Report No: 2014R033



Carvinack, Shortlanesend, Kenwyn, Cornwall

An Archaeological Assessment



Cornwall Archaeological Unit

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This study was commissioned by Patrick Colledge for Linden Homes and carried out by Cornwall Archaeological Unit (formerly Historic Environment Projects), Cornwall Council.

The Project Manager was Dr Andy Jones.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

Looking southwest across the Project Area from Idless Lane towards houses on Ashley Road, Shortlanesend

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Abbreviations

AEL	Anciently Enclosed Land
AGLV	Area of Great Landscape Value
CAU	Cornwall Archaeological Unit
HER	Cornwall and the Isles of Scilly Historic Environment Record
HLC	Historic Landscape Characterisation
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
NMP	National Mapping Programme
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey

Carvinack, Shortlanesend, Kenwyn, Cornwall: An Archaeological Assessment

1 Summary

Cornwall Archaeological Unit (formerly HE Projects), Cornwall Council, were commissioned by Patrick Colledge on behalf of Linden Homes/Galliford Try Partnerships in April 2014 to undertake an Archaeological Assessment on a proposed development site at Carvinack, Shortlanesend, Cornwall. The assessment incorporates the results of a rapid desk-based study, a walkover survey and the summarised results of a geophysical (magnetometer) survey.

The proposed development site at Carvinack, Shortlanesend, lies within land characterised through Historic Landscape Characterisation (HLC) as 'Anciently Enclosed Land' – typically land that has been continually farmed since prehistory and whose boundary arrangements were reorganised to a substantial degree during the medieval period. AEL frequently contains archaeological remains dating from the medieval period and earlier and it is typical for patterns of present day enclosure to fossilise older boundary elements of prehistoric and Romano-British land organisation.

Carvinack is an historic settlement of at least medieval date. A late prehistoric enclosed settlement, or round, may have preceded the current farmstead (based on place-name evidence) but there is currently no definitive upstanding evidence for this. A round 500m to the west of Shortlanesend was excavated in the late 1970's, however, and there is additional evidence for enclosed settlements of a similar age and type within the near locale. Carvinack is situated close to the edges of higher ground on Allet Downs and the evidence from historic maps indicates that Shortlanesend (formerly Shorts Lane End) may have marked the end of the historic route out of Truro to the northwest at the point where it became a trackway across Allet Downs.

There is evidence for late prehistoric barrow cemeteries of Early Bronze Age date on the higher ground to the northwest of Carvinack and two field names associated with the settlement, one of which lies within the proposed development site, contain the name 'barrow', which may indicate the presence of a barrow, or barrows, in the near vicinity.

The desk-based study therefore suggests a farming settlement within ancient agricultural heartland but towards the edges of the higher ground and potentially impacted by changes in pressure for available good agricultural land.

The magnetometer survey of the proposed development site at Carvinack was carried out in July 2014 by Archaeophysica Ltd. The findings identified several features of archaeological interest within the survey area including a concentration of possible late prehistoric roundhouses and an associated field system, the morphology of which usually indicates settlement of Bronze Age, Iron Age or (possibly) Romano-British date. A large (20m in diameter) circular feature in the northern field is particularly unusual and may represent either a complex barrow or enclosed roundhouse. The physical juxtaposition of a possible mortuary barrow and later farming settlement is unusual and is of particular interest, given the historic transitional character of the land at Carvinack, close to the edges of the higher ground.

The features identified by the geophysical survey are therefore considered to be of archaeological significance on a regional and national scale. On this basis further field evaluation of the potential range of buried archaeology is recommended.

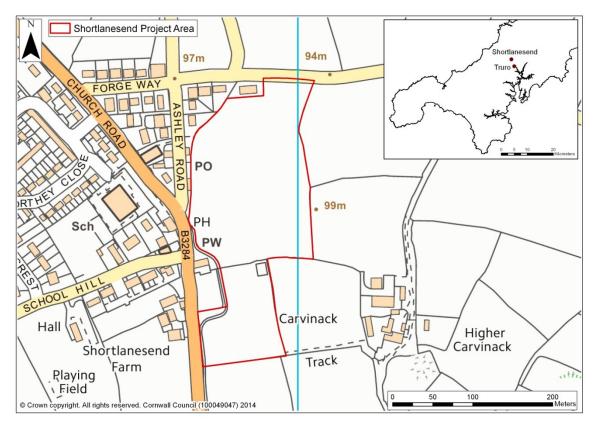


Fig 1 Location map

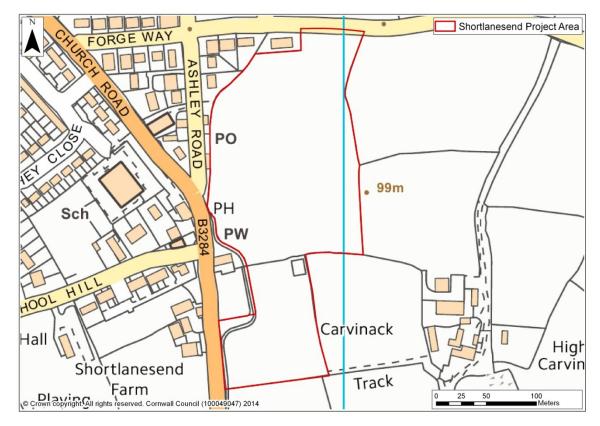


Fig 2 Site extent

2 Introduction

2.1 Project background

Cornwall Archaeological Unit (formerly HE Projects), Cornwall Council, were commissioned by Patrick Colledge on behalf of Linden Homes/Galliford Try Partnerships in April 2014 to undertake an Archaeological Assessment on a proposed development site at Shortlanesend. The assessment was requested by the client ahead of a planning application and incorporates the results of a rapid desk-based study and walkover survey with the results of an independent magnetometer survey commissioned by the client and carried out by Archaeophysica Ltd (Fry and Roseveare 2014).

2.2 Aims

The principal aim of the study is to gain a better understanding of the impacts of a proposed housing scheme on land at Carvinack, Shortlanesend in the parish of Kenwyn. The overall project aims are to:

- Collect and report on archaeological information about the development site in order to determine the potential direct impacts on upstanding and sub-surface archaeology within the footprint of the proposed development.
- To recommend any mitigation measures which might be required by the Senior Development Officer (Historic Environment) to offset or mitigate any determinable impacts on the site.

The site specific project aims are to:

- Carry out a rapid desk-based assessment to collate information from historic maps and data sources such as historic landscape characterisation, remote survey and the Cornwall and Scilly Historic Environment Record (HER)
- Summarise the results of the geophysical survey and their regional and national significance.
- Produce a report in respect of these.
- Inform whether further archaeological recording or other mitigation is recommended in advance of, or during, the construction of housing.

The objective of the project is to produce a report setting out the likely range of impacts of the development on heritage assets within the site and to make recommendations to the Senior Development Officer (Historic Environment), Cornwall Council, relating to the development proposed for this site.

2.3 Methods

2.3.1 Desk-based assessment

During the desk-based assessment historical databases and archives were consulted in order to obtain information about the history of the site and any upstanding structures and features that were likely to survive. The main sources consulted were as follows:

- Cornwall HER
- Early maps and photographs (see Section 9.1)

2.3.2 Fieldwork

The project area at Carvinack, Shortlanesend comprises two fields (north and south), which lie in the east of Shortlanesend village (Figs 1 and 2). A walkover survey of the northernmost field was carried out on the 15th April and a series of digital photographs were taken. The day was fair and sunny and there were no obstacles with access. A rapid revisit to take some additional digital photographs of the southernmost field, which was appended to the project area, was carried out late afternoon on the 27th July. On this occasion the day was also fair and sunny but the light was low at the time of the visit.

Both fields within the project area were under cover of low pasture, the northernmost field being under low meadow grass and field flowers and the southernmost under cropped grass and scrub. No features were visible above ground in either field.

2.3.3 Post-fieldwork

On completion of the project and following review with the CAU Project Manager the results of the study were collated as an archive in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006*. The site archive will initially be stored at ReStore, with the eventual aim of deposition at Cornwall Record Office.

An archive report (this report) has been produced and supplied to the Client. This report will be lodged in digital form with the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation once a planning application for the site has been made. A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon, to the Courtney Library of the Royal Cornwall Museum and to the Cornish Studies Library. All digital records will be filed on the Cornwall Council network.

An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record has been made covering this project.

2.3.4 Geophysical survey

A Geophysical consultancy (Archaeophysica Ltd.) was engaged by Patrick Colledge of Linden Homes/Galliford Try Partnerships to carry out a geophysical (magnetometer) survey of the land proposed for the housing development at Shortlanesend.

The survey took place in late July 2014 when field conditions were good with both fields under low pasture. Geometrics MagMapper G858 caesium magnetometers were used to carry out the magnetometry survey, utilising a multisensor acquisition system. The sensors were set to 0.03 nT at 10Hz to maximise sensitivity whilst decreasing the effects of surface anomalies. Line separation was 1.0m to achieve a compromise between speed of coverage and lateral resolution. The along-line interval was 0.3m in line with English Heritage guidance.

The data from the survey was presented as a series of greyscale images overlaid onto map data geo-referenced to the OS grid, and these were reproduced in a technical report along with a text and an interpretative figure (Fry and Roseveare 2014). Significant aspects of the results are discussed within the specialist's report (and see Figs 24 and 25 this report).

3 Location and setting

The proposed development site at Shortlanesend is located in mid-Cornwall, around 3km to the northwest of Truro. The site is centred at SW 80935 47664 and incorporates two fields with a combined area of around 3.9 Ha (Figs 1 and 2). The proposed development land is located at around 95 to 100m OD, the field to the southwest sloping gently upwards from southwest to northeast and the northernmost field broadly occupying a wide level plateau at around 99m OD. The surrounding landscape is typically one of steep hills and wooded valleys and the plateau on which the proposed development site at Carvinack sits forms part of a ridgeway above the steep slopes of the Allen River valley to the northeast and the Kenwyn River valley to the south. The underlying geology comprises Middle Devonian mudstones, siltstones and sandstones of the Porthtowan Formation, part of the wider Gramscatho Basin deposits (Bristow 1996).

The proposed development site is located immediately at the eastern end of Shortlanesend bordering Church Road and Ashley Road and is situated between 100m and 300m to the northwest of the historic settlement of Carvinack. The site lies within land characterised through Historic Landscape Characterisation (HLC) as 'Anciently Enclosed Land (Farmland Medieval)' - (AEL) – that is land within ancient agricultural

heartland, predominantly lowland ground, which has typically been farmed continuously since later prehistory (Fig 9). It is not uncommon for the pattern of enclosure within land of this character type to partially fossilise older enclosure boundaries and alignments of late prehistoric or Romano-British date that may have been substantially reorganised by the medieval period. In some cases the medieval boundary alignments and patterns of later enclosure appear to wholly replace earlier field systems, often following different alignments altogether. This potentially indicates phases of discontinuity or the expansion and contraction of settlement and farming where it lies closer to the edges of higher ground.

Anciently Enclosed Land (AEL) frequently contains archaeological remains dating from the medieval period and earlier. There are a substantial number of Iron Age/Romano-British enclosed settlements or 'rounds' within the surrounding landscape at Shortlanesend, reinforcing that this was part of Cornwall's agricultural heartland from at least the late prehistoric period. The Cornish place-name element *ker* or *car* in the name 'Carvinack' may itself indicate a round (MCO7811) in the near vicinity of the proposed development site although today there is no physical evidence for this. The level plateau above the River Allen valley would potentially be a good location for an enclosed 'defensive' settlement; the Iron Age hillfort (MCO30) at Bishopswood, for example, occupies a similar hilltop within St Clements Woods near Idless around 2.25km to the northeast.

The 1840's Tithe map for Kenwyn indicates that the pattern of historic enclosure in the immediate vicinity of the proposed development site at Carvinack was one of irregular fields of various shapes and sizes (Fig 5). These closely respect the later historic settlement of Carvinack and may reflect medieval farmland worked in severalty by its inhabitants. In contrast to these are a number of narrower linear enclosures to the east of Carvinack, shown on the Tithe map and still preserved by the modern enclosure pattern (Fig 5). These are probably associated with the settlement of Idless, to the east, and are suggestive of medieval strip field boundaries fossilised by later enclosure.

To the northwest of Carvinack and Shortlanesend lies higher ground on the edges of Penhallow Downs; the 1840's Tithe map for Kenwyn parish shows this as Allet Downs and the 1880s OS map as Allet Common. Carvinack and Shortlanesend are both shown on Martyn's map of Cornwall, dated 1748 (Fig 3). Shortlanesend is given as Shorts Lane End and appears to mark the point at which an historic route out of Truro to the northwest via Kenwyn becomes a trackway or unmade up road crossing the higher ground of Allet Common (Fig 3). Earlier 17th century maps by Norden and Gascoyne show neither Shortlanesend nor Carvinack, nor the major roads in their vicinity.

The main road through Shortlanesend, currently the B3284, is now a main route out of Truro to the northeast, linking the city with the main A30 artery. As a result, there has been considerable development to the west of the main road at Shortlanesend during the latter part of the 20^{th} century.

4 Designations

4.1 National

None apply within the site.

4.2 Regional/county

None apply within the site.

4.3 Local

No local designations apply to the site proposed for the development, although the project area directly abuts the St Clement Area of Great Landscape Value (AGLV) along its northern edge.

4.4 Rights of Way

No rights of way traverse the proposed development site. This area is not registered as open access land under the CROW Act 2005.

5 Site history

The proposed development site at Carvinack, Shortlanesend, was historically an area of ancient farmland bordering the margins of common land on Allet Downs on the southeast edges of the wider Penhallow Downs.

The Cornwall HER documents a possible Iron Age or Romano-British round (MCO 7811) in the vicinity of Carvinack (Fig 12); this recorded is documentary only (based on placename evidence) and there is currently no physical evidence for the location of a round here. A round (MCO8478) does exist 500m to the west of Carvinack, however. The 1840's Tithe apportionment for Kenwyn parish documents the name of the field containing the round as 'Round Field' (see Fig 5). The round survived as a low earthwork by the 1950's and was assessed by a geophysical survey in 1977 ahead of housing development. The survey results detected strong magnetic disturbance and a number of features of probable archaeological significance. Excavations in 1979 exposed a section of a sub-rectangular ditched enclosure about 50m across. The internal occupation area was terraced into the hillslope and may have contained a turf or cob wall. Additional interior features included pits and at least one posthole and charcoal from the pits provided dates indicating occupation between the mid-2nd to early 3rd century AD (summarised from Cornwall HER monuments record). The subsurface preservation of the round and its interior features was clearly substantial, which has implications for the features of probable archaeological interest recorded by the geophysical survey of the proposed development land at Carvinack by Archaeophysica Ltd (Fry and Roseveare 2014 and see Section 6 below).

Two fields to the west of Carvinack, one of which lies within the proposed development site, are documented in the 1840's Kenwyn Tithe apportionment as 'Outer Barrow Close' and 'Inner Barrow Close', suggesting that there may be prehistoric barrows in the vicinity, although 'barrow' may alternatively be a derivation of 'burrow' – indicating rabbit burrows or other anomalous landscape features, natural or man-made. The National Mapping Programme (NMP), which maps potential archaeological above ground features using aerial photographs, does not currently indicate any cropmark evidence associated with either a prehistoric barrow cemetery or later prehistoric settlement or round within the proposed development site at Carvinack but the results of the geophysical survey (Fry and Roseveare 2014) indicate features that could potentially be associated with either or both these types of historic monument, subject to further investigation (see Section 6 below).

Archaeological evidence for prehistoric activity within the wider vicinity of the proposed development site indicates a number of prehistoric barrow cemeteries on the higher ground of Allet Downs at Halgarras, around 1km to the northwest. Within the lower lying historic farmland (AEL) there are a number of documented rounds and enclosures, probably of Iron Age or Romano-British date. These are typically located on the hilltops or higher hillslopes above the river valleys and include the Iron Age hillfort at Bishopswood (MCO30) and the Iron Age or Romano-British enclosure at Gwarnick Castle (MCO8009), both situated atop steep hilltop spurs above the Allen River valley to the northeast of Carvinack within 2.5km of the proposed development site. The current evidence demonstrates that Carvinack lay within ancient farmland but close to the edges of higher ground. As such it may have been situated in a transitional area that saw phases of settlement expansion and contraction as changes in population densities and climate created pressure on available good arable land and pasture. As indicated by the results of the geophysical survey (Fry and Roseveare 2014) there are potential sub-surface remains of late prehistoric or Romano-British date on a different alignment to the pattern of later historic enclosure (see Section 6) and which may partially reflect an earlier history of settlement expansion onto higher ground.

Although of undocumented age, the settlement of Carvinack is probably of at least medieval date (broadly 11th to 16th century) and the presence of a possible round may suggest even older origins. The historic core of settlement at Shortlanesend itself is post medieval in origin (first documented in 1678) although the excavated round (MCO8478) to the southwest further indicates later prehistoric settlement in the near vicinity. The pattern of local enclosure potentially reflects boundary and land organisation dating back to the medieval period; as mentioned above, there is clear evidence for preserved medieval strip field boundaries that were formerly part of an area of open field at Idless to the southeast, around 750m distant, and at least some of the extant field boundaries at Carvinack may respect medieval field enclosure.

The 1840's Tithe Map and apportionment for Kenwyn (Fig 5) show that the two fields at Carvinack were in their current form by the early to mid-19th century although the results of the geophysical survey (Fry and Roseveare 2014) indicate the remains of former field boundaries that suggest these fields may originally have been further subdivided. Carvinack is recorded in the Kenwyn Tithe apportionment as 'Garvinack'. The northernmost field is recorded as Plot 2116, 'Snows Close' and the southernmost field as Plot 2104, 'Outer Barrow Close' (see Fig 5). The landowner of both fields is recorded as The Earl of Falmouth and they were leased and occupied by William Powell. The road to the west of Carvinack, now Ashley Road, may once have been a droveway for taking stock to pasture onto the higher ground of Allet Downs; the original lane may have been funnel-shaped where it led out on to the higher ground and the 1840's Tithe map shows the road leading up to larger enclosures characterised by straighter field boundaries and where typical names such as 'croft' and 'moor', indicate areas of post medieval secondary enclosure (roughly post 1750 AD). Between the historic upland ground and Carvinack are small straight-sided plots that may also reflect the late or post medieval intake of land along the edges of the higher ground.

Settlement at Shortlanesend and Carvinack remained relatively compact well into the 20th century when a spread of development occurred to the west of the main road. Shortlanesend now serves as a small satellite village to Truro but Carvinack largely retains its historic form, nested within a pattern of enclosed fields and traditional Cornish hedges that probably date, at least in part, from the medieval period or earlier.

6 Summary results of geophysical survey

The geophysical survey was undertaken by Archaeophysica Ltd and the report containing the processed results were received by Cornwall Archaeological Unit on 30th July 2014.

Note; the interpretation of magnetic anomalies identified by the geophysical survey has been extracted from the principal geophysical report (Fry and Roseveare 2014). Figures in square brackets relate to features shown on the interpreted geophysical survey map (Fig 25).

The magnetometer survey was carried out under good conditions and the magnetic contrast across the site was found to be suitable for the detection of features of potential archaeological interest. A considerable number of potential features were identified, the majority of which were concentrated within the northernmost field. These features are listed as follows:

Northern Field:

• Earlier Land Use

[1]; [2]; [3] – These features are identified as double-ditched former stone and earth field boundaries that are typical of traditional Cornish Hedge boundaries. Feature [3] is probably a continuation of an extant field boundary to the east of the project area (see Fig 25). Neither of features [1] or [2] are shown on the 1840's Tithe map or 19^{th} century and later OS mapping, which indicates they went out of use prior to the mid- 19^{th} century.

- [6] and [7] Two localised areas with evidence of past cultivation that appear to align with and be contained within fields defined by features [1] and [2]. These features also align with some of the surrounding extant field boundaries, although not all. The cultivation (plough) marks possibly reflect medieval ridge and furrow, which would imply that some of the extant field boundaries within and surrounding the project area formed part of the earliest enclosure of medieval farmland at Carvinack Farm.
- [9] and [10] These linear magnetic anomalies probably represent modern services such as underground pipes or cables. A weaker fourth anomaly [29] may also be a modern service or field drain.

Archaeology

- [12] and [13] A series of linear and slightly curvilinear features that are probably ditches relating to a later prehistoric field system (i.e. Bronze Age, Iron Age or possibly Romano-British in date); two additional linear features [14] and [16] may also belong to this system. A small circular feature [27] about 5m in diameter is situated in the corner of two field boundaries shown at [12] and may be contemporary with these; [27] appears to be a ringed ditched feature, perhaps representing the imprint of a small roundhouse. The field system is generally on a different alignment to the current pattern of enclosure, suggesting that there may have been a phase, or phases, of discontinuity in the land use of this area between the late prehistoric and medieval periods. This is typical of agricultural land bordering the threshold of higher ground, where land taken in as arable periodically saw expansion onto, or contraction from, the higher ground as pressure for land increased or decreased accordingly.
- [15] A substantial rectilinear enclosure, probably ditched, measuring roughly 42m across its north to south axis the eastern is truncated by the current eastern boundary of the northernmost field and appears to extend beneath it. The enclosure [15] has all the hallmarks of a later prehistoric or Romano-British enclosure. A linear feature [4] and [5] may represent a trackway or former field boundary that respects [15] along its southern edge.

Note; the results of the magnetic survey appear to suggest that enclosure [15] overlies the former Cornish hedge boundaries [1] and [3] but this may be misleading. As a general note, there is clearly a considerable time-depth of archaeology on the site but the precise chronology and relationship of identified features is unknown and will require further field evaluation via targeted trenching and recording.

- [17] A substantial circular feature in the north of the project area that may represent a large (20m diameter approximately) ditched enclosure of later prehistoric date (i.e. Bronze or Iron Age) with a probable entrance and/or causeway to the north. A smaller centrally-placed circular ditched feature set within the larger enclosure (8m diameter approximately) may represent the imprint of a gullied roundhouse. Alternatively this feature may represent a large Bronze Age mortuary barrow.
- Note; [17] is a particularly unusual feature and an exciting discovery. Its precise form, date and function is unknown but the clarity of the geophysical survey suggests that its sub-surface preservation will be very good. Further field evaluation of these would therefore be expected to be highly productive and beneficial.
- [18] [25] A concentration of smaller circular and square features [18] [22] is located within the central section of the northernmost field to the south of feature [17]. These vary between 10 and 15m in diameter and may represent the location of roundhouses of later prehistoric date (i.e. Bronze and/or Iron Age), perhaps part of an open (i.e. not within an enclosure) settlement. The proximity of [18] and [19] to [17] may be pertinent and this grouping could alternatively represent part of a linear barrow cemetery; features [24] and [25] may also be part of this grouping, although these are less well defined. Feature [23] is also poorly defined but may also be associated with this wider concentration of features.

[28] - An area of textual variation in the southeast corner of the northernmost field is of potential architectural interest although its interpretation is uncertain.

Southern Field:

Earlier Land Use

[11] – A series of linear and curvilinear features that are likely to represent part of a later prehistoric field system, probably a continuation of [12] and [13] in the northern field. A particularly distinct curving boundary (approximately 75m in length) in the centre of the field is of interest and could represent part of a large enclosure boundary rather than a field boundary. Its proximity to Carvinack Farm may be pertinent and may be associated with a later prehistoric round. Further evaluation of this feature is required to assess its form, date and function and its relationship, if any, to the surrounding later prehistoric landscape.

[8] – A substantial linear feature that extends across the southernmost field from southwest to northeast is probably a modern service trench.

7 Significance

The desk based assessment has shown that the project area at Carvinack lies within an area of Anciently Enclosed Land (AEL); land that would also traditionally have been the agricultural heartland of Cornwall from later prehistory onwards. It has been shown that areas with this historic landscape character typically contain a substantial time-depth of archaeological remains. The proximity of land at Carvinack to the edges of the higher ground also makes it historically an area of transition, where settlement and land use saw periods of shift and discontinuity concomitant with changes in population densities and pressures on good available arable land and pasture. Within the vicinity of Carvinack Farm there is already evidence, both documentary and physical, for ritual burial monuments and ceremonial landscapes of typically Early Bronze Age date and the more settled farming landscape that followed, characterised by the roundhouses, enclosed settlements (rounds) and field systems of later prehistory (typically ranging in date anywhere from the Middle Bronze Age into the early post-Roman period).

The significance of the geophysical results demonstrated at Carvinack is the complexity, variety and time-depth of potentially well-preserved sub-surface remains. These have the potential to shed light on changes within a wider monumental and settled landscape across a large timespan in prehistory. There is the potential at Carvinack for a large Bronze Age barrow cemetery to have been superseded by late prehistoric to Romano-British settlement associated with a substantial field system. More unusual would be the co-existence of burial sites and roundhouses at the same location.

Alternatively the identified archaeological features may wholly be evidence for an extensive later prehistoric farming settlement that comprises roundhouses and enclosures of various form and size. This in itself may reflect several phases of settlement and a long chronology of land use that was potentially quite fluid in nature.

The physical juxtaposition of at least one potential barrow with a late prehistoric roundhouse settlement would be of significant interest, if this was to be shown. As discussed above, Carvinack is situated close to the edges of higher ground and this area was probably historically a transitional space. If a late prehistoric farming settlement is shown to superimpose upon a formerly monumental landscape this would be direct evidence for this and the manner of changing land use in areas on the threshold between rich farmland and higher upland ground. Further field evaluation of the area would provide a rare and beneficial opportunity to explore the nature and chronology of such a significant relationship.

The difference in alignments between the later prehistoric field system and some elements of the current pattern of enclosure suggests that occupation and land use here between the late prehistoric and medieval periods may have continued to

experience phases of discontinuity or partial discontinuity. Understanding the chronology of settlement and land use on the threshold between ancient agricultural heartland and areas of higher ground from late prehistory onwards remains an area of continuing research and the opportunity to investigate this further would be widely beneficial to our current picture of landscape histories in the Cornish lowlands.

There is also some evidence suggested by the geophysical survey for archaeological features associated with medieval and post medieval cultivation and enclosure. Evaluating these features would contribute to the understanding of agricultural time depth, changes in land use and the pattern of historic enclosure within the ancient agricultural heartland of Cornwall.

8 Recommendations

The geophysical survey has clearly identified a considerable number of major magnetic anomalies that are likely to represent well-preserved buried archaeological features of regional and national significance (see Figs 24 and 25). There is a real opportunity presented by such clear results to explore the potential nature and relationships of these features and the time-depth that is substantially demonstrated. The context of these results in relation to the wider monumental and settlement landscapes of later prehistory through to the Romano-British period requires careful assessment and future field evaluation in order to determine precise relationships of chronology, form and scale. Equally, the potential relationship of the late prehistoric landscape to the subsequent pattern of medieval and post medieval settlement and land use in a transitional area close to the edges of higher ground is an area of continuing research on a regional and national scale.

On the basis of the geophysical survey and the results of the desk based assessment a programme of archaeological evaluation and recording ahead of any construction works is recommended. This should include targeted evaluation trenching, controlled topsoil stripping over identified sites and the excavation and recording of significant features.

9 References

9.1 Primary sources

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9.2 Publications

Bristow, C., 1996. *Cornwall's Geology and Scenery*. St Austell, Cornish Hillside Publications

Fry, R. & Roseveare, M.J. 2014. *Carvinack Farm, Shortlanesend, Cornwall*. Geophysical Survey Report Produced for Cornwall Archaeological Unit. Project Code CSC141. Archaeophysica Ltd

9.3 Websites

http://www.heritagegateway.org.uk/gateway/ English Heritage's online database of Sites and Monuments Records, and Listed Buildings

10 Project archive

The CAU project number is 146369

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY.

English Heritage/ADS OASIS online reference: cornwall2-186910

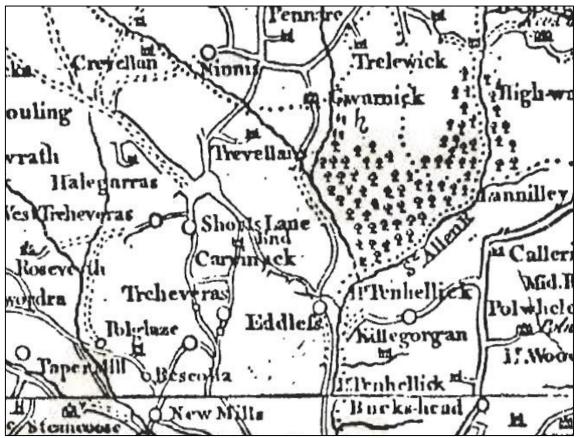


Fig 3 Shortlanesend and Carvinack as shown on Martyn's map of 1748

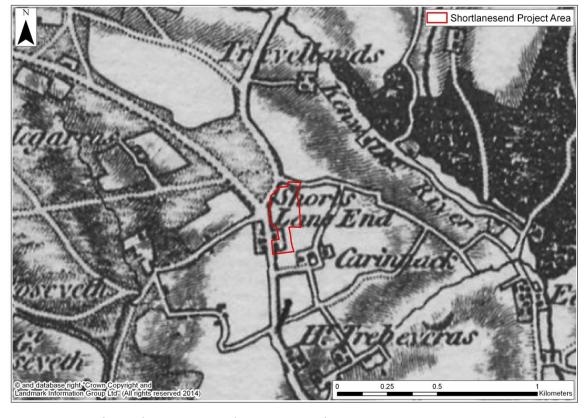


Fig 4 Extract from the OS First Edition One Inch Map, c1809

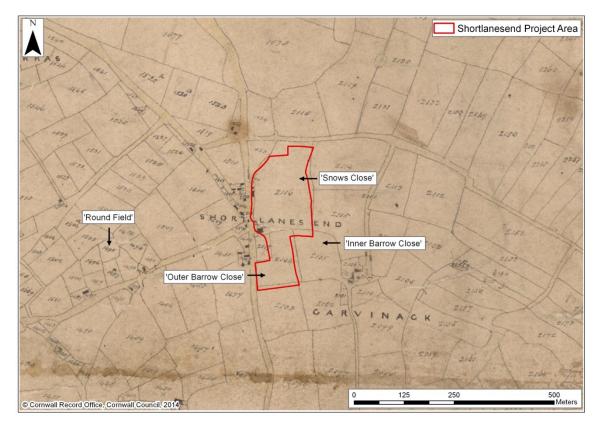


Fig 5 Tithe Map, c1840

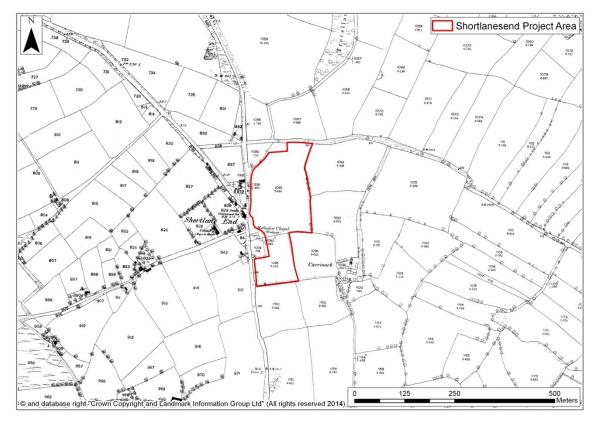


Fig 6 First Edition of the Ordnance Survey 25 Inch Map, c1880

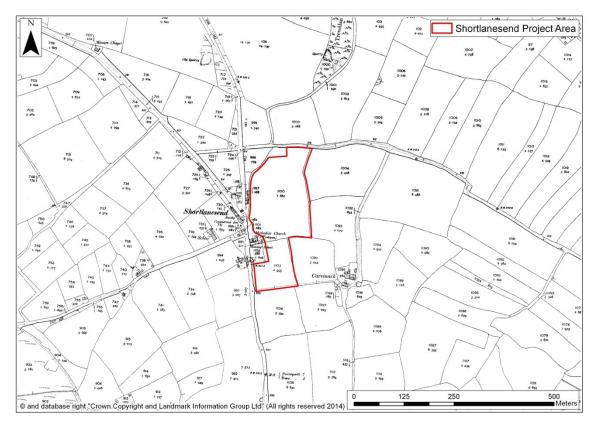


Fig 7 Second Edition of the Ordnance Survey 25 Inch Map, c1907

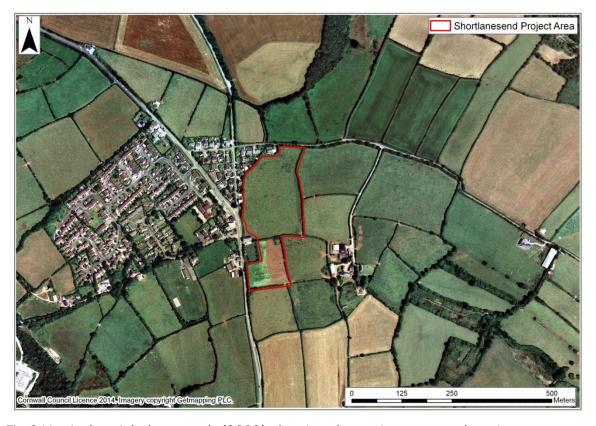


Fig 8 Vertical aerial photograph (2000) showing the project area and environs



Fig 9 Vertical aerial photograph (2005) showing the project area and environs

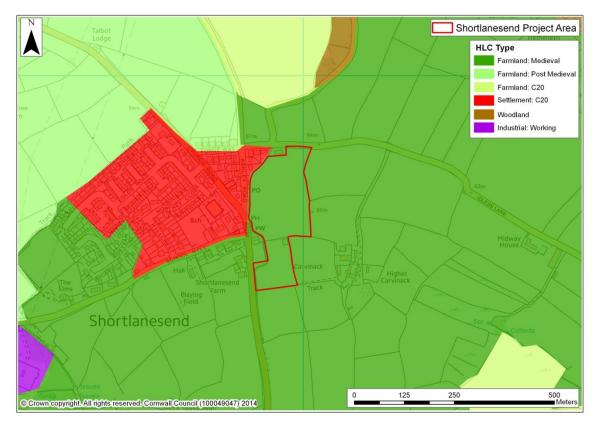


Fig 10 Historic Landscape Characterisation (HLC) types associated with the project area

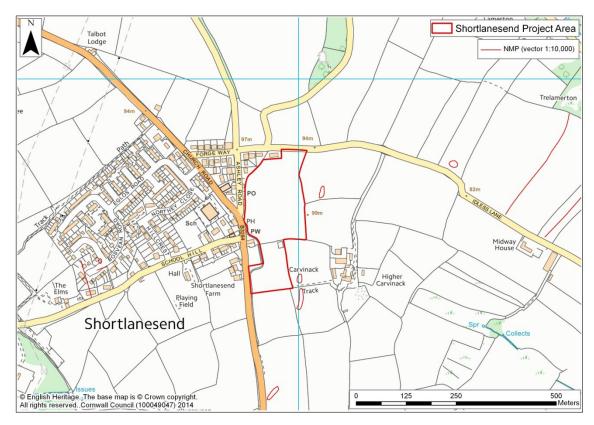


Fig 11 National Mapping Programme (NMP) vectors in the vicinity of the project area

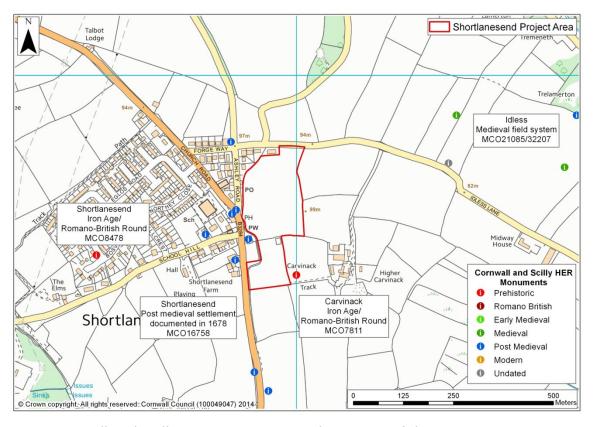


Fig 12 Cornwall and Scilly HER Monuments in the vicinity of the project area



Fig 13 Looking southwest across the northernmost field towards Ashley Road



Fig 14 Looking south southwest across the project area towards the Methodist Chapel, Shortlanesend



Fig 15 Looking south across the northernmost field towards Carvinack



Fig 16 Looking northeast across the northernmost field from the western boundary



Fig 17 Looking south towards the Methodist Chapel from within the project area, midway along its western boundary



Fig 18 Looking north along the western boundary of the northernmost field



Fig 19 Looking northeast across the project area from the Benwyn Way, to the rear of the Methodist Chapel



Fig 20 Looking northwest across the northernmost field from the Benwyn Way



Fig 21 Looking east across the southernmost field towards Carvinack Farm



Fig 22 Looking southeast across the southernmost field from the Benwyn Way



Fig 23 Looking south across the southernmost field from the Benwyn Way



Fig 24 The magnetometry survey data (2014) for the project area (Source: Fry and Roseveare 2014).

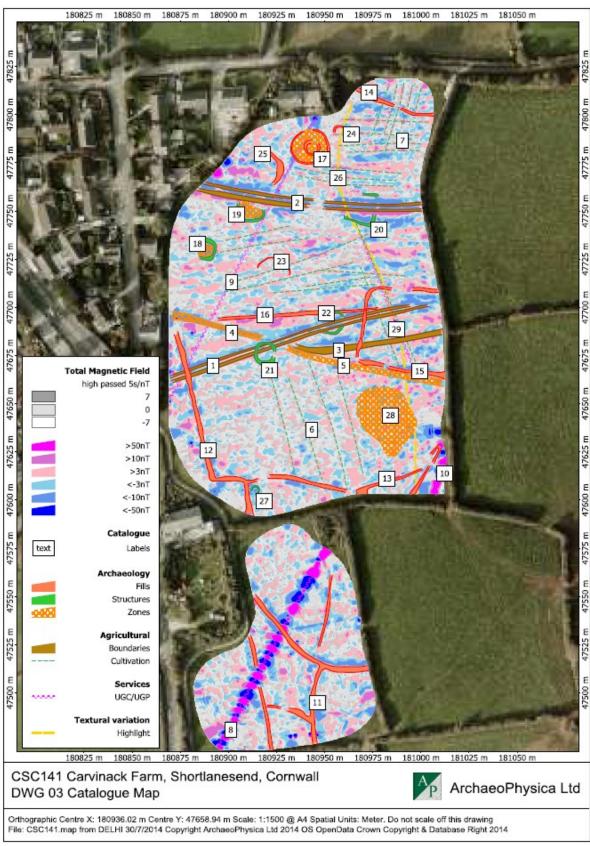


Fig 25 The interpreted magnetometry survey data (2014) for the project area (Source: Fry and Roseveare 2014).

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