

WASTE WATER TREATMENT WORKS,
LLANBEDR, GWYNEDD

ARCHAEOLOGICAL ASSESSMENT
(REUSED)

Report number 510

Prepared for
Symonds Group Ltd

July 2004

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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By

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ARCHAEOLOGICAL ASSESSMENT

SUMMARY

An archaeological assessment has been undertaken in advance of construction of a treatment works at Pensarn, Gwynedd. Though several sites of interest lie within the wider vicinity of the proposals, no archaeological site has been identified within the proposed site of the works, and there will be no impact upon the known archaeological resource.

1 INTRODUCTION

Gwynedd Archaeological Trust has been asked by Symonds Group to undertake an archaeological assessment in advance of the construction of a proposed treatment works at Pensarn, Llanbedr, Gwynedd (SH58152747). The area affected is shown on Symonds Drawing No. 59235/SL/01 Rev C.

The area lies within the Snowdonia National Park and the Ardudwy Landscape of Outstanding Historic Interest (HLW (Gw) 2).

2 SPECIFICATION AND PROJECT DESIGN

The basic requirement was for a desk-top survey and field search of the proposed area, in order to assess the impact of the proposals on the archaeological features within the area concerned. The importance and condition of known archaeological remains were to be assessed, and areas of archaeological potential and new sites to be identified. Measures to mitigate the effects of the construction work on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for filling these requirements were as follows:

- Desktop study
- Field walkover
- Report

3 METHODS AND TECHNIQUES

3.1 Desk top study

This comprised the consultation of maps, documents, computer records, written records and reference works, which form part of the Sites and Monuments Record (SMR), located at GAT, Bangor. The archives held by the Meirionnydd Record Office, Dolgellau were also consulted. Information about listed buildings was consulted by means of the CARN (Core Archaeological Index), which is the online index of the Royal Commission on Ancient and Historic Monuments, Wales. Relevant aerial photographs from the collection at RCAHM, Wales were examined. A previous assessment report examining part of the route was consulted (Gwyn D. Rh. 1996. *Llanbedr to Harlech Link Main, Archaeological Assessment* (Gwynedd Archaeological Trust Report 208) as was Kelly R, *The Ardudwy Survey: Fieldwork in Western Merioneth 1971-81* although the latter report concentrated mainly on the uplands to the east of the survey area.

Sites, buildings and find spots listed in the GAT SMR were identified (Fig. 2) within three zones. Those within about 1km of the site were identified in order to give background information relevant to understanding the area. Those within 100m, might have direct relevance for understanding the proposed site, and finally those directly on the site, might be physically affected by construction.

3.2 Field Search

The field search was undertaken on the 27th of July 2003, when the site was visited and examined.

3.3 Report

The available information was synthesised to give a summary of the archaeological and historic background and of the assessment and recommendations, as set out below. The separate features, their evaluation and recommendations are listed separately, and a summary of the overall assessment of the area is given at the end.

The criteria used for assessing the value of features was based upon those used by the Secretary of State for Wales when considering sites for protection as scheduled ancient monuments, as set out in the Welsh Office circular 60/96. The definitions of categories used for impact, field evaluation and mitigation are set out below.

3.3.1 Categories of importance

The following categories were used to define the importance of the archaeological resource.

Category A - Sites of National Importance.

Scheduled Ancient Monuments, Listed Buildings of grade II* and above, as well as those that would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites that are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Grade II listed buildings and sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites that are of minor importance or are so badly damaged that too little remains to justify their inclusion in a higher category.

For Category D sites, rapid recording, either in advance of or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites, the importance of which is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation. By the end of the assessment there should usually be no sites remaining in this category. In this case several areas of unknown potential have been allocated to this category. These require environmental sampling which should be carried out during the pipeline works.

3.3.2 Definition of Impact

The impact of the road development on each site was estimated. The impact is defined as *none, slight, unlikely, likely, significant, considerable or unknown* as follows:

None:

There is no construction impact on this particular site.

Slight:

This has generally been used where the impact is marginal and would not by the nature of the site cause irreversible damage to the remainder of the feature, *e.g.* part of a trackway or field bank.

Unlikely:

This category indicates sites that fall within the band of interest but are unlikely to be directly affected. This includes sites such as standing and occupied buildings at the margins of the band of interest.

Likely:

Sites towards the edges of the study area, which may not be directly affected, but are likely to be damaged in some way by the construction activity.

Significant:

The partial removal of a site affecting its overall integrity. Sites falling into this category may be linear features such as roads or tramways where the removal of part of the feature could make overall interpretation problematic.

Considerable:

The total removal of a feature or its partial removal which would effectively destroy the remainder of the site.

Unknown:

This is used when the location of the site is unknown, but thought to be in the vicinity of the proposed road.

3.3.3 Definition of field evaluation techniques

Field evaluation is necessary to fully understand and assess most class E sites and to allow the evaluation of areas of land where there are no visible features but for which there is potential for sites to exist. Two principal techniques can be used for carrying out the evaluation: geophysical survey and trial trenching.

Geophysical survey most often involves the use of a magnetometer, which allows detection of some underground features, depending on their composition and the nature of the subsoil.

Trial trenching allows a representative sample of the development area to be investigated at depth. Trenches of appropriate size can also be excavated to evaluate category E sites. Trenching is typically carried out with trenches of between 20 to 30m length and 2m width. The topsoil is removed by machine and the resulting surface is cleaned by hand, recording features. Depending on the stratigraphy encountered the machine may be used to remove stratigraphy to deeper levels.

3.3.4 Definition of Mitigatory Recommendations

None:

No impact and therefore no requirement for mitigation measures.

Avoidance

Where possible, features that may be affected should be avoided. Sometimes this could mean a change in layout, design or route. More usually it refers to the need for care during construction to avoid accidental damage to a feature. This may be achieved by marking features or areas, for example with warning tape, before work starts, or in sensitive cases carrying out a watching brief.

Detailed recording:

Detailed recording requires a photographic record, surveying and the production of a measured drawing prior to the commencement of the works on site.

Archaeological excavation may also be required depending upon the particular feature and the extent and effect of the impact.

Basic Recording:

A photographic record and full description, and limited measured survey where applicable.

Watching brief:

Requiring observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers or structures.

It can be further defined as comprehensive (present during all ground disturbance), intensive (present during sensitive ground disturbance), intermittent (viewing the trenches after machining) or partial (as when seems appropriate).

4 ARCHAEOLOGICAL RESULTS

4.1 Topographic description

The site is on low-lying ground adjacent to the River Artro. Strong banks protect much of the coastal flood plain, which is characterised by large enclosures defined by ditches draining into the Artro. Wind blown sand is characteristic of the areas to the north at Llandanwg and south at Mochras. The early churchyard at Llandanwg is lost under the sand and the church itself is often inaccessible for the same reason. The coastal plain provides a convenient transport corridor and contains both the Cambrian Coast Railway Line and the A496 road.

The site lies within a designated *Landscape of Outstanding Historic Interest* (HLW Gw 2, Ardudwy), described as 'A large, exceptionally archaeologically rich and well-studied landscape, situated on the western flanks of the Rhinog Mountains, containing extensive relict evidence of recurrent land use and settlement from prehistoric to recent times' (*Register of landscapes of outstanding historic interest in Wales*, 1998, 76). The site of the proposed works falls into a sub-character area (No. 14 Coastal plain behind RAE Llanbedr) and described as 'the low-lying coastal floodplain behind Morfa Dyffryn it includes land to the south and north of the Artro where it flows from the hillslopes across the plain and into the sea' (Thompson 2003, 53).

4.2 Archaeological and historical background

4.2.1 Prehistory

Though the surrounding area is relatively rich in archaeology and history, the immediate locale on the flood plain would always have been too wet in earlier periods for settlement. To the south, on higher ground and close to the church at Llanbedr, are a pair of standing stones that mark the start of a route into the uplands heading north-east into the uplands. Other Bronze Age activity is reflected by a scatter of finds, some of high status, within the study area. (Bowen & Gresham 1967, 121-129). Most do not have exact findspots so their context is lost. The most spectacular is a gold torque (PRN 2896) dug up in a garden somewhere near Harlech Castle. It is now in the National Museum of Wales. Two palstaves (PRN 2908) from a group found in 1851 'near Harlech' are in the British Museum. One in an untrimmed casting and could therefore have been locally manufactured. A Bronze Age rapier in the Ashmolean Museum, Oxford was also found in the Harlech area. Of more relevance to the present project is a record of fragments of a Bronze Age cinerary urn (PRN 4783) found at Pensarn (OS NAR card SH52 NE17) about 1/3 mile east of the railway station.

4.2.2 Iron Age / Romano-British

The high level of survival of Iron Age settlement patterns on the Ardudwy Uplands is one of the defining characteristics of the landscape of Outstanding Historic Interest. An extensive system of huts, enclosures and fields stands at Muriau Gwyddelod (PRN 1054-56). The system includes many Iron Age features along with signs of medieval settlement. Further settlement to the west of this (PRN 1051) at Groes Las is less well preserved but also appears to be Iron Age. Two circular enclosures, one to the south of Harlech (PRN 2903)

and one at Llanfair (PRN 1164) are probably the remains of Romano-British homesteads. A very denuded hut group and faint remnants of terracing (PRN 1063) are all that survive of a Romano-British homestead about 100m to the west of the pipeline just to the south of Llanfair (Bowen and Gresham, 195). The field containing the hut group is visible on RAF aerial photographs from 1951 (540/464/4031 and 4032) as unimproved pasture containing poorly defined features. Nothing was however visible in the surrounding fields. The OS recorded that much of the system of terraces is overlaid by modern field walls and only fragments are clearly visible (NAR card SH52 NE 11 1972).

There is no evidence of Roman occupation along the Ardudwy coastal plain. The Roman road between Tomen-y-Mur and Pennal (Margary 1967, *Roman Roads in Britain*, 354-5) takes an inland route about 8 miles to the east.

4.2.3. Early Medieval

There are two early Christian inscribed stones built into the fabric of Llandanwg old church, one reading IN(G?)ENU/IARRI (/HI)C IA(CIT) and the other EQUESTRI(S) NOMIE (Nash Williams 1950, *Early Christian Monuments of Wales* 278-9). The origin of the stones is open to debate. The RCAHM *Inventory of the county of Merioneth* (1921, 61-63) speculates that the 'Hic Iacit' stone originated in Beddau gwyr Ardudwy and was reported as missing from Ffestiniog church in 1695 by Edward Lhuyd. No firm conclusions were drawn however.

4.2.4 Medieval and sub-medieval

Three churches in the study area have medieval origins. A church was certainly present in Llanfair in 1188, when visited by Gerald of Wales and Archbishop Baldwin. In the 15th century, a new chancel was built onto an existing church and parts of those structures have survived the restoration of the church in the 19th century (Davidson 2001 *Parish Churches* 353). Llanbedr parish church is thought to have been founded in the 13th century and retains a few features of 15th or 16th century date although most of the building dates from the restoration in 1883 (ibid. 342). An early foundation for Llandanwg church is suggested by its original circular cemetery that is now buried by sand. The present church appears to be of 13th century date with 14th and 15th century extensions. A cross slab in the west wall probably dates from the 9th to 11th century (ibid. 343-4).

Two farmhouses Argoed (PRN 4786) and Llanfair Isaf (PRN 4787) retain 16th and 17th century elements. Smith (1988, *Houses of the Welsh Countryside* 166-168) classifies these as sub-medieval houses built to a pattern using 'the unit system' where ranges of rooms are duplicated but not directly linked as in cross-winged houses. At Argoed the two units of the house are linked by a vestibule but at Llanfair Isaf the units are built corner to corner with no direct link. This pattern of construction suggests that the units may have held independent households or perhaps provided separate guest accommodation. RCAHM also notes that buildings at both houses were thought to have housed tanneries (RCAHM CARN ref 41221 and NPRN 12398)

4.2.5 Early-Modern/Modern

The Llandanwg and Llanfair tithe maps of 1839/40 show a pattern of small fields, that remain largely unchanged to the present day apart from a certain amount of urban expansion around Harlech. The tithe schedules record a mixture of pasture and arable land along with marsh allotments to the north of Llanbedr. The main landowner was the Hon E. M. L. Mostyn (later to be the second Lord Mostyn). During the latter part of the 19th century, new houses were built to accommodate several well to do English families (Lloyd 1986, *The Book of Harlech* 81) and Harlech became a popular summer destination. The newcomers patronised local music festivals and some sponsored the creation of the Harlech Golf Links.

Access to the Ardro at Pensarn existed by 1839/40 (it is marked on the first edition 1" OS map), where certainly by the end of the century a wharf was built, and a kiln burnt lime imported by sea, and from where slate from Llanfair quarry and timber were exported (Richards 1991, 150). In the 1860's the Aberystwyth and Welch Coast Railway made its way up the coast from Machynlleth to Pwllheli, which, in its subsequent guises as the Cambrian Railways, the Great Western and B.R. has maintained a precarious existence ever since (Baughan 1980, 157-61). The wharf at Pensarn had access to both road and rail.

Though a road existed up the west coast of Wales in medieval times (it was the route travelled by Giraldus Cambrensis), road improvements did not start until the end of the 18th century. The Harlech to Barmouth road

was probably turnpiked following the Act of 1796, which divided Merioneth into six roads; in 1850 each of the individual road districts was converted into a separate Trust. A date for Sarn Hir, (the name given to the elevated section of the A496 that passes the proposed Treatment Works) has not been found, but it was certainly constructed by the mid-19th century, and subsequently gave its name to Pensarn.

4.3 Impact and mitigation

No sites of archaeological interest were noted within the proposed Treatment Works site. The nearest sites include the former wharf at Pensarn, the Cambrian Railway, and the embanked section of the A497 called Sarn Hir. The development will not have any impact upon any of the sites. The potential for the discovery of new sites within the flood plain is low.

The impact upon the historic landscape will be minor. Only a very small part of the floodplain, a part that contains no known sites of archaeological interest, will be affected.

There is slight potential for the recovery of environmental information from site, which may give an improved understanding of the periods of sand incursions, changing water levels and drainage.

5 REFERENCES AND OTHER SOURCES

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Lloyd 1986, *The Book of Harlech*

Documentary sources

GAT Sites and Monuments Record

- John Speed Map of Merioneth 1610.
OS 1:2500 Merionethshire sheets XVIII16, XXV4 and XXV8 1901
OS 1:10000 SH53SE and SH57NE 1976
OS NAR card SH52 NE17 1972
OS NAR card SH52 NE11 1972

RCAHM Wales Aberystwyth

Aerial Photographs

- RAF 540/464/4031 20 April 1951
RAF 540/464/4032 20 April 1951
RAF 540/464/4004 20 April 1951
RAF 540/464/4005 20 April 1951

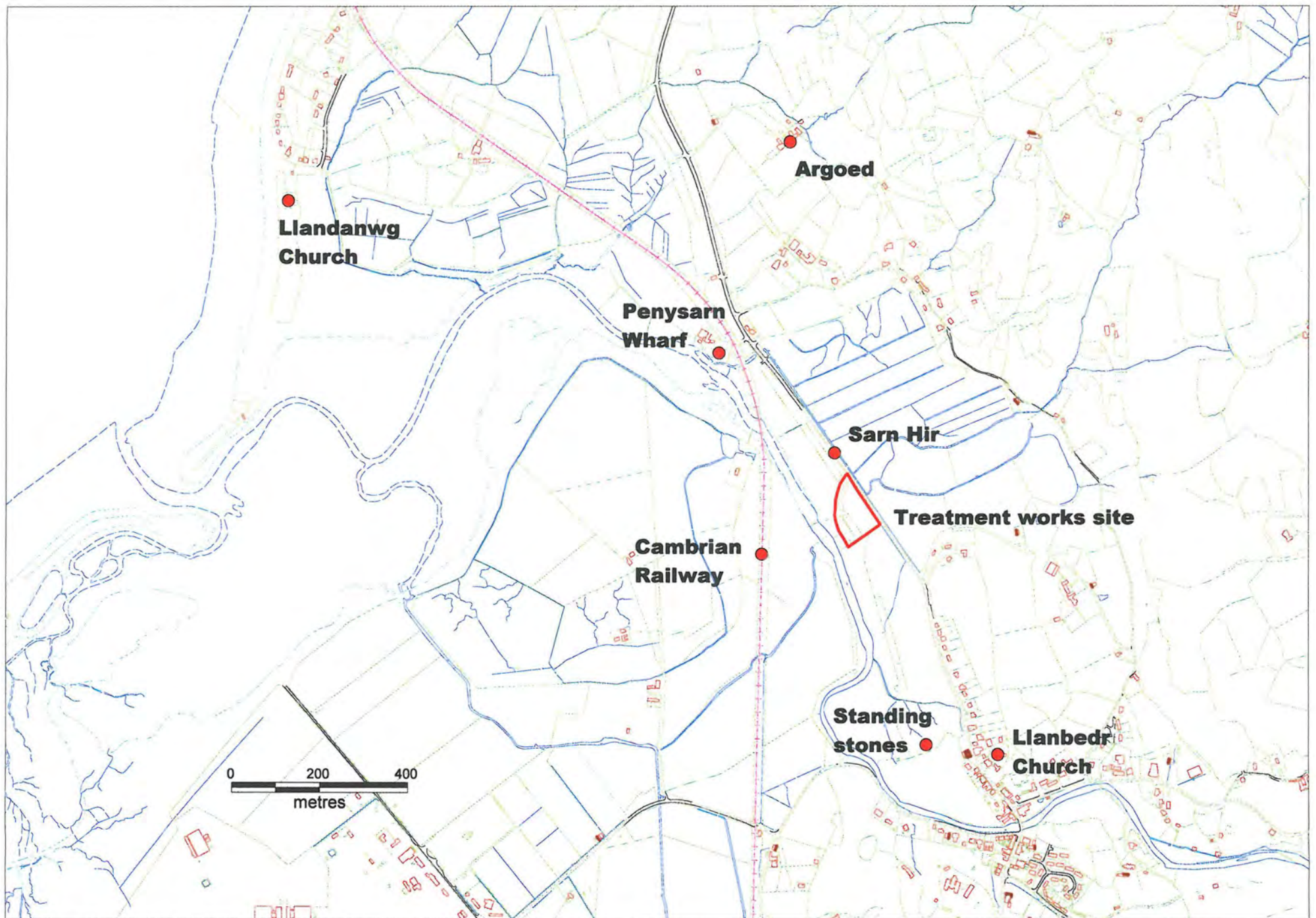


Fig 1. Location of proposed Treatment Works and principal archaeological sites



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