LAND ADJACENT TO PORTBURY HOUSE, CLEVEDON, NORTH SOMERSET

ARCHAEOLOGICAL ASSESSMENT AND WATCHING BRIEF

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FOR
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Cotswold Archaeological Trust
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GLOSSARY

ANGLO-SAXON
Taken here as the period from the end of the Roman era c.400 to the Norman Conquest (1066).

ARCHAEOLOGY
For the purposes of this project archaeology is taken to mean the study of past human societies through their material remains from prehistoric times to the modern era. No rigid upper date limit has been set but AD 1900 is used as a general cut-off point.

BRONZE AGE
Chronological division of the prehistoric period which sees the introduction of copper and the eventual widespread adoption of bronze weapons, implements, jewellery etc. In Britain it is dated between c 2300 BC-700BC.

CAT
Cotswold Archaeological Trust.

SRO
Somerset county Record Office, based at Taunton

IFA
Institute of Field Archaeologists.

IRON AGE
The first period in which iron was the predominant metal. In Britain it is dated between c 700 BC to the Roman conquest in AD 43.

MEDIEVAL
Taken here as from the Norman Conquest (AD 1066) to c AD 1500.

NEOLITHIC
A chronological division of the prehistoric period during which agriculture and domesticated animals were introduced to Britain. It is dated between c 4500 BC to 2000 BC.

NGR
National Grid Reference.
OD
Ordnance datum; used to express a given height above mean sea level.

OS
Ordnance Survey.

PALAEOLITHIC
Archaeological period encompassing all cultures pre-dating 10,000 BP and characterised by the use of stone tools. The earliest Palaeolithic in Britain is generally taken to be from the site of Boxgrove in West Sussex and dating to c.500,000 BP. The Palaeolithic has been given Lower, Middle and Upper sub-divisions.

POST-MEDIEVAL
The period following the medieval period. From c.AD 1500 to the industrial revolution.

PRN
Primary Record Number.

ROMANO-BRITISH
Term used to describe a fusion of indigenous late Iron Age traditions with Roman culture, often abbreviated as 'R-B'.

SITE
For the purposes of this report, an area of archaeological activity as represented by features or artefact find-spots.

SMR
Sites and Monument Record, held by North Somerset County Council.

STUDY AREA
This is the general area, usually the property boundary surrounding the application area, which provides the focus for the report.

TRIASSIC
Geological period dating between 205 and 250 million years ago.
SUMMARY

A desk-based archaeological assessment was undertaken by Cotswold Archaeological Trust for land adjacent to Portbury House, south of Clevedon, Somerset in January and February 1997. The project was commissioned by Hoddell Associates for Crest Nicholsen in order to provide information to North Somerset Council on the archaeological implications of a proposed development.

There are no known archaeological sites within the study area, excepting an eighteenth century farmhouse and nineteenth century windmill.

Monitoring of geotechnical test pits and bore holes revealed a Holocene stratigraphy of almost 10m depth sitting on top of Pleistocene sands and gravels and Triassic mudstone. The Holocene strata consisted predominantly of silts and clays of a blue grey colour relating to a middle to late Holocene marine transgression, but also included peats. The latter were found at depths of between 6.3m and 8.9m below ground surface and represent a period of lower sea levels than present. Several large fragments of wood were recovered from the peats, which along with other plant macrofossil data indicate that the environment during accumulation was probably a wooded marsh.
1. INTRODUCTION

1.1 Introduction

1.1.1 In January 1997 Cotswold Archaeological Trust was commissioned by Hoddell Associates for Crest Nicholsen to undertake a desk-based archaeological assessment of land adjacent to Portbury House, south of Clevedon, North Somerset (centred on NGR: ST 411697, Fig. 1).

1.1.2 Following discussions between the client, Vince Russett, (Planning Officer (Archaeology), North Somerset Council) and Cotswold Archaeological Trust a programme of archaeological assessment and geotechnical monitoring was agreed. A two stage approach was implemented to gather sufficient information to enable North Somerset Council to assess the archaeological implications of the proposed development.

1.1.3 The desk study was conducted in accordance with the “Standard and Guidance for Desk Based Assessments” issued by the Institute of Field Archaeologists (IFA 1994). The project involved reference to readily accessible documentary and cartographic records in order to establish the likely extent, date and significance of any deposits present within the study area. The subsequent watching-brief was designed to check for the presence of archaeological material and other evidence of potential palaeoenvironmental importance during geotechnical investigations.

1.1.4 This report is structured as follows. The remainder of Section 1 sets the background for the study, summarising landuse, geology and topography. Section 2 details the results of cartographic and documentary research, discussing the known archaeological and historical features in the vicinity of the study area chronological order. Section 3 provides an assessment and synthesis
of the desk study, while Section 4 presents the results of monitoring the geotechnical investigations.

1.2 The study area

1.2.1 The study area lies approximately 1km south of Clevedon and 3.5km north of Yatton within the small parish of Kenn, close to the southern edge of Clevedon parish. The study area consists of a broadly triangular parcel of land bounded by the B3133 Kenn road to the south-west, by a lane running to Clevedon Farm and Kennmoor Road to the north, and by the M5 to the south-east.

1.3 Landuse, geology and topography

1.3.1 The study area encompasses the farm complex of Portbury House and adjoining farmland. A series of pasture fields are crossed by substantial, broadly east-west aligned, drainage ditches forming part of an extensive network draining the flat and marshy countryside into the river Kenn.

1.3.2 The site lies on Triassic Mercia Mudstone (formerly Keuper Marl) strata. This is overlain by Quaternary “alluvium” (British Geological Survey (BGS) 1/50,000 map 264), relating to various marine transgressions in the Holocene. The BGS do not separately map peat deposits unless outcropping at the surface, which they do not at the present site. However, drilling carried out prior to construction of the adjacent M5 motorways revealed several peat horizons. These relate to a series of phases of marine regression over the past 10,000 years. Similar peat horizons have also been found east of Kenn village where they have been dated to the Neolithic – Iron Age (Butler 1987; Rippon 1995). The study area is separated from the Kenn Moor basin by a ridge of “glacial sand and gravel” (BGS) or Triassic mudstone (Gilbertson and Hawkins 1978;
Rippon 1995). The bore hole study described in section 4 found both sand and gravel deposits and Triassic mudstone beneath the alluvium on the present site.

1.3.3 The proposed development area lies within the low lying North Somerset Levels at between approximately 6 and 7m OD, slightly raised above the area of Kenn Moor to the east at approximately 5m O.D.

1.4 Data Sources

1.4.1 The main sources of information accessed during the course of the assessment consisted of the North Somerset SMR, Somerset county Public Record Office, Clevedon Library and the National Monument Record at Swindon.

1.4.2 The SMR and NMR databases show two listings on the edge of the study area, with numerous entries recorded within the wider locality (Fig. 2; Appendix 1).

1.4.3 Cartographic and documentary evidence relating to the site proved relatively limited, with no coverage predating the post-medieval period. The earliest map coverage of the study area consisted of an estate map of Clevedon dated c. 1750, the extreme south of the parish with Portbury House being indicated but not named. A manorial map of Kenn dated 1811 and the 1841 Clevedon tithe map cover the study area in more detail. OS first and second edition 6" and 25" maps of 1885 and 1905 were also consulted, along with the 1:2500 map of 1973.

1.4.4 Estate maps covering other parts of the parish exist, along with a wide-ranging collection of non-specific documents relating to Kenn and Clevedon (these were noted but not examined in detail). The Victoria County History of Somerset does not yet cover either Kenn or Clevedon. The indices of the Proceedings of the Somerset Archaeological and Natural History Society were also checked for listings under Kenn and Clevedon.
1.4.5 Aerial photographic coverage of the study area held in the collections of the RCHME at Swindon was also consulted. A total of 31 vertical and two oblique prints were examined but these revealed no archaeological features.

1.4.6 A preliminary site visit made on 24th January 1996 to view the study area revealed no discernible features.
2. THE RECORDED ARCHAEOLOGICAL RESOURCE

2.1 General

2.1.1 The area immediately south of Clevedon around Kenn village is rich in archaeological remains, with a particular concentration of find spots and structures highlighting Romano-British occupation. Whilst there is no specific evidence to indicate that deposits predating the post-medieval period lie within the study area, there is a possibility that such occupation might be present.

2.2 Prehistoric

2.2.1 No sites of prehistoric date are recorded within the study area on the North Somerset county SMR. Prehistoric finds spots and settlement remains have however been recorded from the wider locality (Fig. 2). A bifacial handaxe of Palaeolithic date was found in material dredged from the river Kenn to the east of the study area (RCHME ref. 195011; ST 4256 6977). Iron Age occupation in the locality is represented by the promontory fort and univallate hillfort at Wains Hill (RCHME ref. 192815, ST 391 706) 2km to the north-west of the study area, and also by pottery found during the cutting of gas main to the east of the study area (RCHME ref. 195073; ST 424 694).

2.3 Romano-British

2.3.1 Rippon (1992) has recently discussed the evidence for Roman activity on the North Somerset Levels. He concluded that in the immediate pre-Roman period the area consisted of a mixture of mature saltmarsh and brackish fen. In the Roman period the open stretch of coastline was probably protected by a sea wall, and the major tidal rivers embanked. Some areas were clearly largely free from
flooding, such as the area around Kenn Moor to the south-east of the study area where widespread evidence of Romano-British occupation has been recovered within a radius of 1-3 Km of the study area (Fig. 2). The evidence takes the form of surface finds of pottery (RCHME refs 195033, 195036, 195039, 195049, 195052, 195055, 195058, 195061), a corn dryer (RCHME red 195014; ST 4226 6795; Rippon 1994, 1995), two burials (one within a stone lined cist) (RCHME refs 195019; ST 4231 6776 and ST 4233 6777) and putative Roman drainage and field system earthworks (RCHME refs 984068, 984071; ST 424 693, ST 423 687, ST 425 690, ST 4240 6752).

2.3.2 While Kenn Moor was undoubtedly settled, Rippon (1992) notes that there are also quite large areas where settlements appear to have been absent. Along the line of the M5 motorway there were just two occurrences of Roman pottery; Rush Bridge (NMR 195039) and further to the south around Kingston Seymour. As there is a greater density of Romano-British sites to the west in Kingston Seymour and to the east in Kenn, Rippon suggests that the M5 runs through the site of a low lying back fen between the extensively settled Kenn - Yatton ridge and the higher alluvial areas to the west. It is possible therefore that the study area was occupied by fen during the Roman period.

2.4 Anglo Saxon

2.4.1 The lack of post Roman alluvium in the North Somerset levels indicates that there have not been significant marine transgressions since the Roman period.

2.4.2 No Anglo-Saxon remains are recorded from the study area. Settlement at Kenn, or “Chen” is documented at the time of the Domesday Survey in 1086. Placename studies suggest Kenn's derivation may be from the Celtic “cefn”, abbreviated from “Ken-y-vign”, a mound in the moor, a ridge of land rising out of a flat and boggy place. Alternatively “Coen” is a common Saxon name, also “Cen” and “Ken”, and possibly the origin of the place name Kenn (Hill 1914).
The settlement name may be derived from the river on which it is situated, the river name being identical with the modern word "cairn" meaning "clear, bright, fair" (Turner 1951).

2.4.2 The study area lies approximately 1km north of the assumed Saxon core of Kenn. The Anglo-Saxon manor first documented in the Domesday survey remains unlocated.

2.5 Medieval

2.5.1 At the time of the Domesday Survey Kenn or Chen(t) was held by the Bishop of Coutances, as half a hide and with one servant (Morris 1980). It was valued at five shillings. The church dates to after the eleventh century (Hill 1914). Kenn is given as Kenn in 1166, (de) Ken by 1174-91, Ken in 1198-9, Northken in 1267-8, North Ken juxta Jatton in 1295-6, and Ken by 1327. The possessors of the manor adopted the name Ken over many generations, from the reign of Edward II through to the 17th century (Collinson 1791).

2.6 Post-medieval and modern

2.6.1 The earliest cartographic coverage of the study area appears to be a Clevedon estate map dated c 1750 showing the extreme southern part of the parish, with Portbury House marked but not named. Greater detail is provided by a later manorial map of Kenn dated 1811 (Fig. 3). This shows the study area as a series of land plots in the ownership and occupation of a Charles Barns. Plot 1 contains the house, outbuildings and garden of Portbury House.

2.6.2 The study area is not covered by the Kenn tithe map of 1841 (which details allotment holdings on Kenn Moor) but is partly covered by the Clevedon tithe map of the same year. This shows Portbury House (plot 722) as a "dwelling,
house and barn” owned by a Samuel Parnell and occupied by Samuel Alvis. Adjacent plot 723 is shown under garden, plot 724 as an enclosure (equivalent to plots 1 and 2 on the earlier 1811 manorial map), plot 725 as orchard, plot 726 under pasture (equivalent to 1811 plot 12) and plot 727 as “Home Ground” (equivalent to 1811 plot 3).

2.6.3 Later OS map coverage records few significant changes to the layout of the study area. The first edition 6" and 25" maps show Portbury House in detail and the site of Kenn windmill (Fig. 4), with the land parcels unchanged from their present arrangement.

2.6.4 The North Somerset SMR lists two post-medieval structures in the vicinity of the study area. Portbury House is listed as a farmhouse with attached stables and barn, dating from the mid eighteenth century with later additions (PRN 9021; ST40876978). Kenn windmill (PRN 287; ST41066958) lies alongside the southern edge of the study area. The SMR listing states that it has an inscribed stone dating its construction to 1821. This tower mill was a three-storey structure, in use until the end of the 19th century. A pony is said to have been used to assist in winding the mill by tailpole, a braced lever extending from the cap to the ground where the miller could turn the sails into the wind in a similar manner to winding a post mill. Although it had sails the mill was powered by an oil engine from the 1880s, perhaps due to difficulties associated with its low position on the moor. The tower was truncated c.1900 and then thatched, being used as a slaughterhouse before the First World War. By the 1930s the millstones were in pieces but remained at the farm, and the tower was subsequently used between 1939 and 1945 as a home guard lookout. Its most recent usage has been as an incinerator. The mill may be linked with events in 1830 when three men were sentenced to death for setting fire to some mows of wheat there. The men were ordered to be executed by the High Sheriff on the spot where the crime was committed. Fourteen thousand people are recorded as having collected on Kenn Moor to see the execution (Coulthard and Watts 1978).
3. ASSESSMENT AND SYNTHESIS

3.1. No known prehistoric or Romano-British remains lie within the proposed development area, although remains of this date are known from the locality. It is possible that the study area was largely wet fen in the Roman period.

3.2. No finds or structures dating to the Anglo-Saxon or medieval periods are known from the study area or its immediate vicinity. Given the distance from the historic core of Kenn it appears unlikely that occupation of this date extended into the study area.

3.3. The proposed development area contains a farmhouse complex at Portbury House dating from the eighteenth century. Although remains of demolished and/or infilled structures, boundaries or other features relating to this period of occupation might exist these are most likely to be concentrated around the area of the present farmhouse. In addition the study area lies adjacent to the site of a nineteenth-century windmill. The likelihood of features associated with milling extending eastwards into the study area appears low.

3.4. No archaeological remains were noted during the construction of the M5 motorway immediately adjacent to the site, and there are no visible earthworks or obvious surface scatters of archaeological material within the study area. As there is little evidence for post-Roman alluvium on the North Somerset levels it is unlikely that Roman or later deposits will be buried to any depth. It is, however, conceivable that prehistoric features may be buried beneath the alluvium.
4. MONITORING OF THE GEOTECHNICAL INVESTIGATIONS

Keith Wilkinson

4.1 Introduction

4.1.1 As part of the assessment exercise a watching brief was carried out during excavation of 22 geotechnical test pits and three bore holes. The purpose of this was, not only to note the presence of any archaeological features and artefacts, but also to make a preliminary geoarchaeological assessment of the stratigraphy. A geoarchaeological study of this nature is intended to predict how likely archaeologically important material will survive in strata buried at depths where standard archaeological field evaluation is logistically difficult and prohibitively expensive.

4.1.2 The geotechnical test pits consisted of c.3m x 0.8m slots excavated to between three and four meters below ground surface. They were dug using a 0.8m toothed bucket attached to the rear actor of a standard JCB mechanical excavator. The sediments revealed in section were described to standard criteria either from direct inspection of the trench edge (to depths of 1.2m), or by examination of the spoil (depths greater than 1.2m).

4.1.3 The bore holes were drilled to a depth of 15m below ground surface using a cable percussive drilling rig. Sediments retained in the drill head were described to standard criteria upon extraction, while material from organic horizons was sub-sampled for later laboratory assessment of included bio-remains. It should be emphasised that data produced by this drilling methodology is of low resolution, with recorded depths typically being within ±0.2m of the actual value. Similarly as no stratified samples (i.e. U4/100 samples) were taken for archaeological usage, no material of a suitable nature (i.e. that was both unmixed and from an exactly known stratigraphic position) was available for detailed laboratory study or \(^{14}\text{C}\) dating.
4.1.4 The results of the watching brief are described in the following sections, which provide an account of site stratigraphy in reverse chronological order. This is also summarised in Fig. 5, which is a generalised lithological model of deposits, based on logs from all test pits and bore holes. Logs detailing lithology for each test pit and bore hole have not been presented here, but are available as paper records in the site archive.

4.2 Results

4.2.1 Triassic red sandy silts

4.2.1.1 These deposits were recorded at depths exceeding 9.95-11.40m below ground surface in all bore holes. The deposit consisted of an unconsolidated and heavily weathered horizon of up to 3m thickness, overlying fully lithified material. In all cases sediment properties were similar, consisting of reddish brown sandy silts with thin parallel beds of light grey blue granular clasts in a silt matrix.

4.2.1.2 The red sandy silts are almost certainly part of the Triassic Mercia Mudstone group, of which the grey green granular bands are a characteristic (caused by differential oxidation states of iron in the constituent minerals) (Green 1992). The deposits are of no archaeological interest.

4.2.2 Pleistocene poorly sorted coarse sand / gravels

4.2.2.1 Coarse-grained deposits dominated by angular and sub-angular clastic material were found in all bore holes at between 8.9-9.4m below ground surface. The deposit is a maximum of 2m thick and shows a broad coarsening downward trend in particle size. The clasts observed in the drill head included Triassic, Jurassic and most significantly Cretaceous material (i.e. flint). While
strata of the former two periods occur locally, Cretaceous deposits do not exist within c.30km+.

4.2.2.2 The angularity of the clasts, and the poor sorting of the sediments indicate a non-fluvial origin, while the presence of Cretaceous “erratics” indicates long distance transportation. Two possible explanations for the genesis of the sand / gravels can be suggested; firstly as “Head”, i.e. solifluction debris accumulating in a periglacial environment as a result of freeze thaw processes, and secondly as “glacial sands and gravels”, i.e. outwash material from a nearby glacier. The BGS map “Head” as occurring 2km to the north-west and “glacial sands and gravels” immediately adjacent in Kenn village, while Green (1988) states that glacial outwash deposits were found beneath the M5 immediately adjacent to the site. It is therefore more likely that the coarse sand / gravels on the present site are a sub-surface extension of the outcrops in Kenn.

4.2.2.3 If the deposits are indeed the product of glacial outwash they must date from the Anglian cold stage (c.430,000-480,000 BP), as in places the gravels beneath the M5 were overlain by deposits of Ipswichian (c.110,000-128,000 BP) date (Green 1988). Later Devensian (c.110,000-10,000 BP) ice sheets are not known to have extended as far south as the Bristol Channel.

4.2.3 Undated Holocene peats and organic silts

4.2.3.1 Peats and organic silts were found in all three bore holes, but varied greatly in properties and depth. In bore hole 1 a 0.6m thick wood peat overlying a highly humified organic silt was found immediately overlying the coarse sand / gravels at 8.3-8.9m below ground surface. In bore hole 2 an initial peat unit was located at between 6.3 and 6.5m below ground surface, with a lower moderately humified peat containing large wood fragments extending from 6.9 to 8.9m below ground surface. This peat also rested on the coarse sand / gravels. In bore hole 3 lenses of peat up to 0.1m thick were found within the
blue grey silt / clays discussed below at depths of 7.6m and 8.8m below ground surface.

4.2.3.2 The variability in thickness and depth of encounter of the peat units is probably a reflection of a combination of factors; the most important of which are past surface morphology and post-depositional erosion. Peat forms in damp environments where the presence of water is discontinuous and therefore where vegetation can develop. Some of the large wood fragments noted in bore hole 2 are likely to be from trees such as alder or willow. The presence of peat units indicates the former existence of a terrestrial ground surface.

4.2.3.3 No chronological information is available for the formation of the peats on the present site, although it seems certain that this was at some point in the early or middle Holocene. It is possible that they can be correlated with those studied by Butler (1987) at Kenn Pier which were dated to 6200±100 BP. Rippon (1992; 1995) maps the Kenn peat deposits as being contained within a basin occupied by Tickenham and Kenn Moors. This is separated from the present site by a ridge of "glacial sand and gravel" or Triassic mudstone.

4.2.3.4 Peat deposits similar to those described above were also found adjacent to the site in two bore holes drilled in advance of construction of the M5 motorway. As OD heights were not obtained either from the present site or those on the course of the M5, no direct comparison can be made. However, over 1.5m of peat were found in one of the M5 bore holes at what appears to be a comparable depth to that in bore hole 2. This information may suggest that a 1.5-2.0m thick band of peat passes along the north-eastern part of the site and under the M5. It may then to thin in a westerly and southerly direction.

4.2.4 Undated Holocene blue grey silt / clays
4.2.4.1 This deposit was found in every test pit and bore hole. Its base was not located in the test pits, but in the bore holes it had a diffuse contact with the underlying peats at between 6.3 and 8.3 metres below ground surface. There were hints that the sediment had a lamina structure, although close examination was not possible in the test pits for safety reasons, while the material recovered in the bore holes was mixed by the drilling process. If, however, this structure is present it indicates that deposition was as a result of a series of discrete events. The grey blue colour lightens upwards in all except the easternmost test pits. This colour change is almost certainly the result of differential oxidation / reduction conditions, i.e. less oxygen available at depth. It is therefore a result of post depositional processes and not a primary characteristic of the sediment.

4.2.4.2 In test pit 1 and bore hole 3 a fine sand was found 2-2.80m below the ground surface. It is notable that both test pit 1 and bore hole 3 are located in the south-east of the site. This may indicate that a channel once existed in this area, i.e the relatively coarse grained sediments are more likely to be the fill of an intertidal creek than foreshore drapes.

4.2.4.3 The blue grey silt / clays almost certainly formed as a result of marine processes, and most likely in an intertidal environment. Each of the laminae mentioned in 4.2.4.1 is likely to represent a discrete tidal event, although which tide (e.g. Mean High Water Spring Tide (M.H.W.S.T.) etc) is unknown. It is likely that during this deposition the study area, in common with much of the North Somerset levels, consisted of mud flats similar to those found in tidal stretches of the river Severn today. A thin (0.8m) of similar blue grey sediment has been found 1km to the east by Rippon (1995), who dates its formation to the Iron Age.

4.2.4.4 The blue grey silt / clays may broadly correlate with the Upper Wentlooge formation of Allen and Fulford (1986).
4.2.5 Undated, weathered silt / clays

4.2.5.1 Red brown silt / clays up to 1.5m thick (reaching up to 2.4m below ground surface) were found in the majority of the test pits and in all three bore holes. The sediments appeared well sorted with no coarse particles, and therefore suggest deposition in an alluvial environment. The reddish hue is an indication of weathering as a result of alternate periods of wet and dry conditions. Therefore it is most likely that the deposits accumulated as a result of overbank flooding from the river Kenn rather than as a direct result of marine transgression. Further evidence for this hypothesis are the few mollusc shells noted from the deposit, which are of *Cepaea* sp., a large-shelled terrestrial species common on floodplains.

4.2.5.2 If the weathered silt / clays are indeed a result of fresh water alluvial deposition they may equated with fresh water organic deposits found immediately overlying marine clays to the east of Kenn (Rippon 1995). The pollen spectra from the latter indicate an open farmland environment and a tendency for increasingly dry conditions with time.

4.2.5.3 No artefacts were found within the weathered silt / clays on the present site, although on stratigraphic grounds the fresh water organic deposits east of Kenn have been dated to the Iron Age.

4.2.6 Modern soil / subsoil

4.2.6.1 The modern soil A horizon is consistent across the site and consists of between 20-30 cm of a dark grey brown humic silt / clay with occasional charcoal fragments. There is no evidence of gleying in any of the topsoil examined indicating that flooding has not been a significant problem in recent times.
4.2.6.2 In the southern ploughed field there is a diffuse boundary from the A to the B horizon, but where in the northern fields pasture is present this boundary is sharp. The B horizon is more variable in thickness than the overlying A horizon, varying between 20-50cm. It consists of a mid yellow brown silt / clay with an apparent reduction of particle size downwards. The B horizon seems to be largely a product of eluviation.

4.2.6.3 No artefactual material older than the post medieval period was found from the modern soil, indicating that it has a relatively recent developmental history.

4.3 Assessment of the stratigraphy

4.3.1 A discontinuous history of environmental change is revealed by the sediments exposed in the test pits and bore holes. The earliest environment of potential archaeological interest is that represented by the coarse sands / gravels. These are likely to have formed as outwash from a glacier sitting in the Severn estuary during the Anglian cold stage. It is extremely unlikely that humans inhabited the area at the time and thus no archaeological remains are to be expected from these deposits. It is probable that an unconformity exists between the coarse sands / gravels and the overlying peats, during which period several depositional and erosional episodes may have taken place.

4.3.2 The peats are likely to have formed in the early or middle Holocene during an episode of lower sea level (the peats occur at around –1 to –3 OD). Exactly when cannot be determined without C14 dating, which because of the geotechnical methodology was not possible during the present programme of work. However, by reference to the Holocene sea level curves of Heyworth and Kidson (1982) which have index points from both Clevedon and Kenn, it is likely that the peats were submerged by the rising sea between 6,000-5,000 BP.
As no marine / intertidal deposits exist below the peats a similarly generated estimate for the initiation of peat formation cannot be made.

4.3.3 The peats are of potential archaeological significance as they represent the former presence of marsh, an environment commonly exploited by prehistoric populations. It is notable that the Sweet Track and other well known trackways dating from the Neolithic to Bronze Age were found within peats in the nearby Somerset levels.

4.3.4 The fact that the peats are encountered between 6.3 and 8.9m below ground level suggests that they will not be directly effected by any development, unless this involved the construction of deep basements. However, it was observed that a secondary water table is perched on the peat, and therefore even limited truncation (for example puncturing as result of piling) may lead to local dewatering and hence deterioration of organics. It should also be pointed out that the peats only seem to occur in thick beds along the eastern side of the site.

4.3.5 The blue grey silt / clays overlying the peats are likely to have formed in an intertidal environment, forming as sea levels rose to inundate the previous marshland. The fact that in the initial stages some peat development continued suggests that this was a gradual process. As the blue grey silt / clays formed in what is basically a shallow marine environment the opportunity for human activity would be small, and therefore archaeological features are unlikely to be encountered.

4.3.6 The red brown silt / clays seem to have developed directly from the underlying blue grey silt / clays as fresh water fluvial sedimentation began to dominate. If correct this would suggest that the Kenn river floodplain was wider at this time than at present. It is possible that archaeological features could be encountered in this stratum, although these would most likely be stray finds rather than structures.
4.3.7 All overlying deposits have been dated to the post medieval period on the basis of the recovered ceramics. They are therefore, in the absence of any evidence indicating the presence of settlement, of limited archaeological potential.
5. ACKNOWLEDGEMENTS

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6. REFERENCES CITED


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7. CARTOGRAPHIC SOURCES

(1811) The manor of Kenn, Somerset. The property of the Earl Poulett surveyed in the year 1811. D/SAS C212 Kenn 1811.

(1841) Apportionment map and award, 26.6" to 1 mile. ERO: D/CT 395(b)

(1885) OS 1st edition, 25" to 1 mile, sheet lxix.5.

(1885) OS 1st edition, 6" to 1 mile, sheet lxix.5.

(1905) OS 2nd edition, 25" to 1 mile, sheet lxix.5.

(1984) OS 1:10,000 Pathfinder 1182 (St 46/56) Yatton and Chew Magna.

(1973) OS 1:2500.

(c 1750) The map of an estate at Clevedon. DD/BR/U5 Pt 1 of 2. Surveyor unnamed. Extreme south of parish. Portbury House shown but not named.

(c 1780) Manor of Kenn. DDPT H/452. Survey with illustrating plans of tenements in the manor of Kenn.

(1841) copy of tithe map and award. D/RA 1/2/102. Covers allotments on Kenn Moor but does not extend to study area.

Kenn, Clevedon and Portbury placename and subject indexes were also checked.
APPENDIX 1. SMR AND NMR LISTINGS

SMR listings:

PRN 287    ST 41066958    Kenn windmill
PRN 9021    ST 40876978    Portbury House

NMR listings:

192815    ST 39 70, ST 3910 7067    Wains Hill
195000    ST 4032 6877    Bulbeck Manor
195006    ST 4159 6895    Kenn churchyard cross
195011    ST 4256 6977    Flint handaxe
195014    ST 4226 6795    Romano-British corn drying kiln
195019    ST 4231 6776    Romano-British inhumation
195019    ST 4233 6777    Romano-British inhumation
195024    ST 4139 6881    Dovecote
195029    ST 4159 6897    Church of St. John the Evangelist
195033    ST 421 681    Romano-British pottery
195036    ST 4009 6840    Romano-British pottery
195039    ST 410 686    Romano-British pottery
195049    ST 4249 6732    Romano-British pottery
195052    ST 4240 6767    Romano-British pottery
195055    ST 4227 6863    Romano-British pottery
195058    ST 4227 6898    Romano-British pottery
195061    ST 4251 6933    Romano-British pottery
195073    ST 424 694    Iron Age pottery
195072    ST 4106 6958    Kenn windmill
513511    ST 419 692    Latcham House
523429    ST 412 688    Kenn Court Farm
984068    ST 424 693, ST 423 687, ST 425 690    Drainage system, possibly Roman, noted as earthworks
984071    ST 4240 6752    Drainage system, possibly Roman, noted as earthworks
Fig. 5. Composite section generated from test pit and bore hole data.
Fig. 1 Location plan
Fig. 2  Recorded archaeology in vicinity of proposed development area