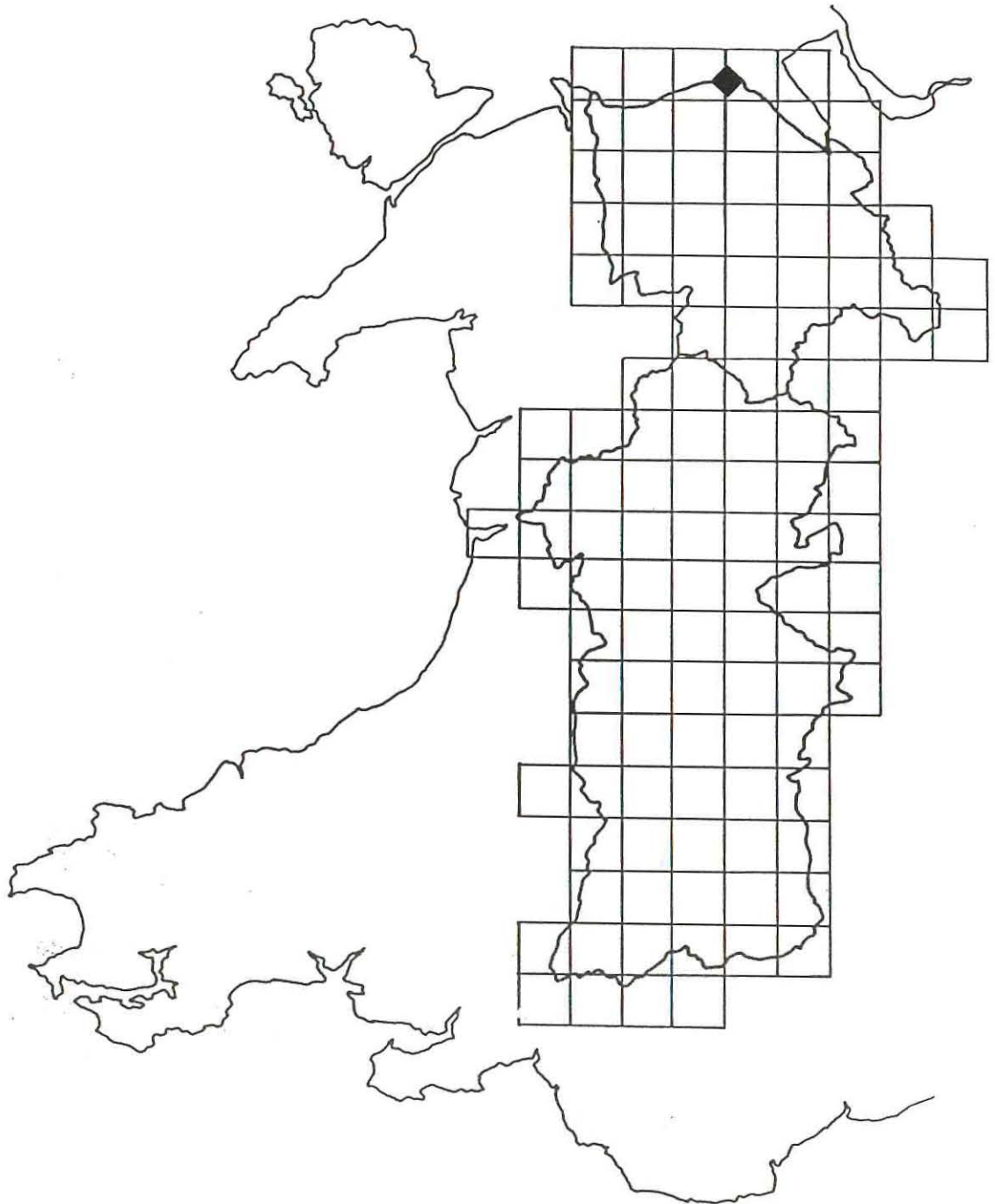


THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

*Proposed extension to Kwik Save supermarket,  
Nant Hall Road, Prestatyn, Clwyd*  
ARCHAEOLOGICAL EVALUATION



**CPAT Report No 61**

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**ARCHAEOLOGICAL EVALUATION**

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April 1993

Report prepared for Kwik Save Group plc

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## 1 INTRODUCTION

- 1.1 The Clwyd-Powys Archaeological Trust was commissioned in April 1993 by Kwik Save Group plc to undertake an assessment of land affected by the extension of the existing Kwik Save building and a new access road off Nant Hall Road, Prestatyn. The assessment was required as part of the client's planning application to Rhuddlan Borough Council (ref. 2/PRE/0442/92/P), as specified in the brief prepared by Clwyd Archaeology Service, Clwyd County Council.
- 1.2 The assessment consisted of a desktop evaluation followed by fieldwork which was carried out between the 25th and 28th of April 1993 by a team of two, and this report prepared immediately afterwards.

## 2 BACKGROUND

- 2.1 Prestatyn lies on the North Wales coastal plain to the east of the Vale of Clwyd, with a geology characterised by boulder clay and glacial sands and gravel overlying Carboniferous limestone. Localised deposits of alluvium, peat and tufa also occur. The area is rich in archaeological remains. Prehistoric remains include a mesolithic site at Bryn Newydd (Smith 1927) and a 'bog body' of presumed prehistoric date found in peat during pipelaying operations in Prestatyn High Street in 1924 (CAR 2222). A scatter of flint and chert artefacts of mesolithic and neolithic date, as well as a number of artefacts of Roman date was also recovered from land to the west of Bodnant Avenue in the 1930s on land which has recently been the subject of further investigation (see below).
- 2.2 The Kwik Save site lies on a peat deposit which runs in a band from east to west, parallel to the present coastline. This peat, and associated deposits has recently been the subject of investigation by the Clwyd-Powys Archaeological Trust on the Land Authority for Wales (LAFW) site between Nant Hall Road and Bodnant Avenue immediately to the east of the Kwik Save site during 1992-93 (Fig 1). The peat and underlying blue-grey clay have been recognised as former coastline deposits relating to coastal changes during the period since the last glaciation. Around the periphery of these wetland deposits evidence of mesolithic and neolithic activity existed in the form of shell middens.
- 2.3 The recent investigations consisted of a test pit through the peat and clay deposits onto the underlying glacial sand and gravels, to recover material for environmental study. Four shell middens were also excavated, and hand-augering was carried out across the whole site to record the extent of the peat and clay deposits, and to recognise the presence and distribution of further shell middens.
- 2.4 Studies into this material is still continuing, although interim results have already been produced. Radiocarbon dating has shown that the clay deposits were laid down before 4900±80 BP (years before present)(CAR-1427), when the peat began to develop. The preservation of pollens and macro-plant remains is generally very good in the wetland deposits, and analysis of the pollen profile from these deposits shows a vegetational development from salt marsh communities through reed-swamp and alder carr communities to post woodland vegetation (Bell *et al* 1993, 7-10). Possible human influence is indicated by the decline in arboreal pollen, and the increase in herbaceous pollen at 4230±80 BP (CAR-1425). Calcareous tufa deposits are also present in parts of the LAFW site which provide environments with a relatively low pH in which both marine and terrestrial molluscs are preserved.
- 2.3 The excavations of the middens show that two distinct types are present. Two middens composed predominantly of cockles were found within the peat; radiocarbon dates of 4700±70 BP (CAR-1356) and 4890±70 BP (CAR-1355) demonstrate that these belong to the neolithic period. Two further middens, composed predominantly of mussels, were found on dryland deposits adjacent to the peat. These middens have been dated to 5270±80 BP (CAR-1423) and 5530±80 BP (CAR-1420). The two latter middens were associated with a lithic assemblage of mesolithic character and animal bone, which will provide important evidence of how man exploited the coastal resources at this period.
- 2.4 Hand augering within the LAFW site has shown that the natural glacial sand deposits slope gradually from 7.50m OD at the south-east corner of the site to 0.75m OD at the north-east corner. Above this lies blue-grey estuarine or marine clays up to a height of approximately 2.85m OD, and peat to between 3.50 and 4.10m OD. These deposits are confined to the north-east part of the site. The southern part of the site is characterised by dryland deposits with gleyed-clay hillwash overlying the glacial sand and gravel, below loam ploughsoil, which towards the southern boundaries of the site has cut away the hillwash. The

distribution of shell middens appears to be generally confined to the boundary of the dryland and wetland deposits. The scatter of flint and chert artefacts found during the 1930s seems to have come from the dryland area, and seems likely to represent permanent or seasonal settlement activity in this area.

- 2.5 Environmental and archaeological evidence indicates that significant changes were taking place to the coastal environment during the early prehistoric period. The archaeological evidence is potentially important particularly in view of the rare combination of cultural material and well-preserved environmental evidence in a coastal environment. The information will be particularly important to the question of the seasonality and sedentism during the later mesolithic and early neolithic periods.
- 2.6 The deposits recorded on the LAFW site are likely to run into the Kwik Save carpark area. This is likely to include dryland deposits, the zone at the dryland/wetland interface where shell middens have been identified as well as deeper peat deposits and marine or estuarine deposits. It was therefore felt that it would be important to extend the area augering policy to include any areas affected by the proposed development for the purpose of defining the extent and depths of deposits and testing for the presence of shell midden sites.

### **3 EVALUATION METHODOLOGY**

- 3.1 The augering was carried out at varying intervals across the area affected by the development, depending on the nature of the underlying sediments (Fig 2). The transect along the proposed access road was spaced at 10m intervals because it crossed the boundary between the dryland and wetland deposits where the middens are more likely to be found. The area affected by the extension to the building was augered at 20m intervals because deep peat and clay deposits were expected, which previous work has shown to be less likely to contain direct evidence of past human activity.
- 3.2 The sediment samples were recovered using a 30mm bit-part gouge hand auger after the overlying tarmac and hardcore had been removed with an electric Kango Hammer powered by a petrol generator. The augering was carried out through the deposits until the underlying glacial sand and gravel was encountered. The sediments were described and recorded by depth from the ground surface, and then related to the Ordnance Datum.
- 3.3 The reliability of this method is to within 10cm when recording the nature and depth of underlying deposits, though is less reliable when trying to identify specific midden deposits or cultural material which due to the spacing of the samples may be missed.

### **4 RESULTS**

- 4.1 A summary of the profiles recorded in each of the auger holes is included in an appendix below.
- 4.2 The augering has shown that the glacial sands and gravels slope from 4.64m OD in the south-eastern corner of the carpark to 1.57m at the north-west. Blue-grey clay overlies this layer up to a depth of approximately 2.85m OD, and first appears in the auger samples at KS 7. The peat first appears in KS 5 overlying the glacial sand, and varies in depth between 1 and 1.5m. Where it overlies the blue-grey clay it is generally 1.3m deep.
- 4.3 The peripheral area which is most likely to contain middens and artefacts lies between augers KS 3 and 4. No artefacts were recovered from the samples, and no midden deposits were identified.

## 5 CONCLUSIONS

- 5.1 The evaluation at Kwik Save has demonstrated that the post-glacial deposits studied at the adjacent LAFW site continue into this area. The sequence of glacial sand below blue-grey clay and peat deposits across the northern half of the site can be directly related to the sequence studied in the test pit at the LAFW site which showed that the peat began to develop after the change from marine conditions at *c* 4900±80BP.
- 5.2 The band where middens and other evidence of human activity occurs also passes through the site, although no evidence was recovered. The possibility does exist that middens do exist in this band and were not recognised during the augering as they have been shown to be normally less than about 8m in diameter and sometimes less than 3m in diameter.

## REFERENCES

Bell, M, Brashay, B, Cameron, N, Caseldine, A, Johnson, S & Norris Hill, J, 1993 *A palaeoenvironmental study of the Nant Hall Road and Melyd Avenue sites, Prestatyn, Clwyd*, Palaeoenvironmental Research Centre, St David's University College, Lampeter

Smith, G, 1927. Prehistoric remains at Bryn Newydd, Prestatyn. *Proceedings of the Llandudno and Colwyn Bay District Field Club* 13, 62-67.

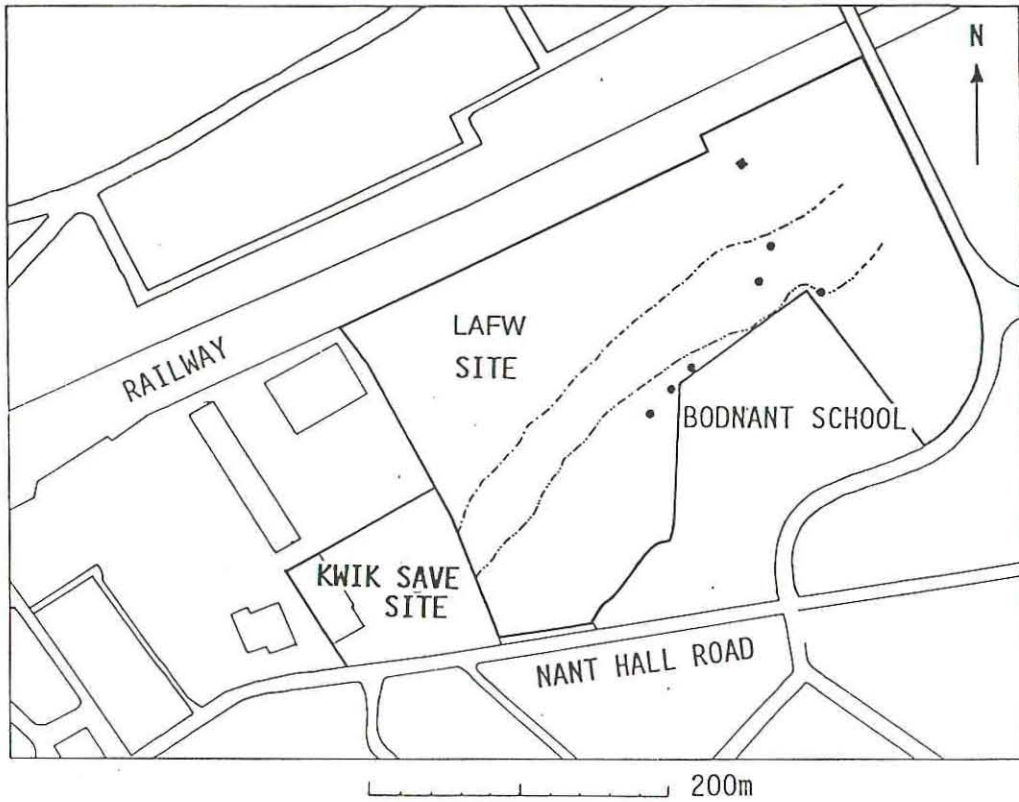


FIG 1 LOCATION OF NANT HALL ROAD AND KWIK SAVE SITES

KEY

- EXTENT OF BLUE-GREY CLAY
- EXTENT OF PEAT
- ENVIRONMENTAL TEST PIT
- KNOWN MIDDENS

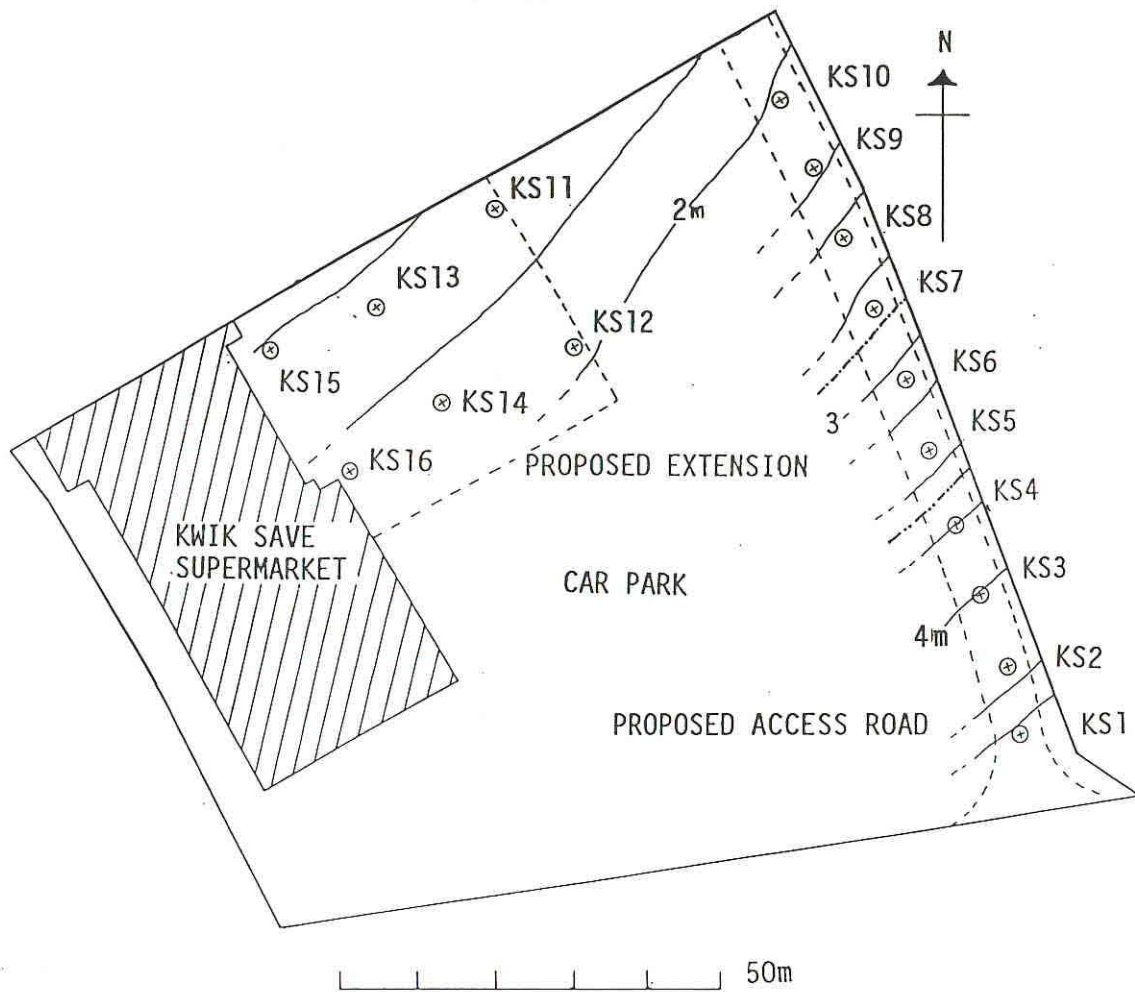


FIG 2 DEVELOPMENT AREA

- CONTOURS ON GLACIAL NATURAL
- - - EXTENT OF BLUE-GREY CLAY
- · - · - EXTENT OF PEAT
- ⊕ POSITION OF AUGER

**APPENDIX: KWIK SAVE SITE PRESTATYN - AUGER HOLE DESCRIPTIONS**

<b>auger hole</b>	<b>surface OD</b>	<b>depth</b>	<b>description</b>
KS 1	5.40m	0-0.25m 0.25-0.71m 0.71-0.76m 0.76-1.00m	hardcore sandy loam mixed loam/sand and gravel yellow/orange sand
KS 2	5.08m	0-0.20m 0.20-0.60m 0.60-0.84m  0.84-1.00m+	hardcore dark grey-brown silty clay loam more humic grey silty clay loam flecks of degraded sandstone + charcoal dark grey sand
KS 3	4.85m	0-0.25m 0.25-0.59m 0.59-0.91m 0.91-1.00m	hardcore dark grey brown silty clay loam dark brown clayey peat grey sand
KS 4	4.65m	0-0.23m 0.23-0.90m 0.90-1.00m	hardcore peaty clay loam grey sand
KS 5	4.61m	0-0.27m 0.27-1.25m 1.25m+	hardcore dark brown clayey peat yellow-grey sand
KS 6	4.53m	0-0.30m 0.30-1.38m 1.38-1.47m 1.47-2.00m	hardcore dark brown peat grey silty sand grey sand
KS 7	4.55m	0-0.28m 0.28-1.45m 1.45-1.54m 1.54-1.66m 1.66-1.75m  1.75-2.00m	hardcore dark brown peat detrital mud blue-grey clay silty grey clay possible second layer of detrital mud grey sand
KS 8	4.54m	0-0.38m 0.38-1.66m 1.66-1.82m 1.82-1.98m 1.98-2.00m	hardcore dark brown peat detrital mud blue-grey clay grey sand
KS 9	4.51m	0-0.40m 0.40-0.74m 0.74-1.66m 1.66-1.74m 1.74-2.40m 2.40-3.00m	hardcore dark grey brown peat dark grey peaty clay, more silt than above detrital mud blue-grey clay grey sand
KS 10	4.35m	not augered	



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<b>auger hole</b>	<b>surface OD</b>	<b>depth</b>	<b>description</b>
KS 11	4.64m	0-0.60m	hardcore
		0.60-1.78m	dark brown clayey peat, becoming more organic
		1.78-1.94m	grey clayey peat
		1.94-2.00m	blue-grey peaty clay
		2.00-2.97m	blue-grey estuarine clay
KS 12	4.50m	0-0.5m	hardcore
		0.50-1.85m	brown non-organic peat
		1.85-2.12m	peaty blue-grey clay
		2.12-2.50m	blue grey clay
		2.50-2.54m	peaty clay
2.54-3.00m	orange-grey sand		
KS 13	4.43m	0-0.86m	hardcore
		0.86-1.54m	black peat
		1.54-1.70m	detrital mud
		1.70-2.84m	blue-grey clay
		2.84-3.00m	grey sand
KS 14	4.38m	0-0.88m	hardcore
		0.88-1.63m	peat
		1.63-1.75m	detrital mud
		1.75-2.50m	blue-grey clay
		2.50-3.00m	grey sand
KS 15	4.60m	0-0.70m	hardcore
		0.70-1.56m	peat
		1.56-2.93m	blue-grey clay
		2.93-3.03m	dark blue grey detrital mud
		3.03-4.00m	grey clay grading to orange occasional chert fragments
KS 16	4.65m	not augered	

## **SITE ARCHIVE**

The permanent site archive, which consists of a written report, full description of the sediments, and plan of their location is stored at the Clwyd Powys Archaeological Trust, 7a Church Street, Welshpool.