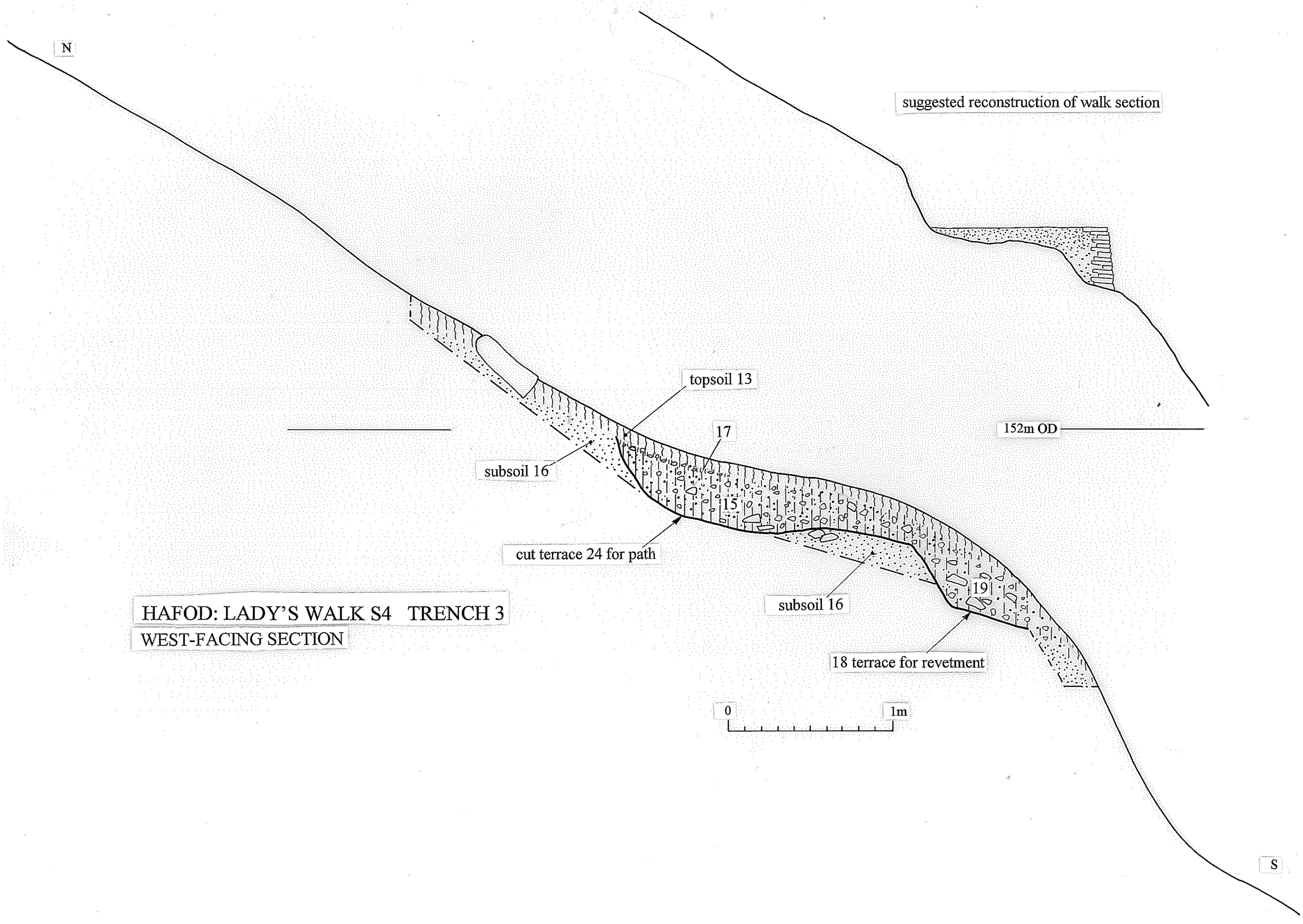
TRENCH 4 PLAN AND SECTION





TRENCH 5 PLAN AND SECTION



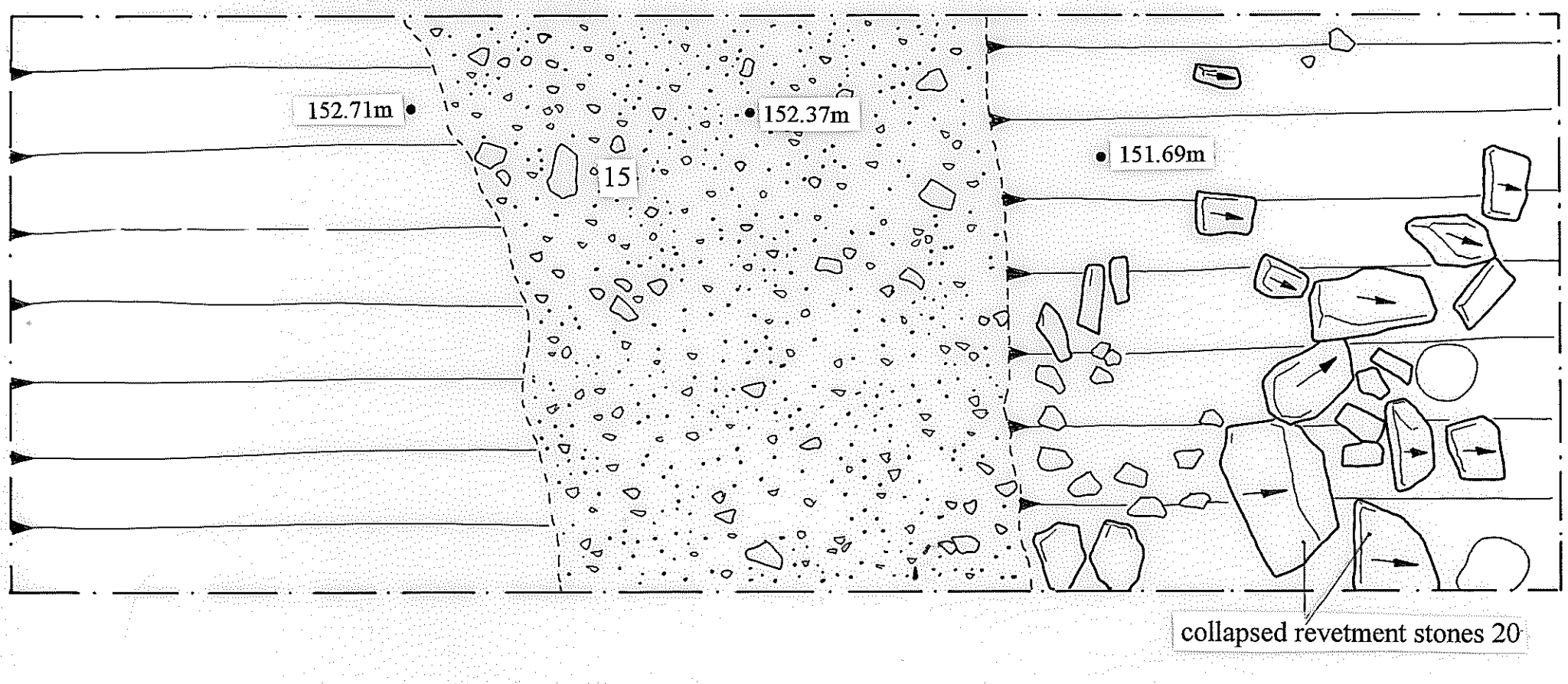


HAFOD: LADY'S WALK S4 TRENCH 3

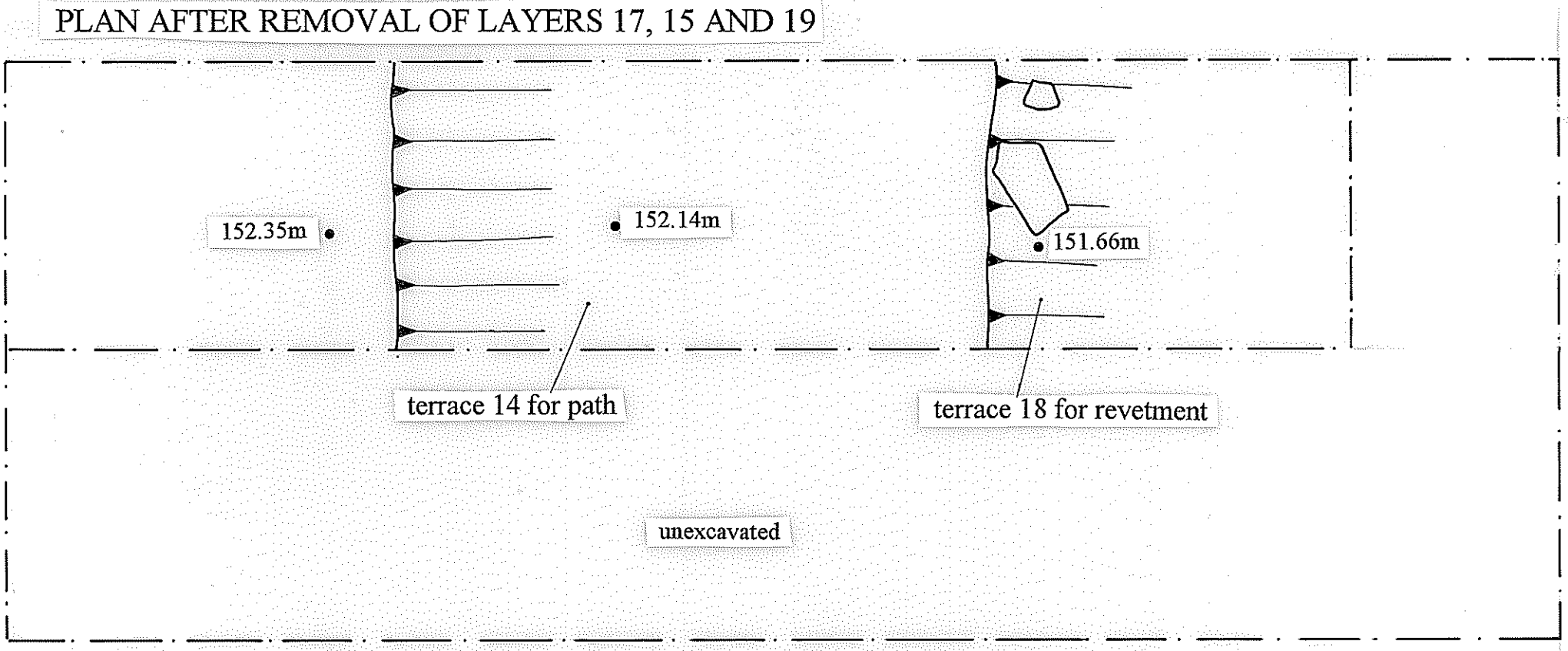
WEST-FACING SECTION

HAFOD: LADY'S WALK S4 TRENCH 3

PLAN AFTER REMOVAL OF TOPSOIL

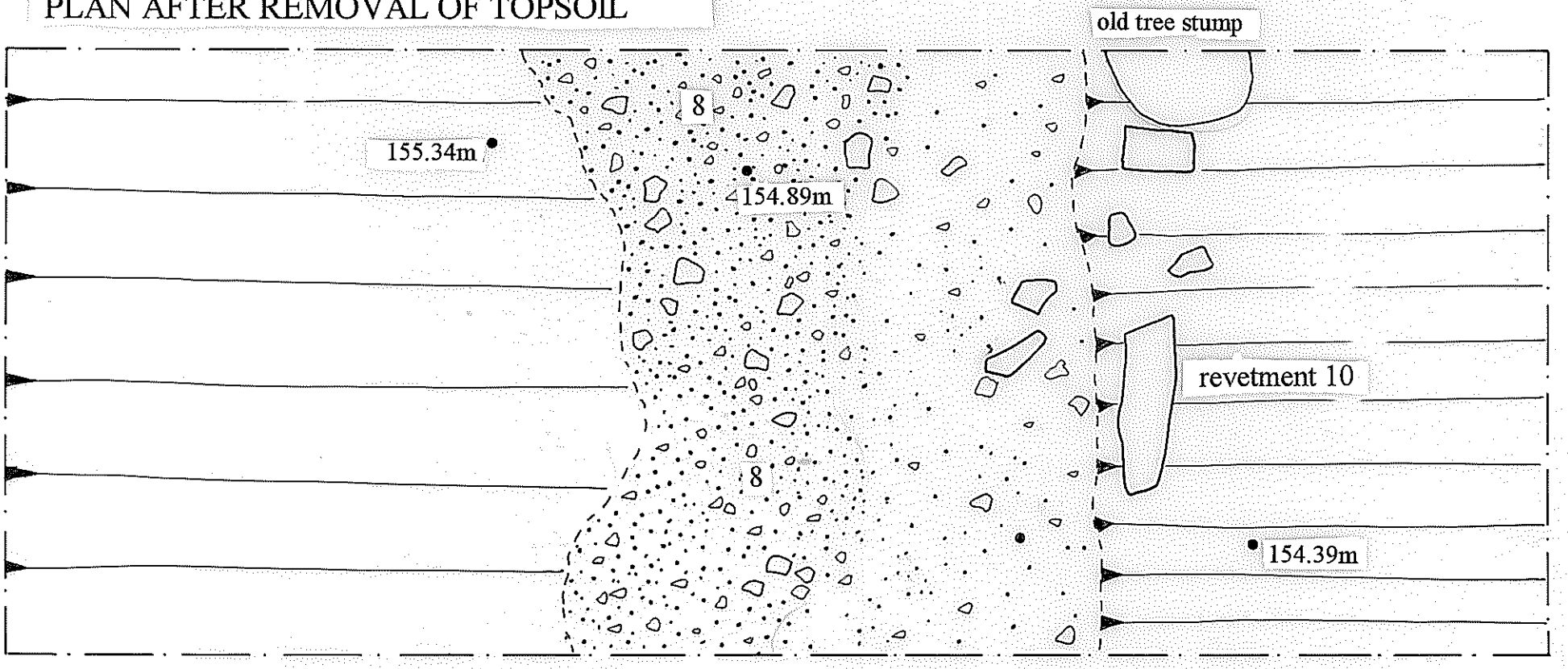


PLAN AFTER REMOVAL OF LAYERS 17, 15 AND 19

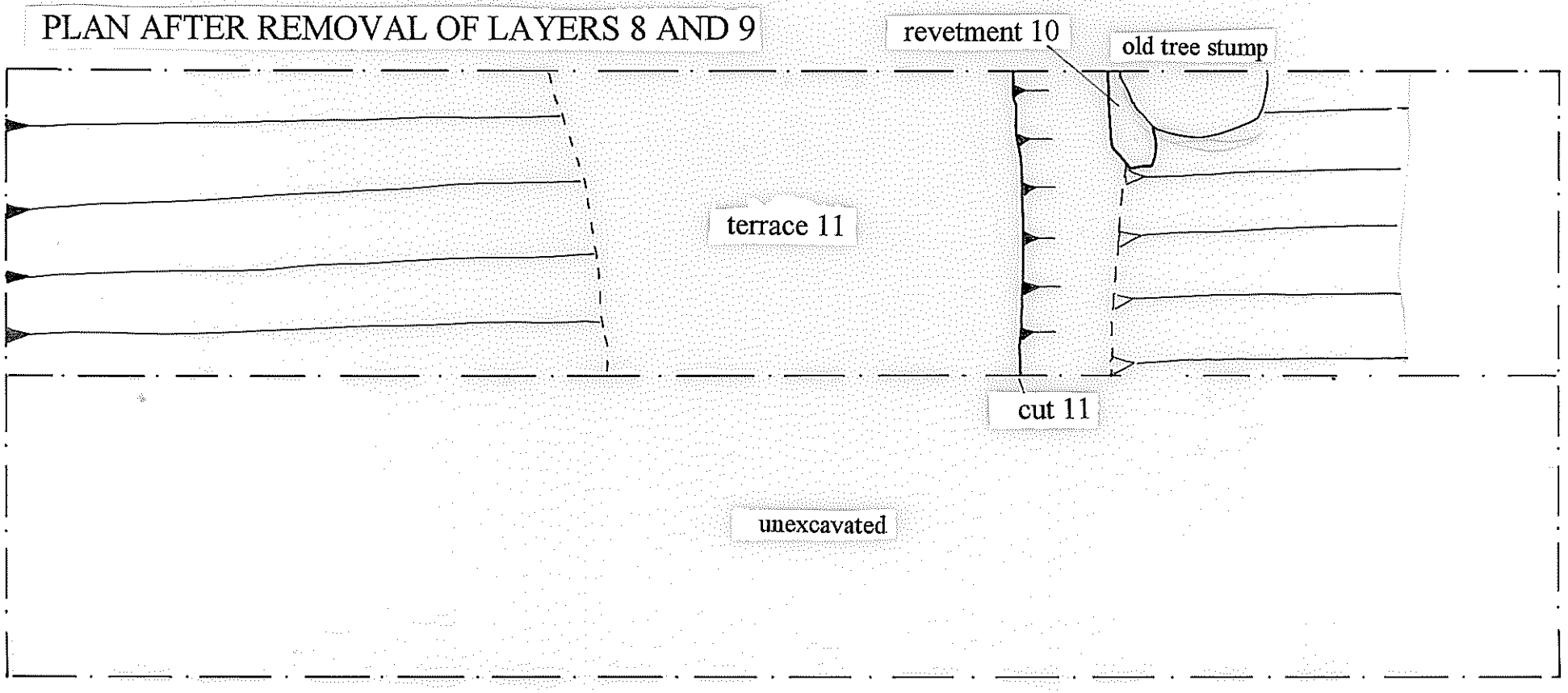


HAFOD LADY'S WALK S4 TRENCH 2

PLAN AFTER REMOVAL OF TOPSOIL

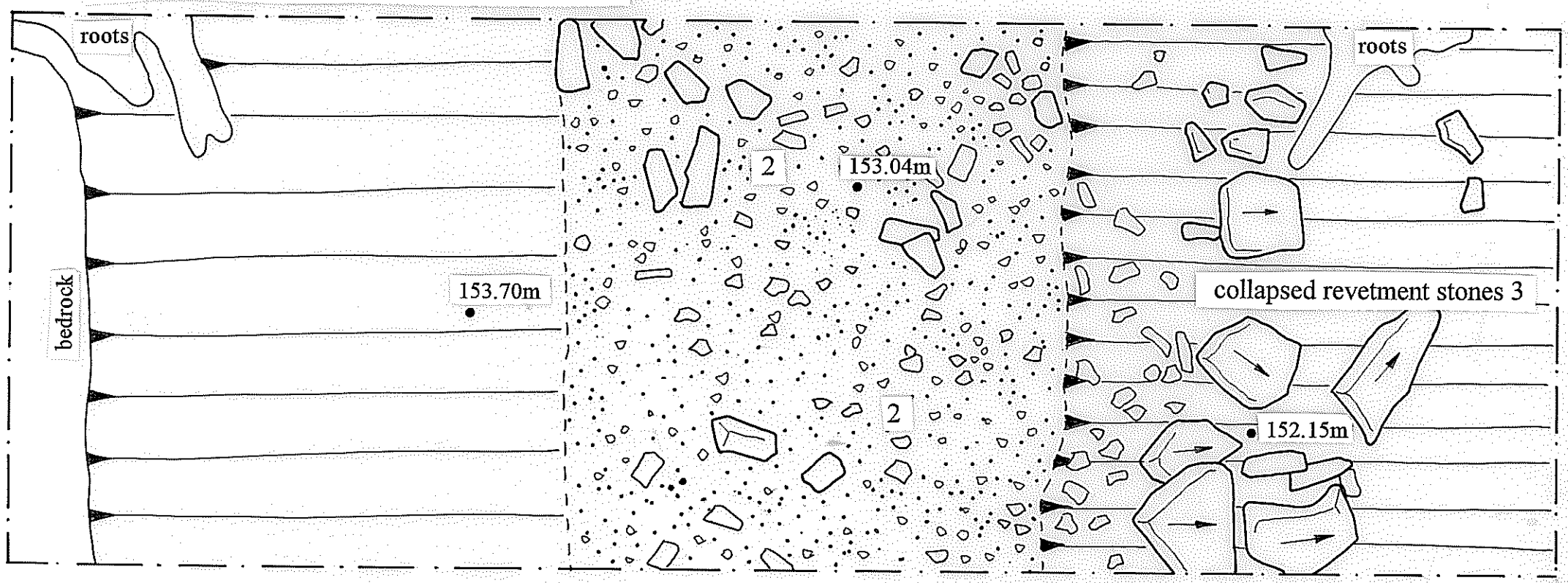


PLAN AFTER REMOVAL OF LAYERS 8 AND 9

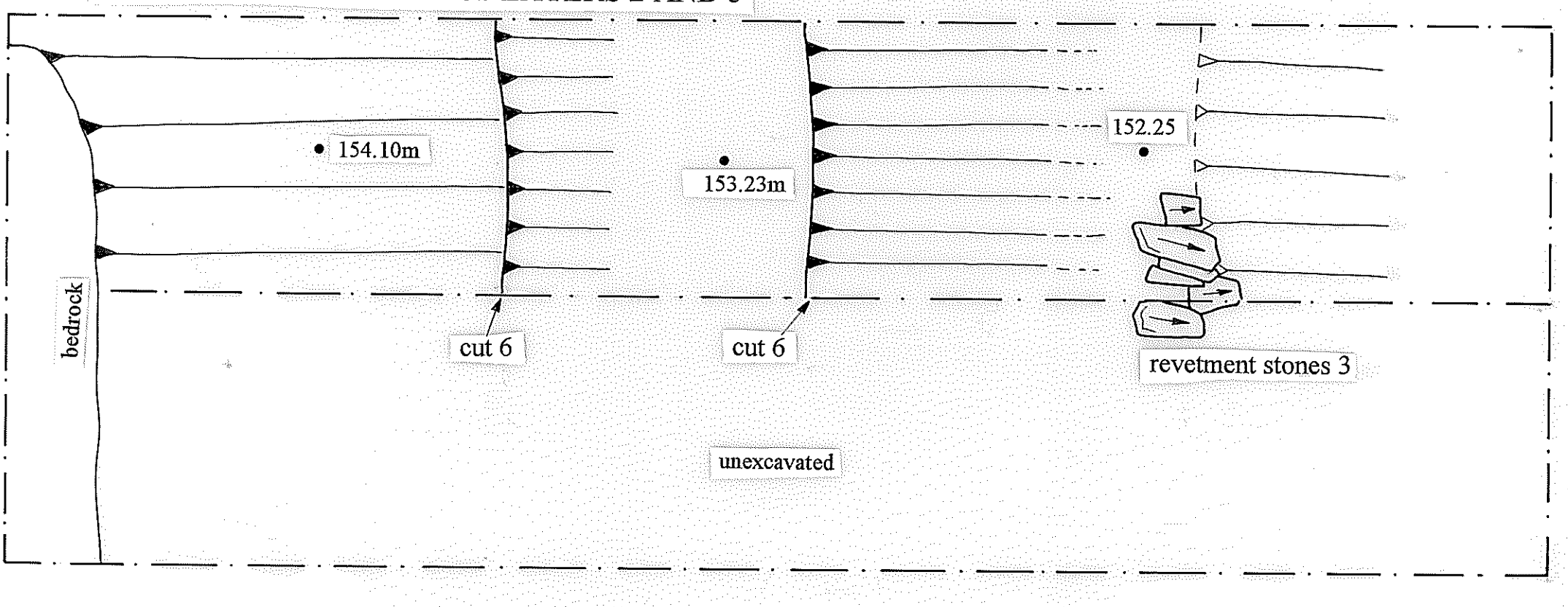


HAFOD: LADY'S WALK S4 TRENCH 1

PLAN AFTER REMOVAL OF TOPSOIL



PLAN AFTER REMOVAL OF LAYERS 2 AND 5



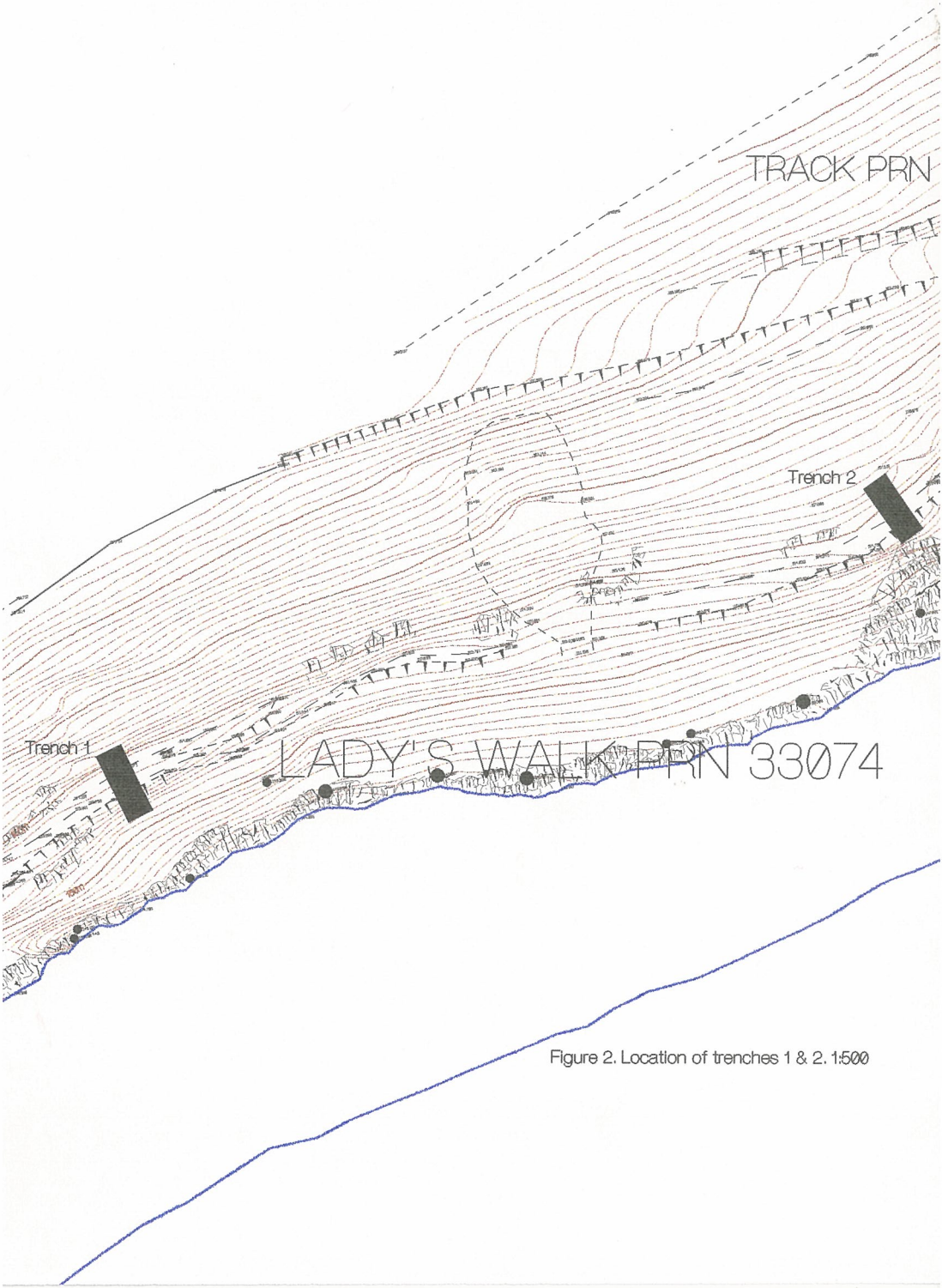


Figure 2. Location of trenches 1 & 2. 1:500

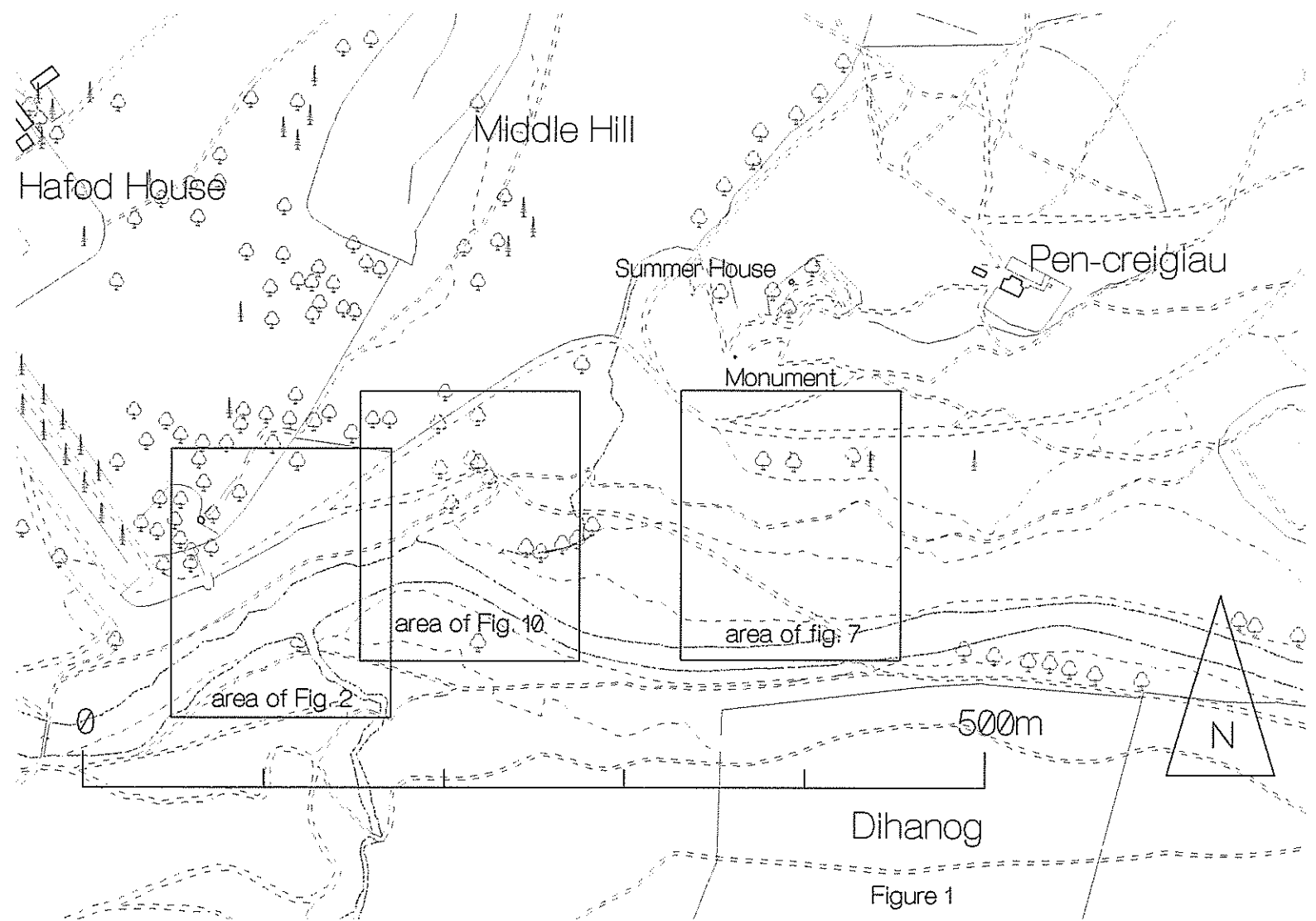

Middle Hill
Hafod House
Summer House
Pen-creiglau
Monument
area of Fig. 10
area of fig. 7
area of Fig. 2
0
500m
N
Dihanog

Figure 1