

TRERYN DINAS CLIFF CASTLE
ARCHAEOLOGICAL SURVEY
Scheduled Monument 1006733

PROJECT REPORT

By Hazel Riley



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ABBREVIATIONS

AONB Area of Outstanding Natural Beauty

CAU Cornwall Archaeological Unit

EH English Heritage

GPS Global Positioning System

HE Historic England (formerly English Heritage)

HER Historic Environment Record

NE Natural England

NMR National Monuments Record

NT National Trust

NVC National Vegetation Classification

OD Ordnance Datum

OS Ordnance Survey

RCHME Royal Commission on the Historical Monuments of England

RICS Royal Institution of Chartered Surveyors

SM Scheduled Monument

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ABSTRACT

A large scale survey of Treryn Dinas, a cliff castle or promontory fort on the Cornish coast, west of Penzance, was undertaken following scrub clearance of part of the interior. The survey has recorded elements of the middle ramparts and a possible pre-enclosure landscape for the first time, and. Finds of Mesolithic and Neolithic flint tools from Treen Cliff, and Bronze Age and Iron Age pottery from the Logan Rock, attest to its importance as a special place in the landscape in prehistory.

INTRODUCTION

This survey of Treryn Dinas was undertaken on behalf of the National Trust, Historic England and Natural England, following clearance of scrub across part of the ramparts and interior of the site, and concern about erosion caused by ponies at the southern tip of the site. The principal aims of the survey were to record the archaeological features revealed following this clearance, record the areas of erosion at the inner ramparts, and to provide a tool to guide further scrub clearance, future management and monitoring of the site (Project Brief 2015).

Administrative and designation information

NGR: SW 3978 2226

Parish: St Levan

District: Penzance

County: Cornwall

Cornwall HER: 28291

Designated status: Scheduled Monument 1006733 Promontory fort known as Treryn Dinas (list.historicengland.org.uk)

Other designations: part of Treen Cliff SSSI Maritime heath (designatedsites.naturalengland.org.uk)

Part of Cornwall AONB: Unit 7 West Penwith (cornwallaonb.org.uk)



Fig 1 Location map

Location, topography and geology

Treryn Dinas lies on the coast of Cornwall, in West Penwith, SE of Lands End and SW of Penzance, between Porthcurno and Penberth (Fig 1). It occupies a significant promontory reaching south into the Atlantic, opposing Pedn-men-mere to the west and enclosing several sheltered coves including Porth Curno. The promontory slopes to the south from the enclosed fields south of the village of Treen at some 60m OD to the stunning granite outcrops on the southern tip which are some 20-30m OD. The Logan Stone, a well known rocking stone, tops one of these outcrops (Fig 2; Front cover and Frontispiece).

The peninsula is part of the Land's End Intrusion of granite, igneous bedrock formed some 251 to 359 million years ago in the Permian and Carboniferous periods ([bgs.ac.uk](https://www.bgs.ac.uk)).

The vegetation on the site is a mix of maritime heath, maritime grassland with blackthorn, bramble, gorse and bracken scrub; a small herd of Dartmoor ponies graze the cliffs (Frontispiece). The visibility of some of the archaeological features is affected by the scrub and this is detailed below.

HISTORICAL BACKGROUND

Treryn Dinas is known as a site of antiquity in the late medieval period: Leland in c 1538 mentions 'Tredine Castel ruines at the south west point of Penwith', identified as Treryn Dinas by Crofts (*The Itinerary of John Leland Part III* 189; Crofts 1948, 1). Gascoyne's 17th-century *Map of Cornwall* clearly shows the promontory and names it 'Castle Trereen' (Gascoyne 1699) (Fig 3). In *Antiquities Historical and Monumental of the County of Cornwall*, William Borlase describes Treryn Dinas and the 'New Map of Cornwall' accompanying this volume marks 'Treryn Cast' (Fig 4). Borlase recognises Cliff castles as a distinct class of hillfort and places Treryn Dinas in this category:

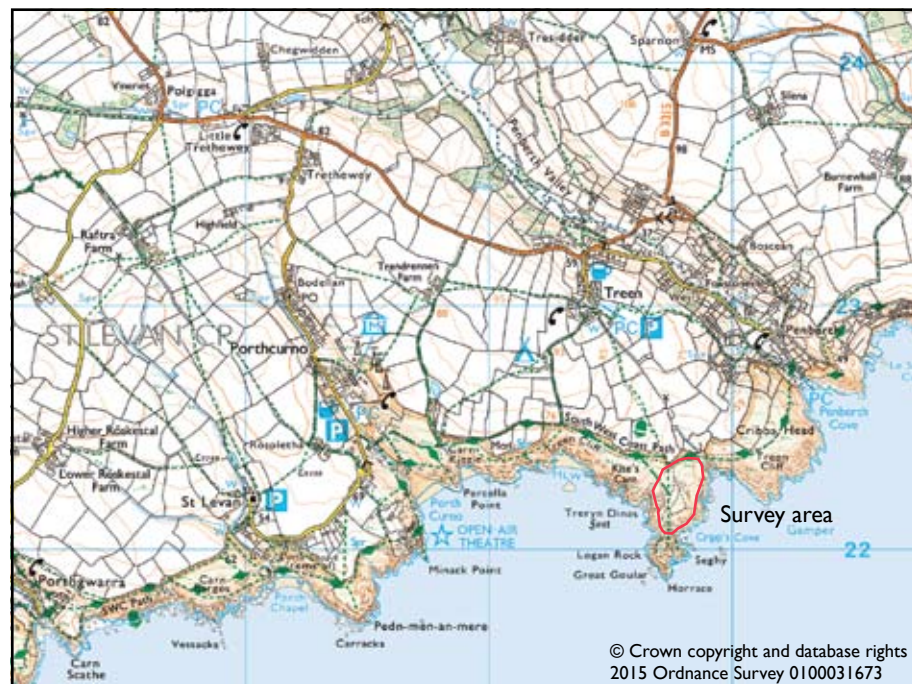


Fig 2 Survey location and topography

This Cape shoots forth into the Sea, bearing directly South; its farthermost Ridge consists of three lofty groups of Rock, to the North of which is a low and narrow neck of Land, cross which there runs from the East to the Western Cliff, a Stone Wall marked A; the ground then rises pretty quick, and on the brow of the hill there is a Vallum of Earth B, and a ditch without it towards the sea land, but none within next to the sea. This Vallum runs also nearly East and West, reaching from sea to sea; and without it towards the land there is another Vallum of earth C, of like direction, but lower in point of situation, inclosing in like manner a greater portion of this promontory. To the East of this promontory there is a very commodious Creek called Penberth; and to the West there are many landing places, which will give us some light hereafter into the occasion of this and such like Castles
(Borlase 1769, 344).

The letters A-C refer to an engraving (reproduced here as Figure 5), which shows the three main elements of Treryn Dinas and how they use the natural features of the promontory. The engraving also shows one of other features described by Borlase - a stone circle. He observed 'one of the Danish vallums B, cutting one of the Druid holy circles and passing quite through it' (1769, 351). Polwhele refers to Borlase's description of Treryn Dinas (1803, 113).



Fig 3 (above left) 'Castle Trereen' shown on Gascoyne's 17th-century map (Gascoyne 1699)

Fig 4 (above) 'Treryn Cast' named on Borlase's 18th-century map of Cornwall (Borlase 1769)



Figure 5 (left) 'Western View of Castle Treryn' (Borlase 1769, plate XXVI, 297)

William Bottrell tells of a visit to Treen by a Breton gentleman whose family were said to have had a castle there. His guide pointed out:

'the outer wall [of the castle] through a breach where it is levelled and the ditch filled in to make a road . . . The outer mound [bank] is a little short of half a mile long. Hundreds of cartloads of stones have been carried away from the walls for building houses and hedges. Yet on Karkeis side, where it isn't easily reached, some of it is still pretty perfect; except, indeed, where our youngsters have bowled stones over cliff for their Sunday afternoon's sport.'

(Bottrell 1873, 128)

'A descendant of the old proprietors of Treen informed me that a great quantity of stones remained, in piles, within and near the embankment, until after wheel carriages came into use. Although this part of the cliff was then common few persons cared to remove them, and none durst take a stone from the castle walls for fear Bad Luck would pursue any one who disturbed the giant's work. But of late years, great portions of this ancient rampart have been demolished and the facing-stones carried away for building.'

(Bottrell 1873, 137)

' the outer wall of Castle Treen was built by a deaf-and-dumb giant, called Dan Dynas, or, as some say, Den-an-Dynas, assisted by his wife An' (aunt) Venna, who broke up the ditch, filled her leathern towser (large apron) with the soil and put it for filling behind the rocks, as her husband rolled them into their places. . . the giantess and other women collected hundreds of cartloads of stones into heaps, near the mound, ready and handy for slinging at, or to hurl down on the heads of besiegers. . . . The ruins of this good couple's handiwork may still be traced from Par Pry, on the southern side, to the inlet of Gamper, or Hal-dynas Cove, towards the east.'

(Bottrell 1873, 137)

Undated and unattributed manuscript material at the Morrab Library, Penzance, mentions the site of a cist at Treryn Dinas (Cornwall and Scilly HER 26971).



Treen Cliff was common land in the 19th-century; it was brought into National Trust ownership in 1933 (Ratcliffe 1998, 1). Treryn Dinas was designated a Scheduled Ancient Monument in 1958 (HE List Entry Number 1006733).

Fig 9 The Logan Rock (RT Pentreath c 1860) (Graham 1969, 59)

PREVIOUS ARCHAEOLOGICAL WORK

Treryn Dinas was surveyed in 1875 for the 1st edition OS map published in 1878 (Fig 10) and this formed the basis for subsequent depictions such as the plan published in the Victoria County History of Cornwall (Cornish 1906, 455). These surveys mark 'Ditches' at the northern element and a 'Gateway' and 'Watch Houses' at the inner elements (Fig 10). The Ordnance Survey re-surveyed the site at 1:2500 scale in 1960 and this was revised in 1986 when it was noted that survey 'is virtually impossible in its current state with a deep covering of bramble, gorse and bracken, and dense thorn concealing part of the outer rampart' (NMR SW32SE 46) (Fig 11). The CAU also made some revisions to the OS plan in 1977 (Herring 1994a, 5, Appendix 1).

Michael Tangye collected surface finds of worked flints near the site of the coastguard lookout and in the 1980s Alastair Oswald collected flint from eroded surfaces within Treryn Dinas, including four primary flakes with smooth cortex, two small pyramidal cores, 12 blades and blade fragments, seven small bladelets. Five sherds of post medieval pottery were also collected. The lithic material is dated to the Mesolithic and Neolithic

Fig 10 (below) Extract from the OS 1st edition map, 1878 (Cornwall 78 NE & SE nls.uk)

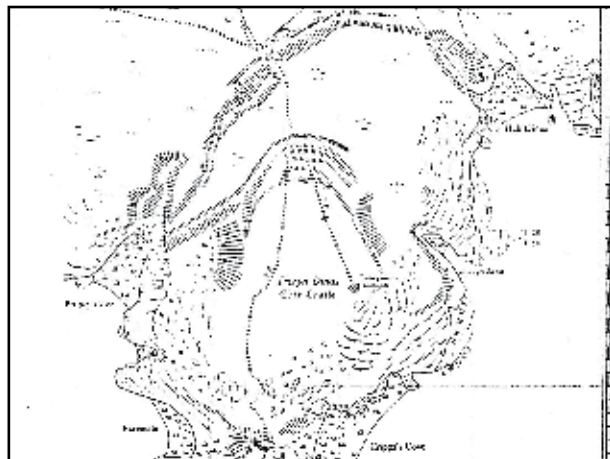


Fig 11 (left) Ordnance Survey plan of Treryn Dinas 1960 and 1986 (NMR SW32SE 46 record card)



periods. Lithic material was also recorded from Treryn Dinas in the 19th century but their location now is unknown (Cornwall and Scilly HER 62829). Michael Tangye also recorded 'a fine [prehistoric] rubbing stone, found in 1974, protruding from the topsoil of a narrow footpath to the Logan Rock, in a fissure in the granite' (Cornwall and Scilly HER 1643). Two thumbnail scrapers were found at Treryn Dinas on 17th October 2006 (e-mail correspondence National Trust and English Heritage).

There are also records of several Neolithic flint tools from Treen Cliff. These include some 40 round or long planes (possibly scrapers), some beautifully marked, a number of used and unused flakes, a leaf-shaped arrowhead, and two small conical cores reported in 1921. A flint axe, modified into a scraper, was recognised in this collection in 1932 (Marsden 1921; Hencken 1932, 301).

In the early 1990s the National Trust, EH and the CAU became concerned about erosion caused by a path across the inner defences. A scheme was put in place to close the path, repair the damage and create a new path away from the sensitive archaeological remains. A detailed plan of the inner rampart was made before this work was carried out, and elevations of the north face of the western part of the rampart and the west side of the entrance passage were drawn (Herring 1994a, figs 3-5).

In 1992, on the western side of the promontory between the inner defences and the Logan Rock, Adam Sharpe and Jacky Nowakowski located the 'sites of at least two small houses – one a true hut circle defined by stone facing in which could be seen a well-made entrance way, the second a levelled stance cut into the cliff edge.' An Iron Age rim sherd had eroded out of the path below the southernmost of these sites and in a gully leading towards the Logan Rock another sherd of Iron Age pottery, a large piece of a plain Bronze Age bucket-shaped funerary urn and fragments of cremated bone and charcoal were found (Sharpe 1992, 66).

Leland (c 1540) mentions a Roman coin hoard found at Tredine Castle - probably Treryn Dinas; a 4th-century AD Roman coin was found near the Logan Rock by Adam Sharpe in 1991 (Penhallurick 2009, 224-5). A Roman copper alloy 'headstud' brooch was found by Matthew Whiting on or close to the path near the Logan Rock in 2006. A similar brooch from Trethurgy Round is dated from the 1st to the 2nd century AD (Cornwall and Scilly HER 51881; Quinnell 2004, fig 46 no 2). The finds from Treryn Dinas and its environs, where possible from the information contained in the Cornwall and Scilly HER, are plotted on Figure 12 (approximate locations).

Treryn Castle and the Logan Rock were included in the archaeological assessment of the National Trust's property on Treen and Rospletha Cliffs, Penberth Valley and Cove (Ratcliffe 1998).

THE SURVEY

The fieldwork was carried out in April 2015, following clearance of scrub across the area between the northern and middle ramparts by the National Trust. All of the accessible extant archaeological features associated with these ramparts were surveyed at a scale of 1:500 using survey grade GPS. Two profiles were surveyed

across representative sections of the middle and northern ramparts. The inner rampart, building remains and the extent of erosion caused by the grazing ponies in this sheltered area were surveyed at a scale of 1:250 using survey grade GPS. The hut circles near Logan Rock were located with navigational (hand held) GPS.

The GPS-derived geodetic WGS84 coordinates were transformed to the Ordnance Survey National Grid (OSGB36) using the Ordnance Survey's grid transformation (OSTN02) in Leica's GPS post-processing software. Observation times were based on those recommended by the OS and the RICS in order to obtain accurate heighting information (OS 2010; RICS 2010).

Figure 12 shows the archaeological features on the whole promontory. The limit of scrub clearance is also shown, and the inaccessible parts of the middle and northern ramparts, shown in red, are transcribed from the Ordnance Survey Archaeology Division 1986 plan. Figure 27 shows the 1:500 plan of the inner and northern ramparts and the profiles surveyed across these ramparts.

The vegetation survey

National Trust staff carried out a survey of the area for the Treen Cliff SSSI designation, mapping vegetation units according to the NVC (Rodwell 1991; 2006). Lindsey Butterfield, Dr Nigel Haward and Jane Haward undertook a botanical survey on Treryn Dinas in July and October 2014. The 2014 surveys covered the central areas on Treryn Dinas to establish the status of the maritime heath and to assess the effect of the grazing that was already taking place at this time (information from Lindsey Butterfield). The map showing the NVC vegetation units for the Treryn Dinas has been digitised as part of this project, in order to help with the management of the vegetation in relation to the archaeological elements of the SM (Fig 13 and below: Management and Recommendations). The digital drawing is organised in layers which correspond to the vegetation units and a key is given on Figure 13 for ease of reference.

Archive arrangements

A CD containing the archive photographs, CAD versions of the survey plans and copies of this report in digital format has been deposited with the Cornwall HER.

DESCRIPTION AND INTERPRETATION OF THE ARCHAEOLOGICAL FEATURES

The promontory is divided into three by three man-made structures - the inner, middle and northern ramparts - but the whole is dominated by the granite outcrop at its southern tip (Front cover; Fig 12). The inner ramparts run cut off the entire southern tip of the promontory, emphasising the special nature of this space which contains the Logan Rock. The middle ramparts are complex and have been disturbed by robbing but they probably represent the remains of an enclosure which dominated the centre of the promontory from the Neolithic period onwards. The northern ramparts cut off the whole of the promontory and form an outer enclosure which takes in most of the remaining level ground on the promontory and is probably later in date than the central enclosure.

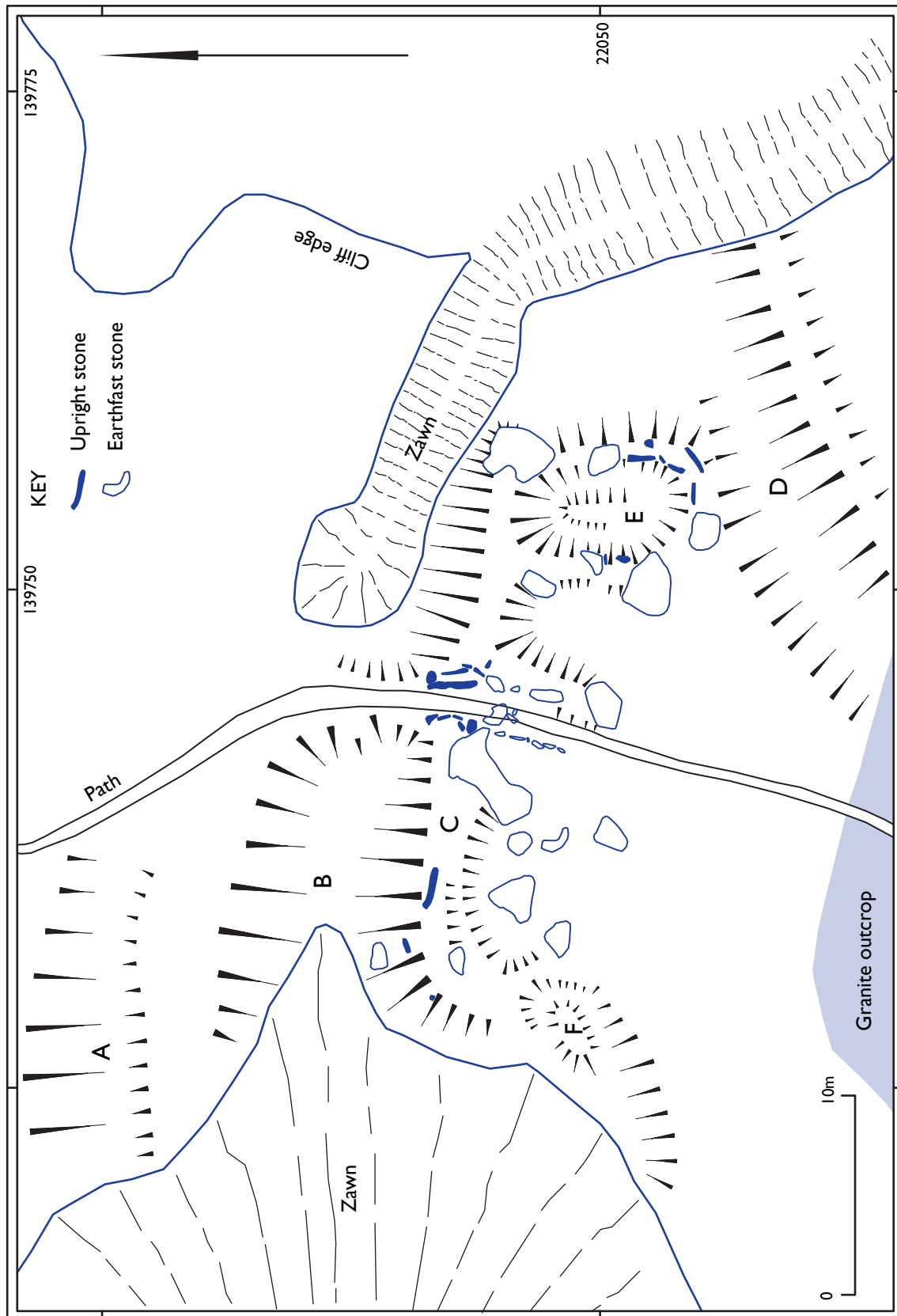


Fig 14 Plan of the inner rampart, ditches and building remains

The features described below are given the letters A-Z and the numbers 1-3. These are marked on Figure 12 [1-3]; Figure 14 [A-F] and Figure 27 [G-Y].

The inner ramparts

The granite outcrop on the southern tip of Treryn Dinas is virtually cut off from the rest of the land mass by two zawns - deep and narrow erosion gullies in the sea cliffs - to the west and east. Access to the granite outcrop is by a narrow path, only 2m wide, between the heads of the two zawns, then through the massive rampart built across the northern end of a gently sloping area in front of the granite mass. Two ditches (A and B) constructed in front of the rampart emphasise the effect of the zawns, adding to the impression that the visitor is entering a separate or special space (Figs 14 and 15).

The rampart (C) is a substantial structure, constructed of earth and granite, and faced on the northern side with granite blocks (Fig 16). It is 30m long, 6m wide and 1-2m high on the outer (north) face. This encloses a space 15m NS by 35m EW which is sheltered by, and dominated by, the granite outcrop to the south. The west and east sides are bounded by the cliff edge. A ditch (D), 14m long, 2m wide and 0.8m deep, with a bank 2m wide and 0.7m high on its NE side, runs from the base of the granite outcrop NW/SE to the cliff edge (Front cover, Fig 17). This feature could be a natural hollow, caused by the underlying trend of the bedrock, and earth fast boulders lie on its NW side, but it does serve to enclose the east side of this area.



Fig 15 (above right) The outer ditch running into the zawn on the NW side of the inner rampart (Hazel Riley)



Fig 16 (right) The outer face of the west end of the inner rampart (Hazel Riley)



Fig 17 (above left) The ditch and bank on the SE side of the inner rampart (Hazel Riley)

The buildings south of the inner rampart

The remains of two buildings lie to the south of the inner ramparts. The SE building (E) is ovoid in shape, oriented NS, lies 10m from the present day cliff edge and is 11m long and 8m wide. It is defined by stony walls, 2m wide and 1m high, incorporating several earth fast granite boulders (Fig 19). The inner face of the rampart is used for the north wall of the structure. A small oval mound occupies most of the interior. The SW building (F) lies on the edge of the cliff at the SW end of the inner rampart. It is ovoid in shape, 8m long, 5m wide and is defined by a stony bank to the east, a scarp to the south, while the rest of the structure has been removed by erosion of the cliff edge. A small oval mound lies in the centre of the structure (Fig 20). These structures are depicted as earthworks rather than buildings on the OS 1st edition maps and are named as 'Watch Houses', showing that they were ruinous at the end of the 19th century and that they were probably considered to be part of the prehistoric elements of the site. The morphology of the remains and the context of these structures in the wider historic landscape of Treen Cliff and West Penwith suggests that they represent the remains of two huer's huts. Some 500m to the east of Treryn Dinas is Cribba Head, overlooking Penberth Cove. Here the remains of a small structure, is known locally as a huer's hut, associated with the fishing industry in the cove, where lookouts spent many hours watching the seas for the approach of the pilchard shoals (Tangye 1994). Treryn Dinas is an obvious site for such structures: high above Porthcurno Cove with extensive views along the coastline to the west and east. The structures may have been open to the elements, as many of the pilots' look-outs on Scilly were, for example.



Fig 18 (above) The entrance passage through the inner rampart (Hazel Riley)



Fig 19 (above left) The remains of the building SE of the inner rampart (Hazel Riley)

Fig 20 (left) The remains of the building SW of the inner rampart (Hazel Riley)

Another possibility is that the low walls supported an upturned boat as the roof, as suggested for the hut on Cribba Head by Michael Tangye, who notes that a small stone bait house in Penberth Cove had an upturned boat for a roof, as did a smoke-house at Porthgwarra, west of Porthcurno and Treryn Dinas (Tangye 1994, 186).

The southern promontory and the Logan Rock

A hut circle [1] and a platform [2] discovered by Adam Sharpe in 1992 (above) lie to the west of the Logan Rock at SW 39683 2004 and SW 39683 1983. The hut circle is some 3m in diameter, with earth fast granite blocks forming the entrance which faces west to the sea. The platform is c 7m diameter and makes use of several granite outcrops (Figs 21, 22). A similar feature [3] lies on the east side of the Logan Rock (Fig 23). These are small structures, built close to the cliff edge, and make sense as places to be, amongst the dramatic natural landforms and close to the sea, rather than as places to live, either permanently or seasonally. They are presumably prehistoric in origin, but the structures may also have been used as lookouts or shelters in the historic period, like the huer's huts by the inner rampart.

The concentration of these prehistoric hut platforms and the wide date range of the artefacts found clustered around the Logan Rock emphasise the importance of this natural landform throughout prehistory and into the historic period (Fig 12),



Fig 21 (above right) A hut platform on the cliff edge, SW of the Logan Rock (Hazel Riley)



Fig 22 (right) A possible hut circle west of the Logan Rock (Hazel Riley)



Fig 23 (above) A possible hut platform east of the Logan Rock (Hazel Riley)

In 1822 a naval lieutenant, H C Goldsmith, dislodged the Logan Rock after hearing an old tale that no human power could move it. By this time the Logan Rock had become a popular visitor attraction and the outcry that this provoked meant that Goldsmith had to organise the re-erection of the rock at his own expense. He duly did this, with the help of his naval colleagues. The operation involved erecting scaffolding around the outcrop which is topped by the Logan Rock and some of the holes drilled in the granite to support the scaffolding can still be seen (Fig 24). (Ratcliffe 1998, 1).

The Coastguard look-out

There were two Coastguard stations in the parish of St Levan. The larger, constant watch station was at Tol-Pedn, where a look-out was kept 24 hours a day throughout the year. The smaller station was at Treen, where the look-out building was on the promontory between the inner rampart and the middle rampart (St Levan Local History Group 2004, 104-107). A platform, 7m NW/SE and 0.5m high, with an emergency telephone point marks the site of the station (Figs 12 and 25), which was demolished sometime after 1974 when the Treen Coastguard Station was closed. In the 1950s, the Coastguard look-out building was a solid, block structure with a flat roof and windows with wooden shutters surrounded by an iron rail (Fig 26).



Fig 24 (left) Holes drilled for scaffolding when the Logan Rock was re-erected in 1822 (Hazel Riley)

Fig 25 (above left) The site of the Treen Coastguard look-out (Hazel Riley)

Fig 26 (above) The Treen Coastguard look-out building in the 1950s (St Levan Local History Group 2004, 106)

The central enclosure

A series of banks and ditches run across the promontory from cliff edge to cliff edge, cutting off about three-quarters of the land mass. Although the ramparts, and in particular the innermost bank, have been disturbed by the removal of material in the historic period, some phasing is evident (Fig 27). A wide, curving bank [G] runs for some 125m, merging with the cliff edges at its SW and SE ends, where it utilises granite outcrops on the cliff edge in a manner reminiscent of Neolithic tor enclosures (Fig 28). The bank is 7-10m wide and up to 1.5m high. The central part of this bank has been disturbed: several small pits and hollows are evident, together with some upright granite slabs, suggesting that this was originally a stone faced bank (Fig 29). This agrees with the evidence outlined above which records large amounts of material being removed from the ramparts prior to the 19th century (above).

Recent work by Graeme Kirkham has highlighted the practice of using material from archaeological sites as a 'manure' or soil improver across Cornwall (Kirkham 2012). The morphology of the central part of the middle ramparts and the documentary evidence at Treryn Dinas show material was taken from the site in the historic period for building field walls and for land improvement.



Fig 28 (left) The inner bank of the central enclosure merges with granite outcrops on the cliff edge (Hazel Riley)



Fig 29 (above left) The inner bank of the central enclosure (1m scale) (Hazel Riley)

The enclosure formed by the inner bank [G], the cliff edges, and the main areas of outcropping granite, is oval in shape and roughly 0.8ha in area. A mosaic of bracken and bramble scrub, gorse and granite outcrops make the identification of any features in the interior difficult, but to the south of the inner bank a small platform [H], formed by a scarp and the inner face of the bank, may be the site of a building. The remaining ramparts are rather different in form to the inner bank, being regularly spaced banks and ditches with much less stone evident. A bank [J], 8m wide and 1.6m high with ditches to the south and north [K & L], lies to the north of the inner rampart. A counterscarp bank [M], 3.5m wide, 0.2m high, with a ditch, [N] 3m wide and 0.2m deep, lies to the NE. The area between the inner rampart and the ditch [K] forms a rather awkward terrace (Fig 30), suggesting that the ditch is a later element. A substantial bank and ditch [O & P] runs from the cliff edge for some 56m to meet the SW side of the inner bank (Fig 31). The junction of these elements suggests that this bank and ditch are some of the latest features of the central enclosure.

Together with the inner bank, these elements form ramparts 44m wide and up to 2m high, which can be seen when approaching the site from the north and west, and were clearly a substantial and impressive feature in the landscape. The removal of material in the historic period makes the identification of the original entrance gap through the middle ramparts difficult. The present day, well-used path, crosses the outer bank, runs on the edge of a well defined ditch terminal and runs over the innermost bank (Figs 29 & 39). On balance, this may be (approximately) the route of the original entrance.



Fig 30 (above left) The outer elements of the middle ramparts (Hazel Riley)



Fig 31 (left) The SW end of the middle rampart runs down the steep coastal slopes (Hazel Riley)

The outer enclosure

A substantial bank with both external and internal ditches cuts off the whole promontory (Fig 32). Together with the ramparts of the central enclosure and the cliff edge, this forms an irregular enclosure some 0.9ha in area.

The northern ramparts take the form of a single bank [Q] which runs SW/NE across the neck of the promontory: a total length of 287m. The bank is up to 5m high and 13m wide. There is a ditch [R] on the northern (outer) side of the bank along the eastern part of the ramparts; to the SW a ditch [S] lies on the southern (inner) face of the rampart. The bank is most impressive at the central part of the site, where an entrance gap [T] takes the path onto the promontory (Fig 33). This entrance is the original entrance to the site, with well formed rampart and ditch terminals.

The interior of the enclosure, now largely clear of scrub, contains a small hollow [U], 3m in diameter and 0.3m deep, with a mound to the SE. This is probably the site of stone extraction. A mound [V], 8m long and 5m wide, with a hollow at its NW end in front of two granite slabs, is probably also a result of stone extraction. The exact form of the feature is obscured with vegetation but this may be site that was identified as the site of a cist at Treryn Dinas (Fig 34) (Cornwall and Scilly HER 26971).



Fig 32 (above right) The northern rampart curves to the SW and merges with the cliff edge (Hazel Riley)



Fig 33 (right) The entrance to the promontory fort and the inner face of the northern rampart (Hazel Riley)



Fig 34 (above) Mound between the north and middle ramparts

A slight scarp [W] runs SE/NW from the outermost ditch of the middle ramparts for some m towards the mound described above. Whilst it is tempting to interpret this as part of a pre-promontory fort field system, it may be following the trend of the underlying bedrock. A second scarp [X] presents similar problems of interpretation: a scarp lies at the inner face of the northern rampart at the point where the rampart changes in direction and character. A stony scarp lies in the ditch by the outer rampart face. Both elements are overlain by the rampart (Figs 35 and 36). This may be the underlying trend of the bedrock but the possibility exists that this could be an element of a pre-promontory fort field system. A field system, transcribed from air photographs and interpreted as prehistoric (Cornwall and Scilly HER 53340), lies to the NE of the northern rampart in the fields between Treryn Dinas and Treen. The area between the promontory fort and the field system is presently covered with gorse and bramble scrub, making further investigation impossible.

A clear relationship between part of a prehistoric field system and the defences of a cliff castle were observed and recorded at Maen Castle, north of Land's End. Here, the rampart was seen to overlie the prehistoric field system at a point where the rampart changes direction (Herring 1994b, figs 2 and 3).

Several small, shallow circular hollows or pits [Y] are visible in the recently cleared area south of the northern rampart. The origin of these is unclear: they may be the result of stone extraction in the historic period or the use of the area as turbary in the 19th century (St Levan tithe map and apportionment 1841 & 1838).



Fig 35 (above left) The scarp below the inner face of the northern rampart (Hazel Riley)



Fig 36 (left) The scarp in the ditch below the outer face of the northern rampart (Hazel Riley)

CONTEXT AND DATE OF THE ARCHAEOLOGICAL FEATURES AT TRERYN DINAS

As radiocarbon dating for the later prehistoric period in Cornwall does not yet allow detailed local chronologies, the Cornish Iron Age tends to be divided into an Earlier Iron Age, which begins around 600 BC when iron begins to replace bronze, and ends c 400 BC. The Later Iron Age, begins when South-Western Decorated pottery becomes the dominant ceramic form from about 400 BC and lasts until the Roman period (Quinnell 1986, 111-113). This period also marks the introduction of rounds (enclosed settlements of some status) and multiple-enclosure hillforts (Quinnell 2004, 214).

The most recent analysis of Treryn Dinas was a study of the cliff-castles of West Penwith by Peter Herring, following the repair work at Treryn Dinas and Maen Castle (Herring 1994c). Herring saw the stonework of the inner rampart as a later –probably medieval – reworking of a Late Iron Age bank and therefore suggested that all three of the ramparts are of similar date: in other words Treryn Dinas is a multiple enclosure hillfort, dating from the Cornish Later Iron Age. Herring also recognised the importance of the granite mass on the southern tip of Treryn Dinas as a sacred or special place, with the recently discovered bank and ditch acting to channel people up through the rocks to the Logan Stone. He dismissed the idea that such places were permanently settled but that they were built and used as meeting places for secular and sacred activities by stable agricultural communities, made up of small co-operating groups of farming families, living in rounds or open settlements elsewhere in West Penwith.

The possibility of an earlier date for some of the elements at Treryn Dinas should also be considered. The records of earlier prehistoric flint material from Treryn Dinas, together with several Neolithic flint tools from Treen Cliff, including a leaf-shaped arrowhead and a flint axe, show that the site was used in the earlier prehistoric period. Given that the inner rampart was probably significantly rebuilt in the medieval period (Herring 1994c, 51), the actual cutting off or enclosing the promontory tip may have begun as early as the Neolithic period when granite tors begin to be monumentalized in the Cornish landscape. This may have occurred at the same time that the earliest phase of the central enclosure, with its affinities to earlier Neolithic tor enclosures, was constructed.

The morphology of the central enclosure should also be considered in the light of the recognition of earlier phases of enclosure – perhaps late Neolithic or early Bronze Age - within the Iron Age hillforts of Caer Bran and Castle an Dinas in West Penwith. The rather awkward junction of the SW end of the middle rampart certainly suggests phasing within these ramparts. The possibility of a pre-cliff castle field system should also be considered in the light of the scarps located in the outer enclosure.

STATEMENT OF SIGNIFICANCE

The archaeological remains at Treryn Dinas represent the use of this promontory over several thousand years, from the Mesolithic period to the Roman period. In the later medieval and post-medieval periods the promontory was recognised as having a ‘castle’ and the Logan Rock emerged as a visitor attraction from myths of giants and witches.

The survey has shown how the natural landforms of the promontory have been utilised to enclose and divide up the land mass. The central enclosure may well be one of the earliest manifestations of this process, using both the cliff edges and granite masses to enclose a space on the highest part of the promontory, with affinities to the Neolithic tor enclosures found elsewhere in the South West, in particular in Cornwall. If this is the case, it is a very significant addition to the 10 probable sites recorded in the Cornwall Scilly HER and its location on the coast has implications for the dating of cliff castles elsewhere in the county, as has been noted by Adam Sharpe (1992).

The outer part of this central enclosure and the northern ramparts of the outer enclosure were probably added at a later date, perhaps sometime in the later Bronze Age or Iron Age. The interior of the outer enclosure has the potential to contain evidence of features such as hut platforms.

The inner ramparts effectively isolate the granite mass at the southernmost tip of the promontory from the rest of the land mass and it is this area which seems to have been the focus of activity on the promontory for several millennia. The impressive granite outcrop and the special nature of the Logan Rock are emphasised by the ramparts across the narrow neck. The occasional finds from the area, and the structures located within, are crucial to understanding how this place was used in prehistory. The narrowing of the promontory and the very thin soil combine to make it one of the most sensitive areas of the site to erosion and damage.

MANAGEMENT AND RECOMMENDATIONS

Treryn Dinas lies in an area of coastal rough ground which until recently had been unmanaged for many decades. As a result, the majority of the site has become very overgrown, with extensive spreads of bracken and bramble, stands of blackthorn, and areas of dense gorse and heather. Only a central corridor leading along the spine of the promontory is under shorter vegetation, the result of the heavy visitor footfall. At the very rocky southern tip of the headland, only a short turf sward grows on precariously thin granitic soils.

Ten years in Countryside Stewardship resulted in scrub clearance on the outer rampart but with no follow-up grazing, this rapidly grew over again. The site is now in a Higher Level Stewardship agreement and through this, grazing by ponies has recently been introduced. Scrub clearance started on the headland in the winter of 2014-15.

As an aid to planning future management which will benefit both the archaeology and ecology of the promontory, the habitats as surveyed for the Treen Cliff SSSI designation have been plotted onto the archaeological survey plan (Fig 13 and above: Vegetation survey).

Impact of management on the monument

Stock erosion

The recent scrub clearance and introduction of grazing have made great progress in starting to reveal far more of the cliff castle than has been visible for many years and – as can be seen from this survey – has opened up and displayed features of significance



Fig 37 Areas of erosion recorded in April 2015 on and around the inner rampart

which have not been evident for many years. At the same time, however, parts of the site have also been opened up to erosion as ponies have scuffed the ground, especially in the short turf areas either side of the inner rampart, an area which is both archaeologically and botanically very sensitive (Fig 37). This is the part of the site that is also very vulnerable to on-going coastal erosion.

Seven areas of erosion caused by the ponies which graze the site were mapped to the north and south of this inner rampart (Fig 37). The damage is most severe NW of the inner rampart on the side of the ditch, across the south end of the SE building, and on the probable ditch and bank SE of the inner rampart (Figs 15, 19, 38).

Additionally, as ponies have attempted to clamber up the steep slopes leading south from here to the Logan Stone area of the promontory, they have scuffed the ground on a narrow path, causing exposure of artefacts in a scarp apparently revetting a platform amongst the rocks (c SW 39687 2032).

Fencing

Owing to the impacts of stock erosion, the National Trust obtained Scheduled Monument Consent to position a temporary electric fence when necessary. The purpose of this is to restrict animals from damaging the most sensitive southern parts of the headland, especially around the inner ramparts, and to help increase their benefits in the scrubber and bracken-infested northern parts. Stiles will be provided where needed to ensure that visitors can continue to access the southern part of the headland.

Fencing of any type is undesirable on Treryn Dinas because of the visual impact in this open, rugged location and the impediment to the large numbers of visitors. However,



Fig 38 Detail of the erosion on the building SE of the inner rampart (Hazel Riley)

in the summer of 2015 the fence was erected against the northern face of the inner rampart, where it proved very unobtrusive.

Human erosion

Treryn Dinas is relatively easily accessible via a short walk from a car park in the hamlet of Treen. There is a camp site close to the cliffs to the NW of the site. The promontory is a very prominent landscape feature (forming a backdrop from the nearby Minack Theatre, for example) and is well known because of the stories surrounding the toppling and re-erection of the Logan Rock in the 19th century. As a result, this is a more than usually frequented part of the cliffs of Penwith. Many visitors walk out to the site, and the effect of this has been the development of a worn path along the spine of the promontory.

Until recently, the prevailing vegetation across the site has meant that visitors have been confined to a few narrow paths, so increasing the impact of visitor erosion along a narrow corridor. This is particularly evident as the path crosses the curving ramparts of the central enclosure, where upright stones set into the ramparts have been exposed (Fig 39).

RECOMMENDATIONS

As Figure 13 shows, scrub and bracken continue to affect large areas of the site. To reduce the threat to the monument from continuing root and rhizome damage, progressive scrub and bracken clearance should be undertaken to build on the work already begun. At present it is impossible to tell where further significant remains may still exist especially on the sloping sides of the promontory where dense vegetation prevented access. Further work is recommended as follows:

Fig 39 Erosion along the path across the outer enclosure and inner rampart (Hazel Riley)



Scrub management

Short term

The recent scrub clearance work has highlighted the need for further work on and around the northern and middle ramparts. However further work is needed to gradually and progressively reveal the archaeology and reduce the risk from bracken and scrub roots and rhizomes.

The following areas/features should be given priority for further scrub clearance in the near future (Fig 40):

- The mound [V]
- The southern bank of the middle ramparts
- The eastern side of the middle ramparts
- The areas around the possible prehistoric lynchet [X], north and south of the northern rampart and east of the lynchet
- To continue to cut back further around the edges of the already cleared areas between the middle and outer ramparts, gradually reducing the areas of scrub and enlarging the areas of grass and heathland.

An additional benefit of gradually widening the areas available for stock grazing is that this will take pressure off the short turf areas which are of value botanically and contain sensitive archaeological features subject also to coastal erosion. Human visitors likewise will be free to wander over larger areas and erosion along the spinal path will hopefully be gradually lessened.

Long term

Continue this work, progressively opening up larger areas, while monitoring to ensure that there are no further negative impacts.

Methods of scrub clearing

The farm holding is organic, so chemical control of scrub and bracken is not possible. Scrub and bracken control will be limited mechanical methods. To avoid damage to archaeological features, it is recommended that:

- Vegetation is cut using hand-held tools only
- Care should be taken not to damage earthworks or rocks
- Detailed work on the earthworks and around rocky areas could be done by volunteers with loppers, secateurs, etc
- Bracken can be rolled or cut using machinery mounted on a small tractor or quad bike but this should not be used if the ground conditions are wet

Grazing

Despite the initially damaging effects of grazing on the monument, it is considered that this is desirable as it represents a restoration of the traditional management of Treryn Dinas. It is already clear that grazing is helping to maintain the scrub-cleared areas and continued grazing will help to sustain and to increase the areas so far cleared of scrub. Without continued grazing, and/or a substantial level of cutting and management by the farmer, the scrub and bracken will grow back again very quickly.

Monitoring

Evaluation of the effects of scrub clearing and grazing and frequent and regular monitoring to check that there has been no further erosion *will be essential at all stages*.

Future recording

Coastal erosion

The most rapid coastal erosion affecting the promontory seems to be occurring at the narrow neck of land just to the north of the inner rampart, where the lawns are encroaching on elements of the ditches in front of the stone faced bank (Fig 15). Coastal erosion is also affecting the area between the inner ramparts and the granite mass. Further recording in this archaeologically sensitive area is desirable but safety considerations suggest that recording by Lidar or drone should be investigated.

New archaeological features revealed as scrub and bracken management progress

As the vegetation management progresses the location of any artefacts and new features revealed as a result of clearance should be plotted on the plans included in this report. The finds and features could be located by hand held GPS or by measuring from features identified on the plans.

Flora and fauna

The plans included in this report can be used to record other aspects of the promontory in relation to the archaeological features.

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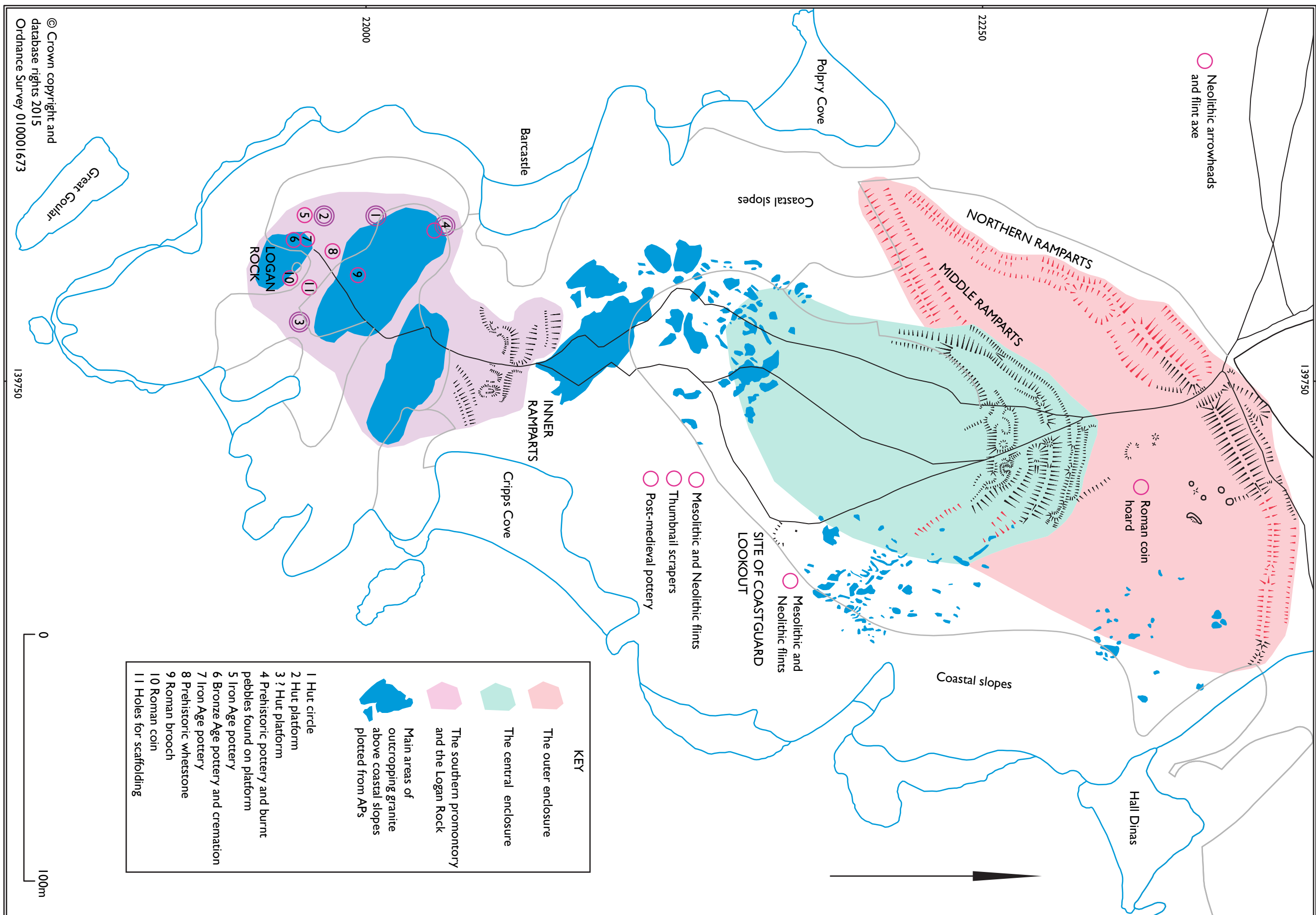


Fig 12 Treryn Dinas 1:1500 plan of archaeological features & artefacts found on the site (approx locations)

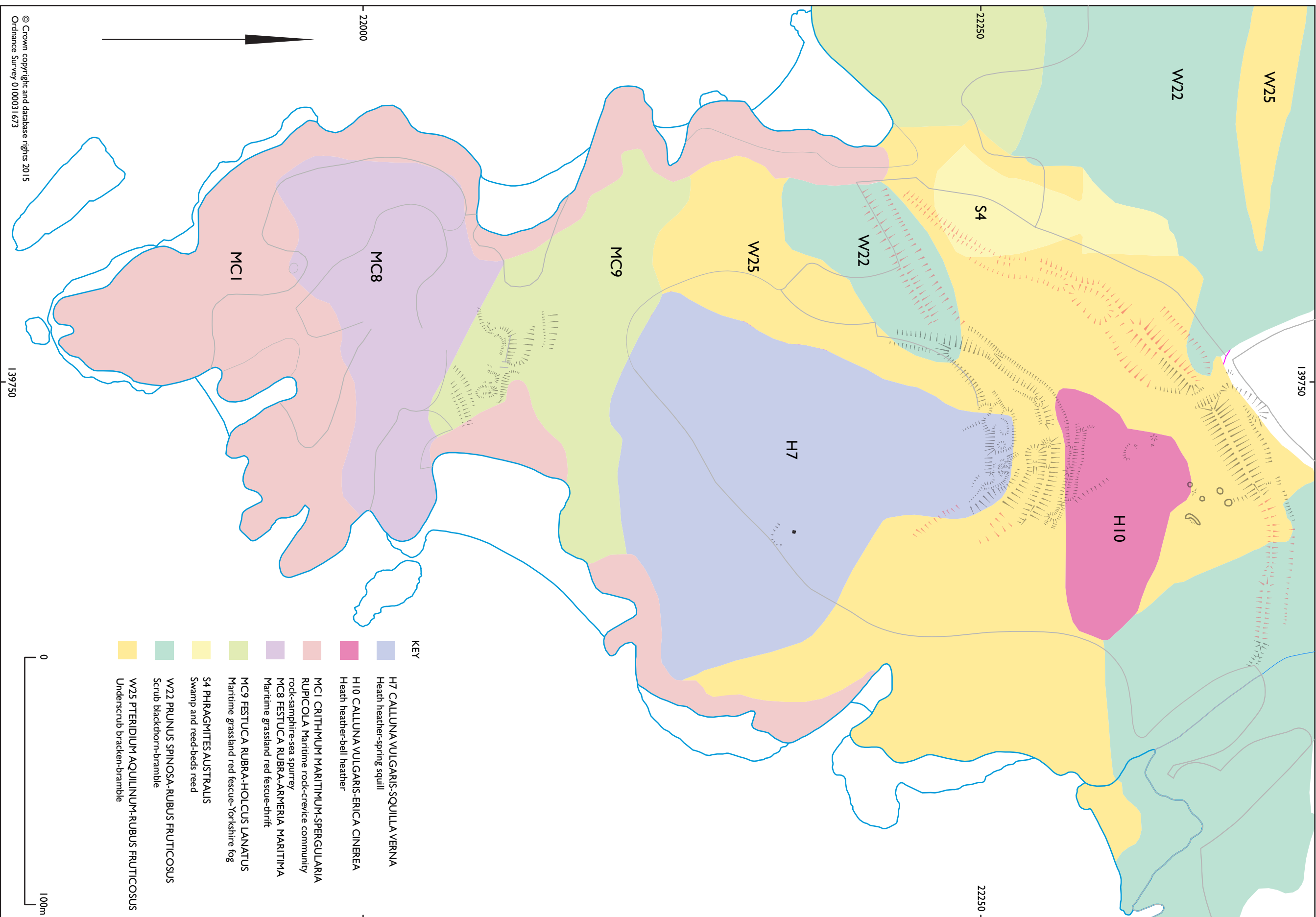


Fig 13 Treryn Dinas 1:1500 plan showing the NVC vegetation units (digitised from a NT survey)

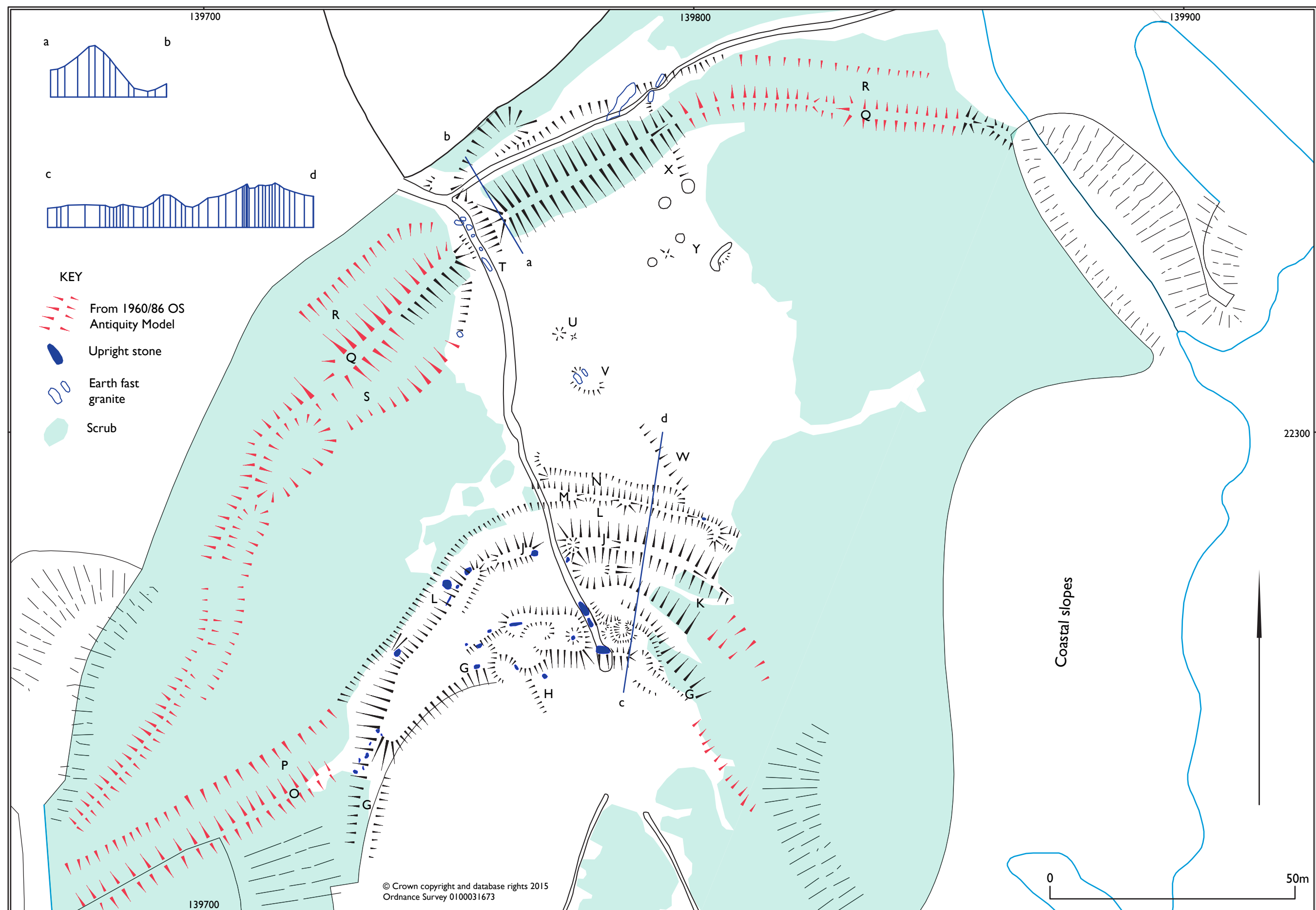


Fig 27 Treryn Dinas: 1:500 plan of northern and inner ramparts (vertical scale x 2) (reduced to 1:750)

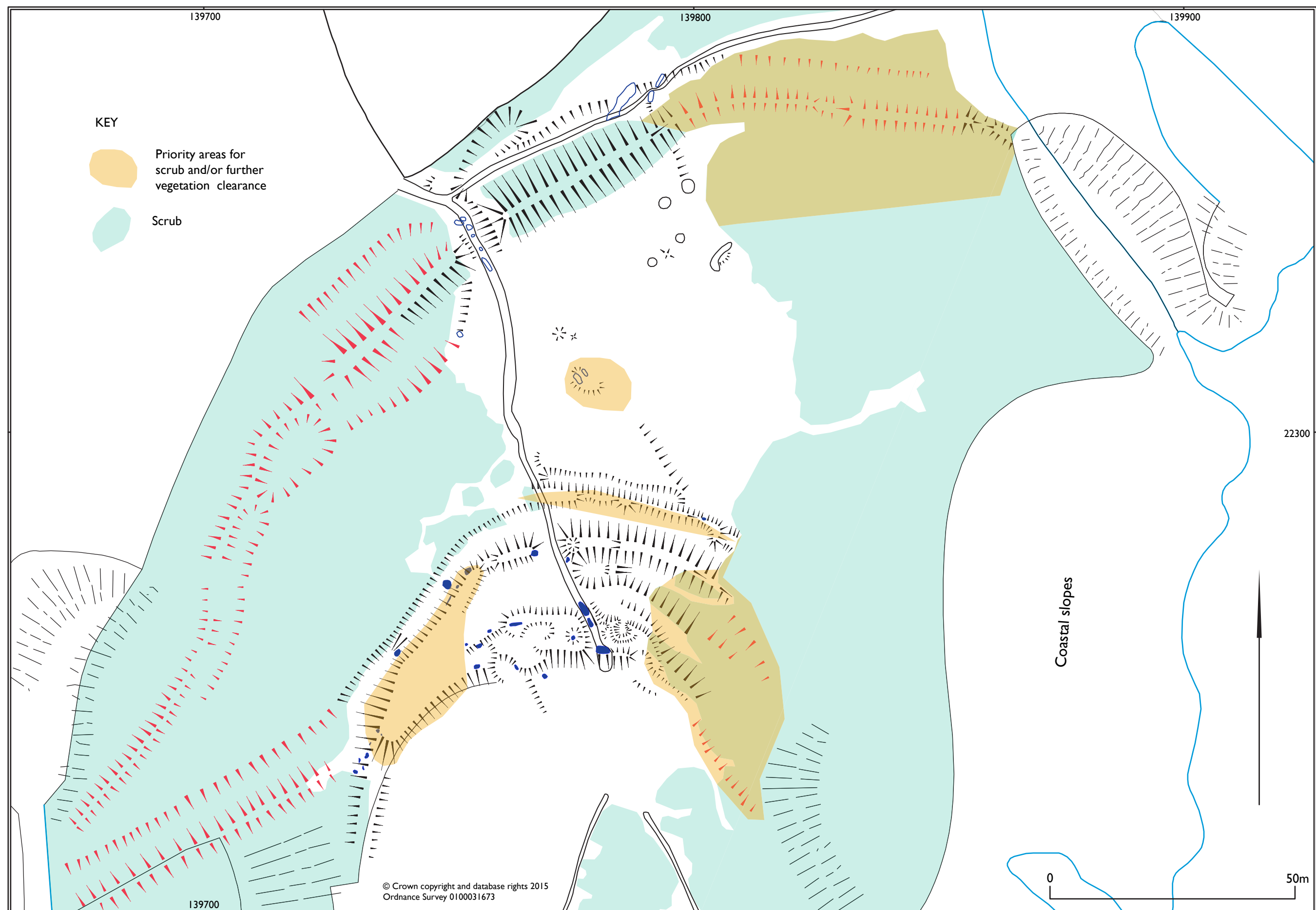


Fig 40 Treryn Dinas: priority areas for scrub clearance

