EXCAVATIONS AT THE COLD BATH HOUSE DINEFWR PARK

JULY 2007



Paratowyd gan: Archaeoleg Cambria Ar gyfer: Yr Ymddiriedolaeth Genedaethol Prepared by: Cambria Archaeology For: The National Trust



ARCHAEOLEG CAMBRIA ARCHAEOLOGY

RHIF YR ADRODDIAD / REPORT NO. 2007/74 RHIF Y PROSIECT / PROJECT RECORD NO. 63189

> Gorffennaf 2007 July 2007

EXCAVATIONS AT THE COLD BATH HOUSE DINEFWR PARK 2007

Gan / By

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CONTENTS

SUMMARY	1
INTRODUCTION	2
ARCHIVE ANALYSIS	3
SITE LOCATION, DESCRIPTION and HISTORY	4
EXCAVATION RESULTS	5
Building plan and construction Exterior surfaces Retaining wall Demolition Later water management features Finds	5 6 7 7 7
DISCUSSION	9
CONCLUSIONS	11
ARCHIVE DEPOSITION	11
ACKNOWLEDGEMENTS	11
BIBLIOGRAPHY	12
ILLUSTRATIONS	
Map 1: Location map Figure 1: Plan of excavated features	

Figure 2: Schematic transect through excavated structures Figure 3: Sketch of a proposed bath house at Hillington Hall, Norfolk Photo 1: East facing side of retaining wall Photo 2: West end of south facing retaining wall Photo 3: South facing retaining wall showing door to spring Photo 4: Detail of recess/rebuild in retaining wall Photo 5: Detail of exposed masonry linking the bath house to the spring Photo 6: The north wall of the bath house Photo 7: Exposure of top of demolition rubble Photo 8: Pool walls and south wall of bath house Photo 9: Southeast corner of pool structure Photo 10: Exposed footings looking west Photo 11: Aligned stonework 023 Photo 12: Plaster lining of plunge pool Photo 13: Semi circular step footings 030 Photo 14: Detail of semi-circular step footings Photo 15: Exposed footings of wall 020 Photo 16: Bath house footings Photo 17: Surface 028, aligned stonework 029 and wall 025 Photo 18: Retaining wall 027 Photo 19: Fragments of dressed stone window surrounds Photo 20: Fragments of polished marble

Photo 21: A public tour of the site

SUMMARY

An archaeological evaluation excavation was undertaken by Cambria Archaeology in July 2007, on behalf of the National Trust at the postulated location of the cold bath house located within the Deer Park at Dinefwr Park Llandeilo (NGR SN6077722539). The excavation was intended to ascertain the presence, character and degree of survival of the bath house, with a view to informing the future management of the site. A series of hand-dug trenches were excavated to locate and reveal surviving elements of the demolished structure. Sufficient portions of surviving sub-floor wall footings and the remains of the plunge pool were exposed, from which the plan of the building can be extrapolated. Building materials recovered during the excavation provide some evidence for the construction and possible appearance of the building.

The excavation was undertaken with the participation and engagement of volunteers from the local community and assistance from National Trust Staff (see acknowledgements for names of volunteers). A successful public open day was held to present the discoveries made to visitors to Dinefwr Park.

INTRODUCTION

Cold bathing, involving various forms of vigorous exercise such as riding or walking, followed by a cold plunge and subsequent 'recuperation', became a fashionable health treatment during the second half of the 18th century (alongside other forms of hydrotherapy, such as spas). Cold baths became a feature of the classically-influenced pleasure grounds, parks and gardens of the wealthier classes.

Some examples of cold bath houses from this period survive intact, but no two are the same. They range in style and extravagance from simple open-air pools to ornate and well appointed multi-storeyed buildings.

At Powis Castle the Cold Bath is a simple open-air stone-lined plunge pool set in rustic alcove (Murphy K, *pers. Com.*). A cold bath house at Hafod, Ceredigion was an elegant gothic style structure built of Bath Stone with Carrara Marble fittings, with crenellated, possibly open-sided walls, and a main entrance flanked by smaller openings (Murphy 1999). At Alltyrhodyn in the Teifi valley, the bath house is a two-roomed gothic structure, with a changing room leading to a five-sided room containing a rectangular pool (Cadw/ICOMOS 2002).

At Piercefield the cold bath house was a much more utilitarian structure compared with the one at Hafod, with a glazed tile plunge pool, a fireplace and small detached changing room. Early 19th century drawings show a small, cottage-like structure (Murphy K, *pers. com.*).

At Middleton Hall there are numerous water features including a small circular plunge pool with five steps leading down to it. This feature may have been a cold bath, but may also have been a feature identified as a 'grotto' in 1824 (Cadw/ICOMOS 2002).

Despite its popularity, cold bathing was a short-lived trend that had generally disappeared by the start of the 19th century. It would seem that the bath house at Dinefwr Park followed this trajectory.

The bath house is thought to be the only purpose-built garden feature within the park. The presence and location of the spring was well known and although no standing remains survive, the bath house was assumed to be located close by.

The excavation was intended to ascertain the location, extent and condition of any surviving elements of the bath house, to inform future management and presentation of the site.

ARCHIVE ANALYSIS

Prior to the excavation, documentary research was undertaken at the Carmarthenshire Historic Environment Record (HER) in Llandeilo, the Carmarthenshire Records Office, Carmarthen, and at the National Library of Wales, Aberystwyth.

Although no documents specifically referring to the construction, use or demolition of the cold bath house were identified in the catalogues, a search of two partly catalogued boxes in the Dinefwr archive (NLW Dynevor A boxes 38 and 39) was undertaken.

Parcel 18 contained a document from the Royal Agricultural Society of England Laboratory 12, Hanover Square, London (dated 15/04/1879), regarding two water samples sent for analysis; one from the cold bath and one from the 'large cedar' waters from the Dynefwr estate.

Per Imperial gallon the cold bath sample yielded a solid residue weighing 18.2g to 20.44g when dried at 120/c. The residue consisted of Carbonate of lime (CaCO3), and carbonate of magnesia (MgCO3), lime sulphate (CaSO4), sodium chloride (Na Cl) and nitric acid (HNO3 in the form of nitrates). The large cedar water was found to be harder and purer than the cold bath spring water. Both waters were deemed good for drinking but not good for washing or boiling.

The cold bath is mentioned in various articles on the history and landscape of Dinefwr Park (see bibliography section), but these refer primarily to Ordnance Survey cartographic depictions, the single known artistic representation (see next section) and the reference to the bath house in a letter regarding 'Capability' Brown's recommendations for improvements to the park land (NLW Dyn C1).

SITE LOCATION, DESCRIPTION and HISTORY

There is no documentary evidence pertaining to the construction of the cold bath house or subsequent activities at the site. The exact date of construction of the bath house and its later destruction are therefore uncertain.

What is assumed to be the bath house at Dinefwr Park is represented in a painting of Dinefwr Castle by an unknown artist which is thought to date to 1660-70. The structure depicted appears to be a classical portico composed of two columns and a pediment. This would be a suspiciously early date for a cold bath house, perhaps suggesting that the structure depicted is not the bath house, or was added to the painting at a later date. Or the assumed date of the painting is incorrect. The painting is on display at Newton House).

The bath house is, however, mentioned in estate records following a visit to Dinefwr Park in 1775 by 'Capability' Brown, who made several suggestions for possible improvements or alterations to the park landscape. Brown suggested that 'the lawn near the Cold Bath to be enclosed with a pale. The banks of the River sloped on each side and the inclosure allotted for pleasure ground' (NLW Dyn C1). It is thought, however, that these measures were not implemented. The site also lies on the route of a track which may have been part of a formal 'walk'.

The bath house is also indicated on early Ordnance Survey maps, although shown in slightly different locations. The Original Surveyors drawings of 1813 at 2 1/2'' to 1 mile (sheet 188), indicates a rectangular building labelled 'Bath'. The Old Series 1" to 1 mile survey edition of 1831 (sheet no. XLL) also indicates the presence of the bath.

The Ordnance Survey 1st edition map circa 1886 does not depict the bath house, but does indicate the bath house retaining wall and the smaller of the two hydraulic ram houses that exist near the site today.

The Ordnance Survey 2nd edition map circa 1909 indicates both hydraulic ram houses and their tanks (all of which survive at the site today).

The hydraulic rams were used to pump water from the spring site up to large cisterns on Fern Hill for use in Newton House.

As commonly occurs, the site of the 18th century cold bath house has recently become confused with a Roman bath house that is believed or assumed to have existed in association with the two Roman forts that have been identified within Dinefwr Park. No evidence of Roman period activity at the site was encountered. The true location of any Roman bath house is yet to be ascertained.

EXCAVATION RESULTS

The site was initially cleared of bracken and brambles to reveal the terrace wall cut into the slope and containing the metal door to the spring. It was hoped that details in the construction of the wall might provide clues to the location of the demolished bath house and its relation to the extant terrace wall and later watermanagement features.

The terrace wall showed evidence of several repair, re-building or modification episodes, but no evidence to suggest that it ever formed part of the bath house structure itself. Although no drawn record of this wall was made, a photographic record of its main features was (see photos 1-4 and 18).

Next a series of 1.0m wide trenches were hand-dug in order to ascertain the presence of surviving remains of the bath house structure within the terrace area. On encountering stone wall footings, the trenches were extended to ascertain the extent and plan of the original building. The trenches extended further in several locations to address specific queries about the character of the building.

The active spring at the site made excavation of the western part of the site impractical. The constraints of the archaeological goals, time, weather, and resources also made total exposure of the site impractical.

Turf and topsoil (001) was removed to reveal the top of a deposit of demolition debris (011) extending across the whole of the excavated area (see photo 7). The demolition debris included roof tiles, ceramic drainage piping, mortar fragments, rubble stone and glass fragments.

Building plan and construction

The demolition deposit was removed to reveal the tops of wall footings defining the footprint of the bath house building. This ascertained that the building had been comprehensively demolished to below floor level. Between the footings, demolition debris was found to lie directly upon natural soil or bedrock, which appeared to slope down towards the south. Backfill material had been piled against the interior face of the footings to level up the sloping natural.

Within the footprint of the building, the eastern portion of the plunge pool was also located (019). The pool appeared to have been built within a construction cut excavated after the footings of the building were constructed. The pool construction cut was backfilled with building stone rubble and occasional brick fragments rather than the natural shale bedrock. A roughly constructed linear arrangement of un-mortared stones (023) revealed along the eastern edge of the pool construction cut, appeared to have no structural purpose or integrity, and was presumed to be a levelling-up deposit or an attempt to strengthen the top edge of the cut during construction.

All wall footings and the pool structure were constructed from rough limestone rubble, bonded with lime mortar. The wall footings were generally 0.65m wide, the north-south pool wall was 0.80m wide, while the east-west pool wall was 0.55m wide. The area does not appear to have been levelled prior to construction of the building. Footings for the north wall survive to a depth of 0.45m while the footings for the south wall survive to a depth of 0.95m.

The extrapolated external measurements of the bath house are 9.20m long (eastwest) by 6.0m wide (north-south). The pool is 2.75m wide (north-south) and is assumed to have been square. The pool survives to a depth of 1.06m, but may originally have been around 1.50m deep. This leaves a 0.95m space between the edge of the pool and the inside edges of the north and south wall footings, and a 4.0m space between the eastern edge of the pool and the inside edge of the eastern bath house wall. This was presumably a resting and changing area.

Extending from the wall face half way along the footings of eastern wall, a semicircular arrangement of stones was revealed, with a diameter of 1.20m. These are presumed to indicate the location of a semi-circular stepped entrance into the building. The stones forming the outline of the semi-circle are of dressed limestone, and appear to be covered by a layer of lime concretion, perhaps derived from the spring water. The interior stones are not dressed, but are recessed into the footings. There was no surviving evidence of the stones of the semi-circle ever having been mortared, perhaps suggesting they were a bedding layer or in-fill behind steps of finer materials and construction, that was subsequently robbed for re-use elsewhere.

The interior of the plunge pool was found to be faced with very hard smooth lime mortar, with no evidence of paint, tile grouting scars, or other evidence for having been faced with a more durable or decorative material. The base of the plunge pool, however, had been removed, perhaps suggesting it had been lined with marble.

Excavation to ascertain the west edge of the building was impractical due to the presence of the active spring.

Exterior surfaces

Portions of the exterior of the building were exposed to the north, south and east. A surface (015) constructed from un-dressed, flattish stones was revealed between the north wall of the bath house and the terrace wall. The eastern extent of this surface was not excavated. Two or three courses of stonework (022) connecting the bath house with the spring were also revealed, but the exact manner in which the two were originally connected is unclear due to subsequent alterations.

To the south of the building, demolition/construction debris was removed down to a natural soil/bedrock horizon. No evidence of an external surface was identified. Any such surface may have been robbed when the building was demolished or when the tank and pump house were constructed.

To the east of the building, the remains of a surface roughly constructed from crudely dressed limestone slabs (028) was revealed. The western edge of this surface was 0.70m from the eastern face of the bath house wall (025). One explanation for this gap is that the stone surface pre-dates the construction of the bath house, and was truncated when the footings and semi-circular step were built. Alternatively, the gap may have been filled with stone slabs that capped a possible drain suggested by two alignments of stones at the southeast corner of the building (029).

A small excavation was made to investigate the area between the bath house and the path running along the south side of the site. This was not fully excavated and proved inconclusive beyond suggesting that the area had been significantly landscaped by dumping demolition debris.

Retaining wall

The approximately L-shaped retaining wall cut into the hill slope defines the north and west limits of the site. The western length has collapsed at its southern end, where it has been undermined by the flow of spring water. The wall face shows evidence of at least one repair (see photo 1). The northern portion of the retaining wall (photos 2,3 and 4) also shows evidence of at least one re-build. The basal 0.60m of the wall is the original construction. The later rebuild is set back from the lower face, forming an irregular ledge or sill.

The brick built door opening and the iron door appear to have been inserted after the repair. The doorway gives access to a brick built passage 1.60m long, 0.55m wide and 1.16m high, leading to the point where the spring appears to emerge from the bedrock. This construction would appear to be contemporary with the later water management features described below. Also contemporary with this phase (or later) are a red brick, stone and slate construction in the angle of the retaining wall, which is associated with an iron pipe apparently leading to the brick tank. A ceramic pipe also leads to the brick tank from half way along the spring passage.

The area between the retaining wall and the brick tank has been covered with concrete, obscuring pipework associated with the brick tank and also obscuring remnants (022) of the connection between the retaining wall and the original plunge pool (photos 3 and 5).

A small excavation close to the pump house was not completely excavated, but suggested that there was a considerable depth of disturbed ground in this location.

Demolition

The difference in height to which the wall footings survive to the north and south, suggests that following demolition of the bath house (and before construction of the brick tank), the site was landscaped to follow a gradual slope down towards the south. This has resulted in the truncation of the southern extents of surface 028 and possible drain 029. It has also removed any potential evidence for an exterior surface on the south side of the bath house.

Later water management features

The later red brick tank cuts through the plunge pool and the south wall of the building, but the north and west walls may remain intact. Although not excavated, comparison of the levels of the base of the brick tank and the base of the plunge pool suggests that brick tank has cut through the base of the plunge pool (see figure 2).

Construction of pipework linking the larger hydraulic ram house and tank will also have resulted in disturbance to deposits along the south side of the bath house. The insertion of pipework channelling water from the spring to the brick tank now obscures, and may have at least partially destroyed, evidence of the relationship between the original plunge pool and the earliest phase of the retaining wall.

The smaller, and earlier hydraulic ram house is constructed to the south, and does not appear to have had a physical impact upon the bath house.

Finds

Finds recovered from the deposits overlying the wall foundations during the excavation consisted primarily of various building materials. The majority of the fabric of the bathhouse was demolished and, considering the general dearth of materials at the site, presumably removed for re-use elsewhere. The presence of some tile-stone roof tiles suggest that these may have been the original roofing

material. The bath house roof tiles may or may not have been re-used on the extant pump houses.

Fragments of un-frogged red brick were also recovered. How much of the bath house structure may have been brick built is uncertain. Red brick is present in the surround of the door to the spring and a single red brick measuring $0.24 \times 0.11 \times 0.06$ m was included in the construction of the plunge pool.

The south wall of the bath house includes footings of un-dressed rough limestone rubble with overlying walls consisting of roughly dressed limestone rubble, suggesting this may have been the main construction material. Fragments of possible ceramic water piping were also recovered.

Two fragments of carved oolitic limestone were recovered from within the backfill of the pool (see photo 19). These are thought to be fragments of window surrounds, although it is not possible to confidently extrapolate the style of openings from the fragments recovered.

Fragments of marble were also recovered (see photo 20). These are presumed to be remnants of the material with which the floor and walls may have been clad.

A variety of glass fragments were recovered from across the site. Much of this material seems too thin to have been glazing glass, and some is shaped, but no analysis of this material has yet been undertaken.

DISCUSSION

The presence of the spring at the site is likely to have been known for a considerable time but the extent to which it may have been used before construction of the bath house is uncertain. With the exception of the later water tank, there was no clear evidence to suggest that there was more than one phase of construction associated with the site.

The existing doorway and passage leading to the spring appear to date from the construction of the brick tank, but may have removed or obscured evidence of earlier built structures associated with the bath house.

The bath house is assumed to have been intentionally positioned within the wider designed landscape, to be viewed from a distance and from various viewpoints or approaches. It may also have been located on a formal recreational route through the deer park.

As it appears today, the shape of the recessed area cut into the hillside and the retaining wall, suggests that the bath house would have been primarily designed to look towards and be seen from the south. However, the excavated evidence suggests that the entrance to the bath house (presumably also its primary façade) is east facing. This may suggest that the building was originally designed to be seen from the east, northeast and southeast aspects. The eastern part of the recessed area may have appeared more open than it does at present, but soil deposits derived either from construction of the larger pump house, or erosion from the hill slope, may have obscured the eastern extent of the retaining wall.

The evidence of several rebuilds to the retaining wall suggests that it has been prone to collapse. It may be that the original recess was a different shape to that visible today.

A panoramic viewpoint looking west-southwest from the top of Fern Hill, may not have offered a view of the bath house. It would, however have been visible from the track through the woods on Fern Hill. It would also have been visible from the south east, approaching from the mill pond. It seems probable therefore that the bath house was closely associated with the now bracken-filled clearing to the southeast of the spring. Appreciation of this is nowadays hampered by the presence of the larger pump house.

The sole simplistic temple-like depiction of the bath house is at odds with the footprint of the excavated building, but this may be attributable to artistic licence rather than suggesting the two are different structures. No evidence that the building had been altered or extended was apparent.

It would appear from surviving evidence that no two bath houses were ever the same, so it is difficult to suggest how the structure at Dinefwr Park may have appeared. A sketch for a proposed bath house at Hillington Hall, Norfolk, circa 1760, (see figure 3) may be a reasonable parallel. The sketch appears to depict an open-sided structure. It is possible that the structure at Dinefwr Park was also open sided, as is perhaps suggested by the narrow space between the pool edge and the inside edges of the north and south walls (circa 1.0m). The recovery of fragments of carved stone probable window surrounds, however, suggests it was not open sided.

To the north of the bath house, above the retaining wall, are the remnants of an enigmatic structure whose form, purpose, and relationship with the bath house are at present unclear. It is not impossible that both structures are contemporary and associated, but equally they may represent different phases.

At some time the bath house was comprehensively demolished and the majority of the materials removed from the site.

The fact that the south side of the structure has been demolished to a greater depth, suggests that considerable effort was made to re-landscape the site, following demolition of the bath house. Alternatively, the site may already have been in a state of collapse before the building materials were removed, with the effect that it was easier to remove materials to a greater depth from the southern part of the building than from the northern part.

Two water management structures were subsequently constructed in the vicinity of the bath house (both of which still stand today) and were built to provide water to the house. A small building containing a hydraulic ram is depicted on the 1st edition Ordnance Survey map. By the time of the 2nd edition map a second, larger pump house had been built to the east of the bath house. The brick built tank visible today and which truncates the bath house remains, was also constructed at this time.

The earlier pump house and tank may have been situated south of the bath house (possibly then ruinous since it is not depicted on the 1st edition map) in order to collect water from the outflow pipe from the cold bath house. No evidence of an outlet has yet been identified. There is no evidence to suggest that the two later pump houses were constructed from materials recovered from the bathhouse.

No pipework associated with the later tank and pump house was encountered during the excavation, but can perhaps be assumed to run between the south wall of the bath house and the existing trackway.

CONCLUSIONS

Sufficient remains of the bath house were revealed to indicate its probable footprint and to indicate the extent to which the structure has been truncated by the later water tank. Figure 2 illustrates how the later water tank appears likely to have cut though the base and the north and south walls of the pool and the south wall of the bath house. The north and west walls of the bath house may, however, still remain largely intact. The building has been demolished to below floor level and to a greater depth to the south than to the north. Although the likely plan of the building has been ascertained, its original appearance remains speculative.

The location of the bath house within the wider designed landscape seems slightly at odds with how the landscape is perceived and understood today, and may suggest that more remains to be understood about the design of this part of the park and how it was used.

Further excavation to the east and south of the site might provide further clues as to the setting of the building. Excavation to the north, above the retaining wall, would greatly add to our understanding of the original character and appearance of the site.

Restoration or consolidation of the remains, while perhaps desirable, would be difficult to achieve without considerable cost and engineering. It is recommended that a permeable membrane is laid over the exposed remains before backfilling. It is also recommended that bracken growth is controlled to prevent further root damage to the surviving stonework. Consideration could be given to an information panel describing what has been discovered at the site and explaining those features that will remain visible above ground once the site has been backfilled

ARCHIVE DEPOSITION

An archive consisting of original drawings, record sheets, a copy of the report, photographs and other associated documentation will be compiled and initially stored at the Cambria Archaeology offices in Llandeilo.

ACKNOWLEDGEMENTS

Thanks to Nikki Cook, Phil Poucher and Helen Milne of Cambria Archaeology. Thanks also to volunteers Menna Bell, Sikko Vanderbrug, John James, Jess Dight and Holly-mae and Pam Steane-Price. Many thanks to Emma Plunkett-Dillon, Phil Parks, Paul Faulkner and all other National Trust staff and volunteers for their help and assistance in undertaking the project.

BIBLIOGRAPHY

Cadw/ICOMOS 2002 Register of Landscapes, parks and gardens of special historic interest in Wales Pt.1: Parks and Gardens

Colvin and Moggridge 2003 Parc Dinefwr Designed Landscape Survey

Keen, R 1991 Parc Dinefwr, Llandeilo, Dyfed. *Journal of Garden History vol 11*, no 4, 217-223

Moore D 1994 Dynefor Castle and Newton House: some 17th century pictures. *Archaologia Cambrensis 143*, 204-35

Murphy K 1999 Investigation of Thomas Johnes' late 18th century cold bath at Hafod, Ceredigion. *Archaeology in Wales 39*. 41-48

NLW Dyn C1. Copy of letter re: Mr Rice's intentions and Mr Brown's directions (c.1776)

Old series Ordnance Survey 1831, 1" to 1mile survey edition sheet no XLL

Original Ordnance Survey 1813, 2 1/2": 1 mile surveyors drawings sheet 188

Ordnance Survey 1st edition 1885, 1:10560

Ordnance Survey 2nd edition 1906, 1:2500



Map 1: Location map, based on the Ordnance Survey.

Reproduced from the 1995 Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Cambria Archaeology, The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No AL51842A

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Figure 1: Plan of excavated features



Figure 2: Schematic transect through excavated structures



Figure 3: Sketch plan and elevation of a proposed bath house at Hillington Hall, Norfolk, circa 1760. This may represent a similar structure to that excavated at Dinefwr Park. NB. No evidence of steps into the pool was identified at Dinefwr Park.



Photo 1: East facing side of retaining wall (collapsed)



Photo 2: West end of south facing retaining wall with later brick and stone water management feature



Photo 3: South facing retaining wall showing door to spring, and exposed masonry (to left) connecting spring to bath house. Beneath the water is a stone surface



Photo 4: Detail of recess/rebuild in retaining wall



Photo 5: Detail of exposed masonry linking the bath house to the spring



Photo 6: The north wall of the bath house (left) looking west



Photo 7: Exposure of top of demolition rubble



Photo 8: Pool walls (left center) and south wall of bath house (foreground), looking north. Note aligned stonework (023) to right of pool walls.



Photo 9: Southeast corner of pool structure (right) looking west, with south wall of bath house to left



Photo 10: Exposed footings looking west. Note remnants of stone flag surface in foreground



Photo 11: Aligned stonework 023, looking south



Photo 12: Plaster lining of plunge pool, looking south



Photo 13: Semi circular step footings 030 and remnants of surface 028, looking west



Photo 14: Detail of semi-circular step footings 030, looking south



Photo 15: Exposed footings of wall 020 looking north



Photo 16: Bath house footings looking west



Photo 17: Surface 028 (to left), aligned stonework 029 (center), and wall 025 (to right) looking south



Photo 18: Retaining wall 027, built on top of bedrock



Photo 19: Fragments of dressed stone window surrounds recovered from backfill of plunge pool (25cm scale)



Photo 20: Fragments of polished marble recovered from demolition debris (25cm scale)



Photo 21: A public tour of the site

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RHIF YR ADRODDIAD / REPORT NUMBER 2007/74

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Paratowyd yr adroddiad hwn gan / This report has been prepared by Duncan Schlee

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ar ran Archaeoleg Cambria, Ymddiriedolaeth Archaeolegol Dyfed Cyf. on behalf of Cambria Archaeology, Dyfed Archaeological Trust Ltd.

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Llofnod / Signature Dyddiad / Date

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadausydd gennych ar gynnwys neu strwythur yr adroddiad hwn

As part of our desire to provide a quality service we would welcome any comments you may have on the content or presentation of this report