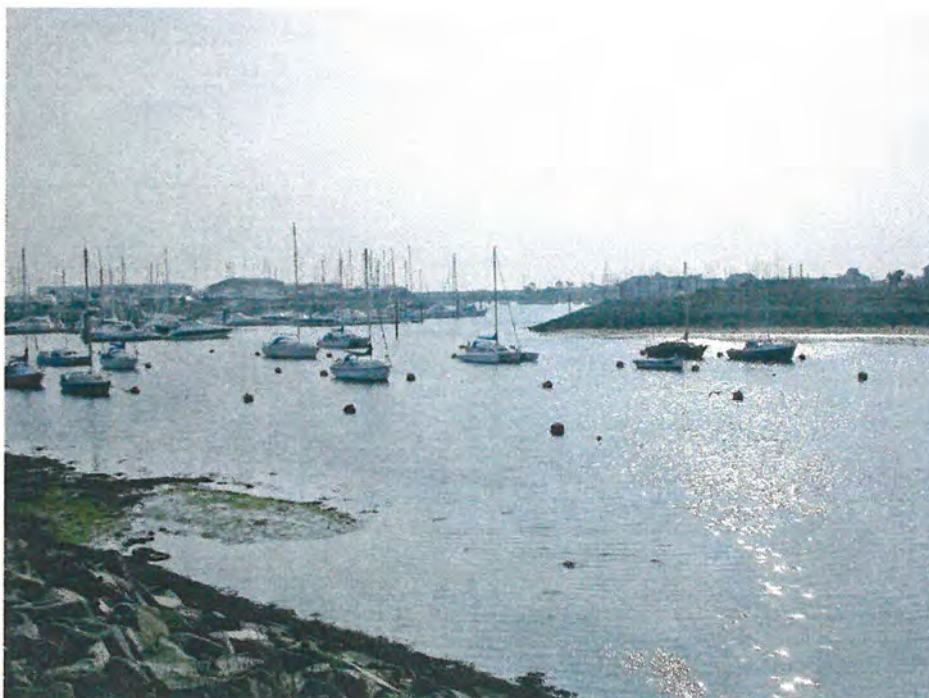

Pwllheli Harbour development



GAT Project G1830

Report no. 527

March 2004

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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Pwllheli Harbour Development

Report No. 527

Prepared for Cascade Consulting

by

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**Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
March 2004**

PWLLHELI MARINA EXTENSION, PWLLHELI, GWYNEDD

ARCHAEOLOGICAL ASSESSMENT (G1830)

Summary

An archaeological assessment has been undertaken in advance of expansion of the marina at Pwllheli harbour. The development area has, from at least the 18th century, formed part of a tidal pool, that was incorporated into a harbour during the construction of the embankment across the pool in the early 19th century, and further developed in the early 20th century when the harbour was modified to take into account development on the north side. At this time much of the harbour was dredged, and an island constructed in the centre. Work in the early 1990's, during construction of the existing marina, and again in 1995, involved dredging of the proposed development area, and alterations to the existing island, including the construction of a causeway linking the island to the embankment. Because of the previous dredging it is considered that the impact upon the archaeological resource will be negligible. No further archaeological work is considered necessary.

PRN 7247

1. INTRODUCTION

It is proposed to extend the existing marina that lies within the harbour at Pwllheli. These works will include dredging, the construction of a launching slip, car parks, roads and land reclamation. An archaeological assessment has been requested to assess the level of impact of the proposals upon any archaeological remains that may exist upon the site. The assessment is to form part of a wider Environmental Assessment.

Gwynedd Archaeological Trust (Contracts Section) has been asked by Cascade Consulting to undertake the archaeological assessment of the proposed site. A detailed brief has been prepared for this work, by Gwynedd Archaeological Planning Service (D280). The assessment has been conducted to a level specified in *Standard and Guidance for Archaeological Desk-based Assessment* (Institute of Field Archaeologists, 1994, rev. 1999).

2. ASSESSMENT BRIEF

The basic requirement is for a desk-top survey and field search in order to assess the impact of the proposals on the archaeological and heritage features within proposed development area and close enough to it to be affected. The importance and condition of known archaeological remains is to be assessed and areas of archaeological potential and new sites identified. Measures to mitigate the effects of the proposals on the archaeological resource are to be suggested.

Gwynedd Archaeological Trust's proposals for fulfilling these requirements are as follows:

- a) to identify and record the cultural heritage of the area to be affected by the proposals;
- b) to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape); and
- c) to recommend ways in which damage to the cultural heritage can be avoided or minimised.

It is possible that certain features will not be capable of being assessed by a desktop and field visit, and that subsequent field evaluation may be necessary in the form of trial excavation or geophysical survey. This report will contain recommendations for any field evaluation required.

3. METHODS AND TECHNIQUES

3.1 Desk-top Study

This took the form of consultation of maps, computer records, written records and reference works, which make up the Sites and Monuments Record at Gwynedd Archaeological Trust. Records (including early Ordnance Survey maps, tithe maps and schedules, and reference works - see bibliography) were also consulted

in the library and the archives of the University of Wales, Bangor, and the County archives at Caernarfon, where the Ordnance Survey maps, John Wood map and tithe maps were of greatest use.

A considerable amount of research has been undertaken concerning the history of Pwllheli, and hence the secondary source material is very good. Numerous works by D G Hughes¹ have elucidated many aspects of Pwllheli's history. Lewis Lloyd has examined the maritime history, Jones Pierce the medieval history, and J F Andrews has looked at the involvement of Solomon Andrews with the town.² Other relevant secondary works include the RCAHMW Inventory, and Ian Soulsby's review of medieval towns in Wales.³ Cadw's Listed Building survey of Pwllheli was undertaken in 1986.⁴ Account has also been taken of the guidelines specified in the English Heritage Guidance Note on Marine Aggregate Dredging and the Historic Environment.⁵

3.2 Field Search

This was undertaken on 11 March, 2004, when the limits of the proposed development were walked.

3.3 Report

All available information was collated, and sites were then assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site and the level of response likely to be required, for ease of reference; descriptions of the sites and specific recommendations for further evaluation or mitigatory measures, as appropriate, are given in the relevant sections of this report.

In some cases, further investigation may result in sites being moved into different categories. The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling; these are set out in Annex 3 to Welsh Office Circular 60/96 *Planning and the Historic Environment: Archaeology*.

Category A - Sites of national importance.

Scheduled Ancient Monuments, Listed Buildings and sites of schedulable or listable quality, i.e. those which would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites which 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.

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

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

¹ The majority of his work has been amalgamated into Hughes 1991 *Pwllheli: an old Welsh town and its history*.

² Lloyd 1991; Pierce 1940-44; Andrews 1976 and 1995.

³ RCAHMW 1964; Soulsby 1983.

⁴ Cadw 1986 *Listed Buildings: Pwllheli*

⁵ Wessex Archaeology, 2003 *Marine Aggregate Dredging and the Historic Environment*. BMAPA and English Heritage.

Category E - Sites needing further investigation.

Sites whose importance 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 be no sites remaining in this category.

3.4 Impact

The following terms define the levels of direct impact used within this report upon the archaeological resource, and upon each of the archaeological sites:

None: There will be no impact upon the feature.

Negligible: This is used where the impact is marginal, and would not by the nature of the site cause irreversible damage to the remainder of the feature, for example a linear feature such as a wall, or a large silt deposit which is only being marginally disturbed.

Moderate: This is used when impact would affect less than half the feature concerned, and the remainder would retain its intrinsic archaeological value.

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

3.5 Existing statutory protection

The town of Pwllheli is within a Conservation Area, though this does not include the harbour or Morfa'r Garreg. The area is not within an AONB or Heritage Coast designation.

Pwllheli lies within the Llyn and Bardsey Island Landscape of Historic Interest (HLW Gw 8).⁶ Though not a statutory designation, it is to be taken into consideration for planning applications.

Scheduled Ancient Monuments and Listed Buildings

There are no scheduled Ancient Monuments within or adjacent to the area of development.

Though Pwllheli has a high number of listed buildings, only two lie near to the proposed development: the War Memorial sited on the Embankment (43/A/15(2) Listed Grade II), and the Railway Station on the north edge of the harbour (43/A/124(3) Listed Grade II). The impact upon both will be visual indirect impact.⁷

⁶ Cadw and CCW, 1998 *Register of Landscapes of Outstanding Historic Interest in Wales*

⁷ Cadw, 1986 *Pwllheli: Listed Building Description*.

4. ARCHAEOLOGICAL FINDINGS AND RECOMMENDATIONS

4.1 Introduction

The importance of Pwllheli as a medieval town and subsequent ship building centre and port owed much to its natural harbour facilities. The settlement developed at the confluence of three rivers, the Afon Rhyd hir, Afon Penrhos and Afon Erch, where a tidal pool, sheltered by two opposing spits or bars of sand, formed a safe harbourage. The development of the coast edge is not fully understood – the rivers have been re-aligned over the years, and sand accumulation, much of it almost certainly in medieval times, will have altered the coastal landscape. In pre-medieval times the rivers would have had separate estuaries along the coast. The map of the harbour by Lewis Morris in 1748 (fig 2) shows the landscape much as it would have been from late medieval times to 1800, with sand hills to the south and east, and a confluence of rivers at Pwllheli. The rock of Carreg yr Imbill, at the seaward end of the southern bar, was, before most of it was quarried away, a fixed landmark to the channel that led into the harbour.

4.2 Prehistoric archaeology

Though no prehistoric or Roman settlements are known from Pwllheli, it is very likely they did exist, but have been destroyed by subsequent development. Finds from Carreg yr Imbill include a Bronze Age adze and Iron Age spindle whorl.⁸ Three quern stones and a mortar of late prehistoric or Romano-British date were found in the vicinity of Pwllheli, though the exact findspot is not known.⁹

4.3 Medieval archaeology

Under the later Welsh princes in the 12th century, Pwllheli was to become the administrative centre of the commote of Cafflogion, which occupied the southern Llŷn peninsula. Like Nefyn on the north side of the Llŷn, it was to develop into a town and port, and eventually be granted Borough status. The location of the original medieval centre remains uncertain. The parish church of Deneio lies to the north of the town (shown on fig. 5), and to the north-east again lies the farm of Henllys (old court), suggesting the first (pre-12th century) administrative centre lay outside the limits of the present town.¹⁰ Evidence for the earliest development within the existing borough may be sought amongst the place-names of Gadlys (fortified enclosure) and Penmount (artificial mound, possibly referring to a motte). The former lay at the opening of Penlan Street, and until the early 19th century a 'substantial old building called Yr Hendre Gadredd' lay in the vicinity.¹¹ The remainder of the town appears to have developed along the present high street and from there down Stryd Penlan, which led down to the old quay, and Stryd Moch, which lay below and west of Stryd Penlan (see fig. 3).¹² Edward I stayed at the court here in 1284, though full borough status was not granted until 1355.¹³

4.3 Harbour developments

In 1566 Pwllheli harbour was described as 'Pwllely, a port or haven having a town or habitacion of the same name apon hit wherein are 36 householdes or cotages'.¹⁴ Trade was conducted in agricultural produce, malted barley and coal, and by 1603 Pwllheli had contacts with ports all round the Irish Sea, and two vessels of its own.¹⁵ Fishing also played an important role, and Lewis Morris records 'Beds of Oysters, and plenty of other Fish, and some years they have a good Herring fishery here; but the chief commodities of the place are butter and cheese'.¹⁶ Piracy and smuggling were lucrative trades, encouraged by local landowners, and Pwllheli was often deeply involved with both.¹⁷

⁸ PRN 2212 and 2213. For identification and description of the adze see S. Green, 1981 'Two perforated adzes from Gwynedd' *BBCS*, XXIX, 342.

⁹ PRN 2259 see also RCAHMW, 1964 *Inventory of Ancient Monuments of Caernarfonshire* III, xl.

¹⁰ PRN 6926 and PRN 63 for the church and Henllys. See Johnstone 2000 for a discussion of the location of the llys sites.

¹¹ Johnson 2000; Hughes 1991, 4.

¹² Soulsby 1983, 221-2; Jones 1941, 129.

¹³ See Lewis 1912, 289-91 for the full text of the grant.

¹⁴ Lewis 1927, Appendix I.

¹⁵ Lloyd 1991, 12-13; see also Lewis 1927 *Welsh Port Books* for details of trade in the 16th and 17th centuries.

¹⁶ Lewis Morris 1748 *Plans in St George's Channel*

¹⁷ Pierce 1944.

Prior to the 18th century the harbour was a tidal pool on the east side of the town that would later become silted up and infilled. In the early 18th century the harbour was moved further east, but shortly after moved again, this time to the west on the south edge of town at the end of Penlan Street, where a quay was built (shown on fig 3). In 1808, because the Penlan quay was too exposed, a move was made back to the east side of town where a new quay was built (shown as 'The port' on fig.3).¹⁸

In 1811 an Enclosure Act was passed for the common lands of the parish.¹⁹ These included Morfa Mawr, which encompassed the southern bar to Carreg yr Imbill. This area was not easy to access, and in order to increase its value and gain additional land a reclamation scheme was proposed. The scheme finally decided upon involved the construction of the existing embankment from Penlan street south to Bwlch y Tywod on the Carreg yr Imbill bar. Sluice gates to prevent tidal water getting beyond the embankment, but allow the river water to flow through, were constructed. Another smaller embankment was built on the north-east side of the harbour across the mouth of the Erch estuary, again with sluice gates. The quay on the east side of the town remained the principal one (see fig 3, Wood's map of 1834). The quay at Penlan (also shown on fig 3), which had become redundant following the construction of the embankment, was demolished in the 1840's to make way for the Mitre Hotel.²⁰

The construction of the harbour at Portmadog during the early 19th century as part of William Madocks inspiring scheme provided severe competition for Pwllheli, and though the former was eventually to become the more important, the new inner harbour at Pwllheli created by the construction of the embankment, was busy throughout the middle decades of the 19th century, both for trade and for ship building and repairing. The last ship was built at Pwllheli in 1878.²¹

In 1867 the Cambrian Railway was opened to a station constructed a short distance outside Pwllheli. Its arrival helped fuel ideas to develop the tourist potential of Pwllheli. Of particular importance in this respect was Solomon Andrews, a Cardiff businessman who visited the town in 1893, after seeing land advertised for sale. He bought the land west of the embankment, much of it reclaimed land, which was to form the basis of his development at West End, starting with the construction of the West End Hotel.²² A tramway was also developed that ran along the embankment to West End.²³ Eventually in 1909 the Cambrian Railway was extended into the town and a new station built. This completed a whole series of changes to the harbour that resulted in the form it would remain until the end of the 20th century (see fig 4).

An embankment was built along the north side of the harbour from the existing railway station to Pen y Cob. This had the effect of reclaiming 18 acres of land, and facilitated the extension of the railway into the town. A new embankment was also constructed on the east side of the harbour at Glan y Don. The inner harbour was dredged to provide a depth of 11ft at High Water, and the dredged material was used to create an 8 acre island in the harbour. A weir and tidal gates were built across the entrance to the harbour, and the outer harbour between the gates and Carreg yr Imbill was dredged.²⁴

The new harbour did not prove a great financial success, and was never fully utilised. In the late 1980's a marina was constructed on the west side of the harbour following dredging. The dredged material was used to build an embankment from the island within the harbour to the 1809 embankment, thus linking the two.

4.4 The study area

The area of development lies within the inner harbour on the east side of the 1813 embankment and south of the island and new embankment as far as the bar (South Beach). A part of the harbour is to be dredged, and the material used to increase the size of the island to the north. There is no archaeology within the proposed development area. It was tidal estuary until the construction of the 1813 embankment (see Lewis Morris map fig 2), after which it formed part of the main harbour, though map evidence would suggest it was never used,

¹⁸ Hughes 1991, 1-20.

¹⁹ Chapman 1992, 41. The award was initially made in 1812 and finally signed in 1869.

²⁰ See Hughes 1991, 12-24 for a detailed description of the enclosure; Dodd 1971, 53-88 for the general background.

²¹ See Lloyd 1991 for maritime details, and the rise and decline in ship building.

²² See Andrews 1976 for a detailed account of Solomon Andrews undertakings.

²³ Andrews 1995 contains details of the tramway and its development.

²⁴ Hughes 1991, 29-35.

and perhaps never dredged to the same depth as the northern half. The 1896 OS map shows it as sand (fig 3), the John Wood map of 1824 does not include this area (which would tend to signify little was happening there). In the early 20th century a new sea wall was built from the embankment diagonally to what was then Morfa Cottage (see fig. 4 – the area was developed in post Second World War years into Bron y De). In 1995 the area was dredged to a depth of approximately 2m, and the material deposited against the embankment, infilling the corner between the original island and Bron y De at Morfa Garreg (on fig. 1 the area of land immediately west of the proposed development).

The island created during the 1907-11 works is largely featureless, and contains no features of archaeological interest.

The following sites lie close to the development:

Embankment Category: A Impact: None

SH3755 3476A

First constructed in 1813, and widened to take the tramway in the early 20th century, the embankment forms the lynchpin in understanding the development and existing layout of the town, and thus is considered of national importance as a part of a classic reclamation and improvement scheme undertaken in the early years of the 19th century, and following that of Portmadog/Tremadog where William Maddocks was transforming the landscape of Traeth Mawr.

War Memorial Category: A (Listed Building Grade II) Impact: None

SH3755 3479

The war memorial, erected in 1924, is on the east side of the embankment, overlooking the inner harbour. It consists of a Bronze figure of a soldier, with plaques to the two World Wars and the Falklands War of 1982.

5. IMPACT AND RECOMMENDATIONS

The proposal is to remove 3.5m depth of silts from the area shown on Fig. 1, and to re-deposit it on the north side of the island. The area has already been dredged to a depth of some 2m (in 1995) which has built up again. The impact upon older silts will therefore be limited to the lower 1.5m. It has not been possible to discover if the area was dredged during the 1907-9 works, though the likelihood is that only the area north of the island (used as the main harbour) was dredged, and not the proposed development area. Nonetheless, the rapidity with which silts accumulate makes it very likely that the sand and mud within the development area is largely of 20th century deposition. A series of eleven boreholes have been dug as part of the ground investigation.²⁵ The majority of these record top organic silts, followed by a mixture of sand and silts. BH11 contained a grey organic sandy silt/clay between 3.5 and 6.5m in depth, but otherwise there were few organic levels, and no peaty levels were noted.

The direct impact upon the archaeological resource will be, according to present information, negligible. The indirect impact upon the archaeology will be visual, and also classified as negligible.

No recommendations are made for further evaluation or mitigation.

²⁵ Lewin, Fryer and Partners, 2004 'Factual report on ground investigation for Yr Hafan Extension of Pwllheli Harbour', *Report No. 30842*.

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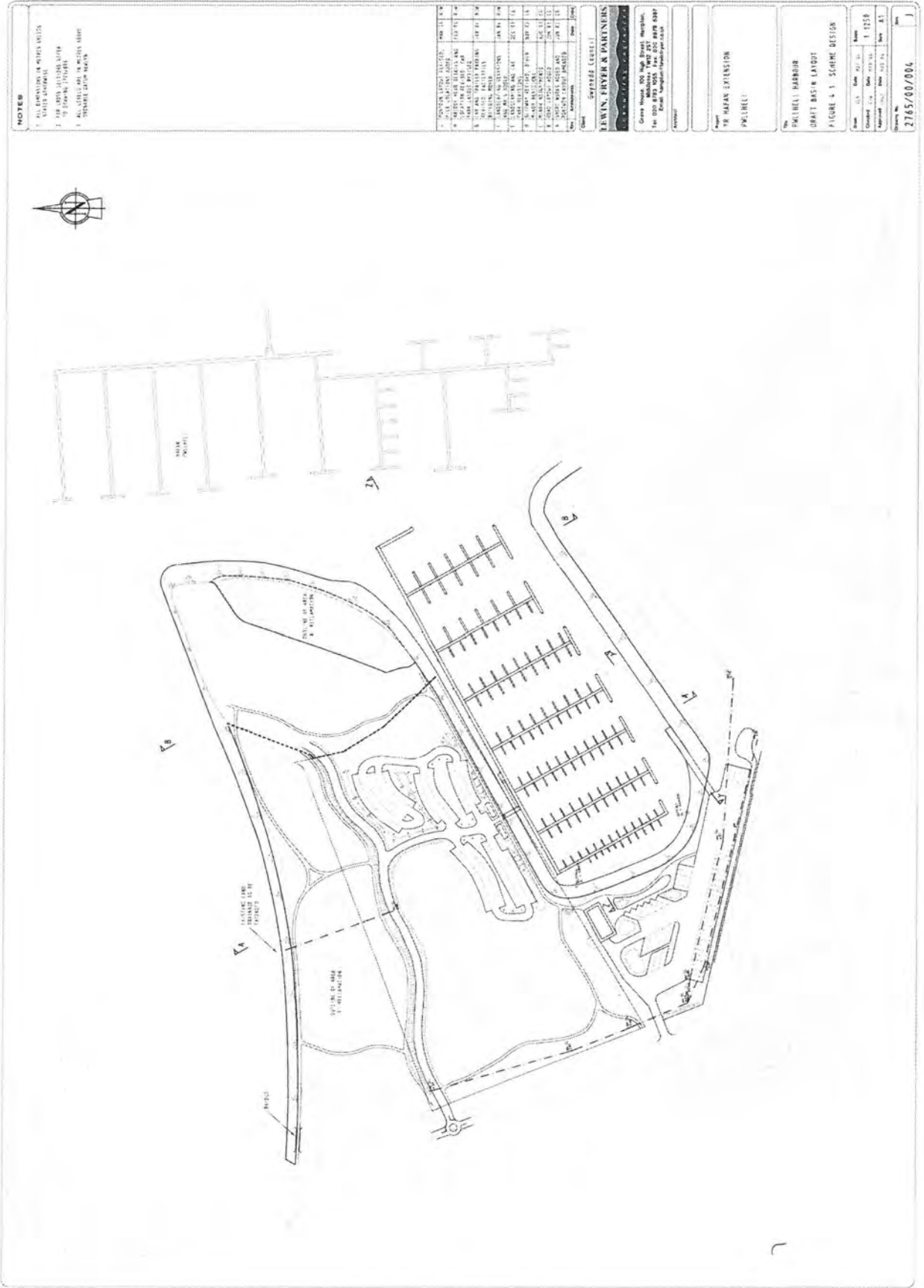


Fig 1 Development proposals

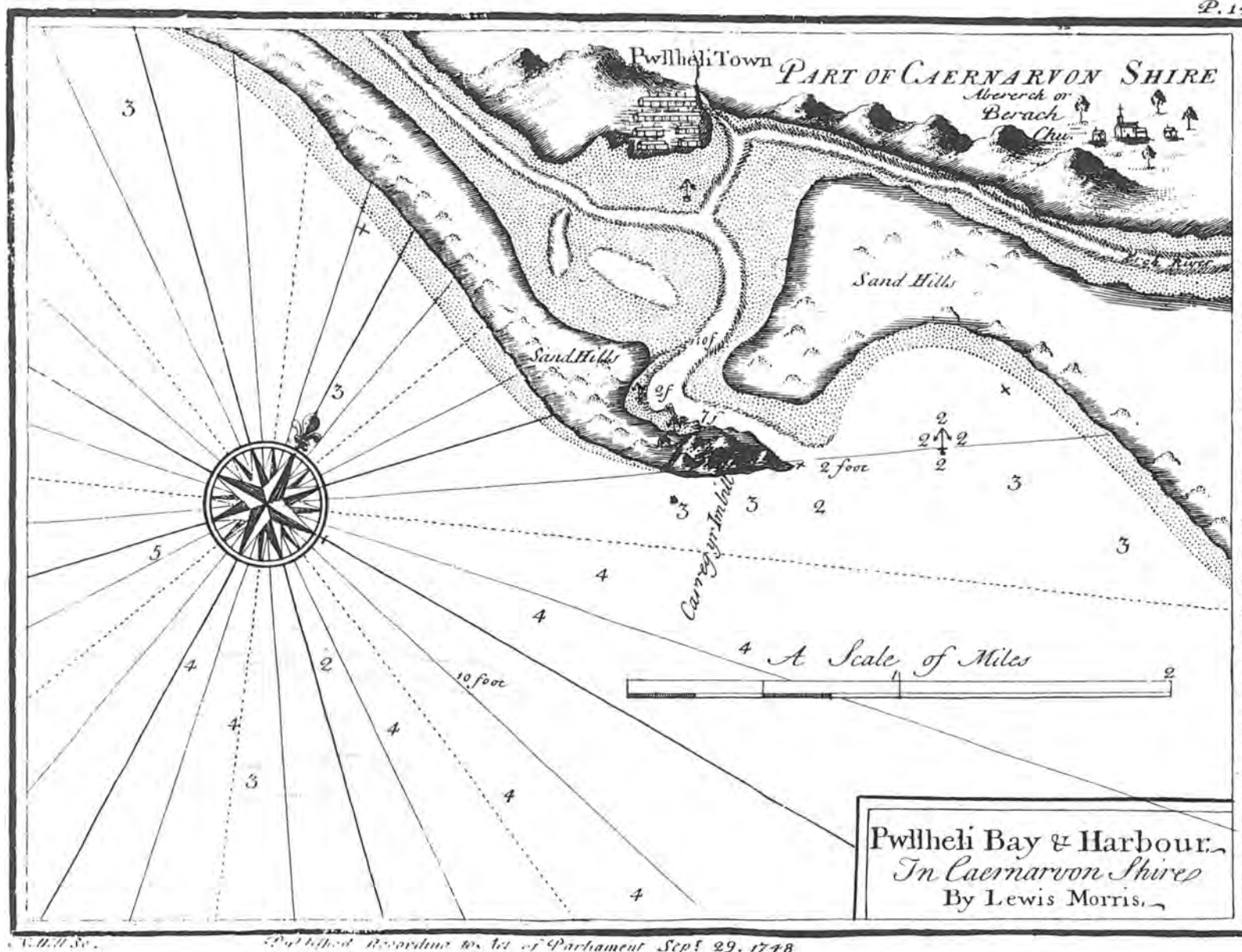


Fig 2 Lewis Morris Map of 1748

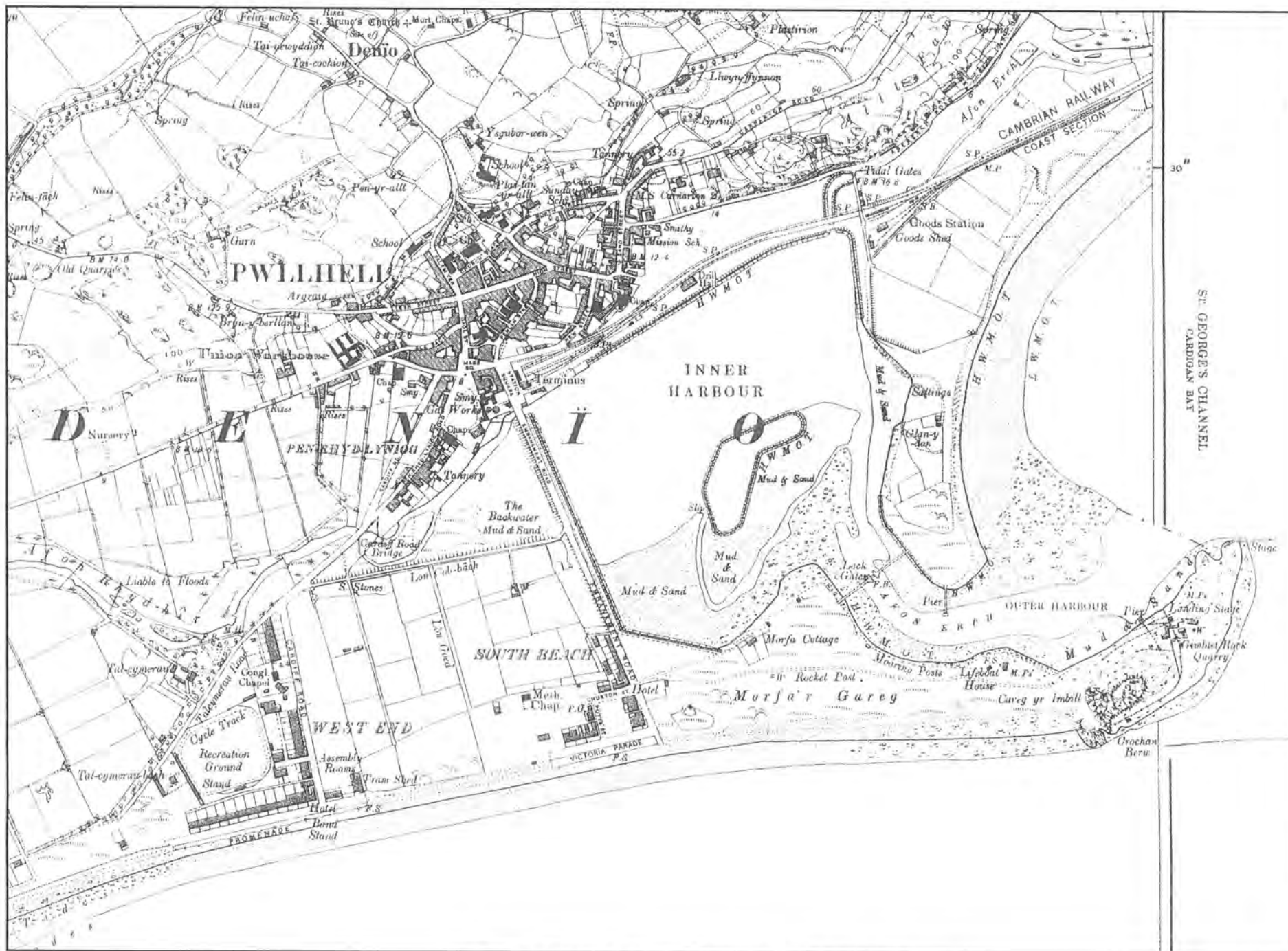


Fig 5 OS 1:10560 Sheets XL NE and XL SE dated 1920



Plate 1 The development area lies to the west of the existing marina, visible beyond the moored boats



Plate 2 The development area: looking west with the island to the right



Plate 3 The development area: looking east towards the existing marina



Plate 4 The north side of the harbour showing the area to be reclaimed by dumping

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