

A Prehistoric Field System and Related Monuments on St David's Head and Carn Llidi, Pembrokeshire

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This short paper describes the remains of prehistoric settlements, chambered tombs, a promontory fort, a prehistoric defensive wall, a rectilinear field system, and other field systems on marginal land at St David's Head. Antiquarians and archaeologists have known of these remains for over two centuries, but it is only through modern surveying techniques and aerial photography that their true nature can be appreciated. The defensive wall and associated rectilinear field system could have originated from the 2nd millennium BC through to the 1st millennium BC. Other field systems and settlements are likely to be of later prehistoric or Romano-British origin. Elements of the field systems have influenced and are preserved in the modern 'Pembrokeshire' landscape which borders the headland.

INTRODUCTION

St David's Head is an exposed, rocky, anvil-head shaped promontory at the extreme western end of Pembrokeshire, Wales (National Grid Reference SM 7227). It was known to the Romans as *Octapitarum Promontorium* (Rivet & Smith 1979, 430). Vertical sea-cliffs up to 50 m high define its northern, western, and south-western flanks (Fig. 1). Along the southern coast the sandy cove of Porth Melgan affords a small, if somewhat exposed, landing place. South of Port Melgan the cliffs rise again, before falling away to a wide, open beach at Whitesands Bay. An open valley which trends inland of Porth Melgan in a north-easterly direction affords some degree of protection from prevailing south-westerly winds. South-east of the valley the land rises to the craggy peak of Carn Llidi at 181 m.

Geology to a great extent determines landform; the rocky headland and sea-cliffs to the north and Carn Llidi to the south are composed of hard igneous Gabbroic rocks of the Lower Palaeozoic, while Ordovician mudstones lie in the valley between (British Geological Survey 1990). Tor-like outcrops, low cliffs, and boulder spreads characterise the igneous areas. The Ordovician mudstones have

weathered into a more rounded landscape of gentle slopes.

Soils are acidic. The whole of the headland is moorland, and under a regime of low-level rough grazing. Vegetation varies from short grass and heather in the more exposed locations, to bracken and gorse scrub in other areas, with a little grazed grass in the sheltered valley. Owing to the very low-level grazing regime and the cessation of gorse-, bracken-, and heather-management by annual burning, scrub cover is probably denser now than it has been for several generations. Several of the more exposed areas have suffered severe soil erosion (Fig. 2); the ground surface now has little more than scoured bare rock supporting sparse heather cover. The wind has been the main cause of this soil loss; it was noted during the 1997 survey that a light wind was sufficient to lift and transport soil particles in those areas in which the vegetation cover had been burnt-off. A peat bog with small pools of standing water lies in the bottom of the open valley. Comparison between 19th century and modern Ordnance Survey maps suggests that much of the peat is of recent origin. A second smaller bog lies to the east of Coetan Arthur chambered tomb. The St David's tithe map and apportionment of 1840–1 marks the headland as common which, according to the various antiquarians (see below) who visited in the late 18th and early 19th century, consisted of rough, exposed moorland.

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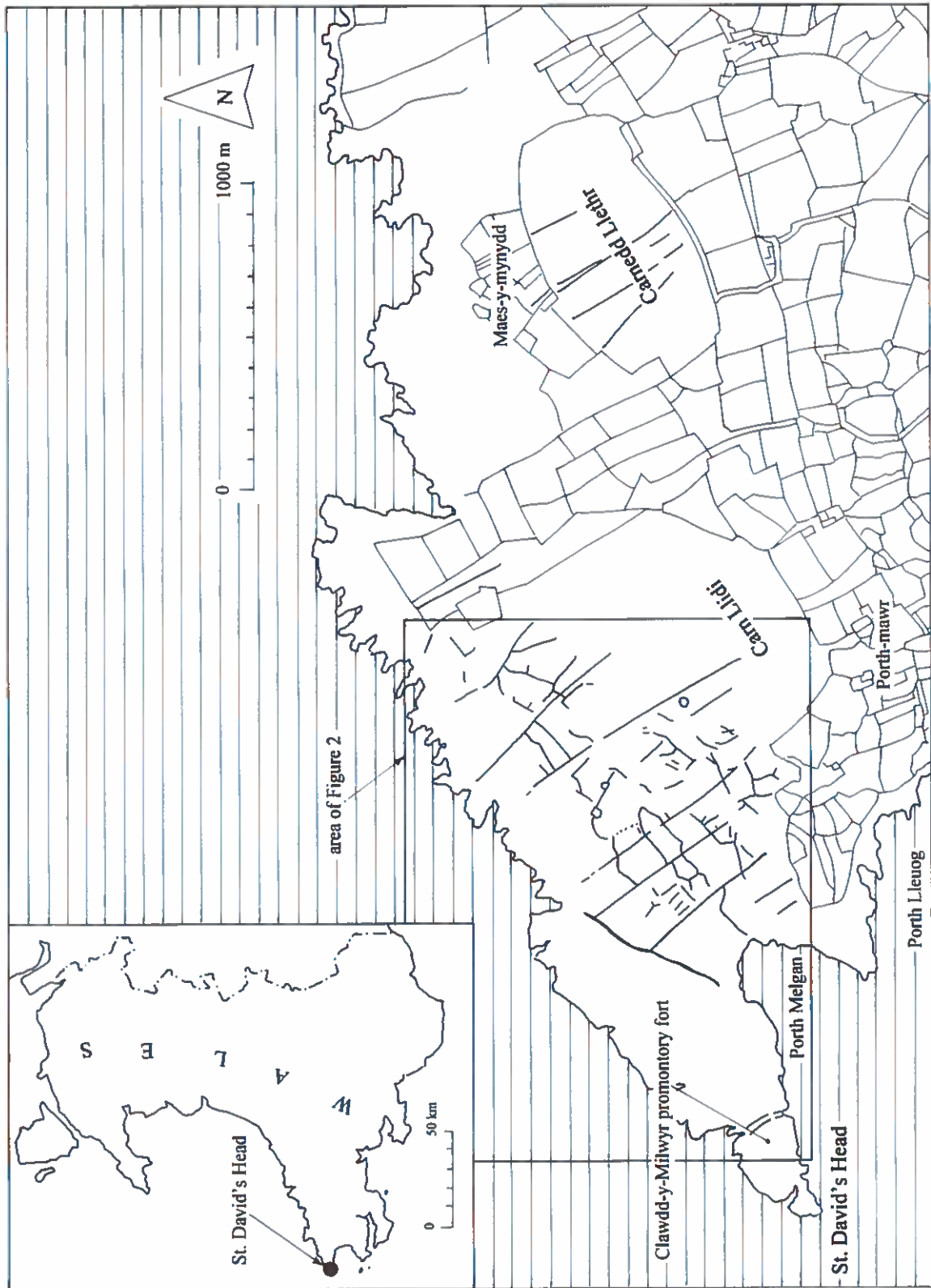


Fig. 1
Location map with a heavy line showing relict landscape components on St David's Head, Carn Lidi and Carnedd Llethr and modern boundaries in a thin line.

4. K. Murphy PREHISTORIC FIELD SYSTEM, ST DAVID'S HEAD, PEMBROKESHIRE

Relict field systems are not just confined to the St David's promontory. Straight, relict boundaries similar to those described below have been photographed from the air at Carnedd Llethr, 2–3 km to the east of the headland. The pattern of ancient fields is also preserved and perpetuated in modern field systems; an examination of Figure 1 indicates that alignments, if not the courses, of many boundaries that make up the modern field pattern to the east of the headland are derived from the rectilinear system described below.

The National Trust owns St David's Head common. In June 1996, R.C. Turner, Inspector of Ancient Monuments with Cadw: Welsh Historic Monuments, and E. Plunkett Dillon, archaeologist with the National Trust, visited Clawdd y Milwyr promontory fort on the tip of St David's Head and noted visitor erosion around the entrance to the fort. Mr Turner asked Cambria Archaeology to submit a proposal to survey the fort's entrance and defences, to be funded jointly by Cadw and the National Trust. Cambria's proposal was accepted, but before the survey could be carried out Dr T. Broom alerted Cambria to an accidental fire that, in October 1996, had destroyed vegetation across the western part of the headland, revealing many previously unrecorded archaeological remains (Fig. 5, below). Cambria obtained agreement for further funding from Cadw to increase the survey area to include the whole of the burnt-off area. In the event, the extent of land surveyed was much larger than that agreed, comprising the area covered by the contouring in Figure 2.

A topographical survey of the headland was carried out over ten days in January 1997 using an electronic distance measuring theodolite with attached data recorder. At the same time, several flights were undertaken by the air photography staff of the Royal Commission on Ancient and Historic Monuments of Wales (RCHAMW), taking advantage of the low winter light and visibility afforded by the burnt-off vegetation to photograph the earthworks and walls that comprise the archaeology. The survey data acted as a control during the digitising of information from the aerial photographs onto the survey drawings. Further archaeological information recorded by Professor Grimes in 1961 on annotated Ordnance Survey maps was digitised onto the 1997 survey plan. This last set of data was particularly useful in the southern section of the survey area as here vegetation was at its highest in 1997. The resulting survey plan forms the basis of the figures in this report.

HISTORY

The antiquities and monuments on, and close to, St David's Head have long attracted the attention of antiquarians and archaeologists. George Owen, the renowned Pembrokeshire antiquarian, historian, genealogist, and landowner, writing in about 1600, described the rocking stone at Maen Sigl (Fig. 2), to the south of the survey area (Miles 1994, 190–1). Writing approximately a century later, Edward Llyud (Camden's *Wales*, 56) recorded that the stone could not be rocked. Both these early writers failed to mention other antiquities on the headland; it was not until 1793 during a tour through England and Wales by Sir Richard Colt Hoare that a record of other monuments first appears.

Colt Hoare described round-houses within Clawdd y Milwyr promontory fort, but made no reference to the fort itself: 'six distinct circles of no very large dimensions with stones set around them, most of which are displaced. ... No place could ever be more suited to retirement, contemplation or Druidical mysteries' (Thompson 1983, 48). Published in 1801, George Manby's *History and Antiquities of the Parish of Saint David* expands on Colt Hoare's druidical themes. Manby (1801, 67–71), however, was clearly a keen observer of the landscape and as well as describing the round-houses noted by Colt Hoare (seven in Manby's account) he was the first to note a promontory fort on the headland, which he ascribed to the Romans. Manby also recorded foundations of a square building (of which there is now no trace) at the foot of the rampart of the promontory fort, a cave within the ramparts, called the Goat's Cave, a defensive wall – 'To the northward of the Head, are vestiges of antient places of defence, worthy of attention – as there is neither history nor tradition concerning them.' – and cairns – 'In various places are seen carns, or more properly carnedds; several of them are ranged in a line, at a small distance from each other, in the direction of east and west: they consist of large tumuli of stones, probably the sepulchres of persons of renown.'

Richard Fenton, antiquarian and friend of Colt Hoare writing in 1811 (p. 117) offers a more prosaic account – 'there occur in every direction ancient inclosures, of various shape and dimension, seemingly the remains of the earliest population, druidical mysteries, and military operations. Pass a rampart of loose stones extending across the ridge from one sea

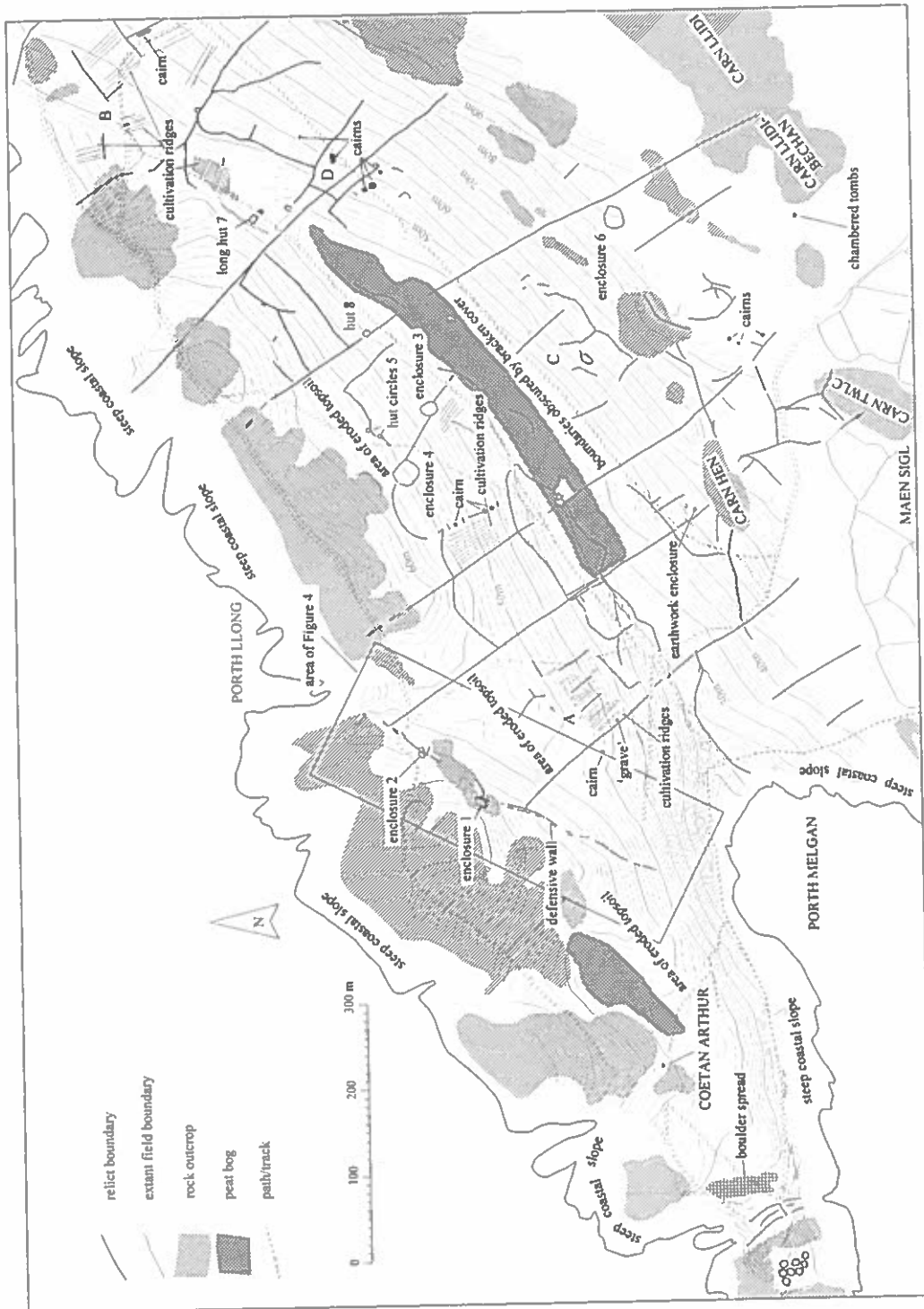


Fig. 2
Main area of the survey.

to the other, within which are the same appearances of squares and circles marked with stones as without; a little farther on you meet a Cromlech, consisting of a flat incumbent stone resting on an upright.' Fenton also describes the promontory fort defences, ascribing them to 'the labour of invaders' (p. 117) and the round-houses within, which now numbered 'seven or eight'.

Later writers of the early- and mid-19th century such as Lewis (1833) and Cliffe (1854) rely on these earlier accounts for their descriptions, and it is not until 1856, with the publication of Jones and Freeman's *History and Antiquity of St David's*, that any new observations and analyses appear. They provide a good description of the promontory fort defences and interior (pp. 34–5). Six round-houses with traces of others are mentioned which they term *Cyttiau* (huts). Other remains are mentioned (p. 34) – 'The whole area between the Head and Carn Llidi is full of old stone enclosures, which appear to point to an age when this dreary and blasted tract was under cultivation.' A major step forward in the recording of the archaeology of the headland was the publication in 1889 of the Ordnance Survey 1:2500 map. As well as depicting the defences of the promontory fort and six 'Hut Circles' within, Coetan Arthur cromlech and two un-named cromlechs at the foot of Carn Llidi-bechan, this map included a depiction of a field system and enclosures labelled 'Ancient Enclosures'. The line of the defensive wall is marked by hachures, with small enclosures labelled 'Hut Circles' adjacent to it. To the south and south-east of the defensive wall the 'Ancient Enclosures' are drawn as a series of small, conjoined ellipses, presumably intended to represent stones and boulders, and comprise rectilinear and curvilinear boundaries with three associated enclosures.

Over a period of 18 days in July and August 1898, no doubt inspired by the information shown on the Ordnance Survey map, the Reverend S. Baring Gould (1899) undertook a programme of excavations on various sites on the headland. Where appropriate, the results of Baring Gould's investigations are included in the individual site descriptions below. Baring Gould concentrated on excavating the six house sites then visible and several rock shelters within Clawdd y Milwyr. Other than Ogof Geifr (Goat Cave) it is now not easy to locate the shelters investigated. Artefacts from the excavations indicate Late Iron Age and early Romano-British occupation of the fort. Baring Gould

also investigated the enclosures associated with the defensive wall, hut circles, and cairns outside the defensive wall, and Coetan Arthur chambered tomb. The artefacts from Baring Gould's excavations are lodged with Tenby Museum and Art Gallery, Pembrokeshire (Figgis 1999, 70).

Little further interest was shown in the remains on the headland until 1961, when Professor W F Grimes conducted a ground survey and aerial reconnaissance following the burning-off of gorse cover. Grimes's records, which comprise an annotated 1908 Ordnance Survey 1:2500 map and aerial photographs, are lodged with the National Monuments Record for Wales held by RCAHMW, Aberystwyth. His map was particularly useful to this study as parts of the headland he examined were under dense gorse scrub in 1997. It seems that Grimes was not able to complete his survey, and that he had little time to undertake detailed analysis. In a short note published following a visit by the Royal Archaeological Institute (Grimes 1962) he claimed that the long linear boundaries, which are now considered prehistoric, were the result of 18- or 19th-century enclosure. In 1986, following the National Trust's acquisition of the land, J. Latham and E. Plunkett Dillon undertook an archaeological survey, which identified and described all remains, in order to provide information for management plans.

DESCRIPTION

The chambered tombs

The sites of three chambered tombs are situated within or close to the borders of the survey area (Fig. 2). Two of these lie close together on the slopes of Carn Llidi-bechan and are now very ruinous. The third, Coetan Arthur, 250 m north-east of Clawdd y Milwyr promontory fort, is in better condition and consists of a large capstone propped up by a single upright. The 1898 excavations failed to reveal anything of interest (Baring Gould 1899, 130). Baker (1992, 35–6) provides a description and history of these sites.

Clawdd y Milwyr promontory fort

THE DEFENCES

Located at approximately 35 m OD, the defensive system encloses a small rocky promontory of 3.4 ha (Fig. 3). The

system lies on the west side of a shallow saddle, from which land to the north and south falls away steeply in narrow gullies down to cliff-tops and the sea. Immediately west of the defences is an extensive outcrop of bare rock, while to the east the land rises steadily and gently. The main component of the defensive system is a rubble bank, now mostly covered with vegetation but with bare stone exposed on the eastern flank and around the entrance. The bank survives to a maximum height of 2.2 m. Wall-faces of three to four courses of dry-stone masonry can be seen towards the northern end of the bank exterior and in the entrance passageway, indicating a passageway width of 2.1 m. There is no surface evidence that the entrance through the rubble bank is anything other than a simple passageway. A spread of boulders some 25–30 m to the east of the bank may represent a further line of defence. There is no evidence to indicate that these boulders had been placed upright or bedded in the ground to form part of a well-designed *chevaux-de-frise*, as is visible at the small hillfort at Carn Alw (Mytum & Webster 1989) and as has been excavated at Castell Henllys (Mytum pers. comm.), both in north Pembrokeshire. Nevertheless, the discrete spread in an area that has otherwise been cleared of stone or in which stone was never present suggests intention.

THE INTERIOR

Although the area enclosed by the defences is 3.4 ha, very little of the land is suitable for occupation; most is a bare craggy rock outcrop, the western end of which is washed by the sea in stormy weather. A sloping grassy shelf 50 m by 30 m, bordered by a rock outcrop to the west, north, and east and by a cuesta to the west, provides the only suitable location for dwellings (Fig. 3). To the west the rock outcrop towers over the shelf by several metres, providing a degree of shelter from the prevailing wind. Seven, possibly eight, stone-built round-houses are tightly-packed on the shelf. Each house is located on a terrace cut into the slope and is defined by numerous earth-fast stones. The houses are circular or sub-circular, with external diameters varying from 8.0 m to 9.8 m.

Six houses were excavated by Baring Gould. His method was to remove all the earth within each house down to approximately 0.6 m (2 ft) below the ground surface. No minor structural evidence such as post-holes was recorded, but floors were recognised in four houses, and hearths in two. Sifting the excavated soil produced a wealth (for west Wales) of finds. These included blue glass beads, spindle whorls, pottery, and stone artefacts, the descriptions of which are consistent with occupation in the Late Iron Age and early Romano-British period. Baring Gould made an unsuccessful search for middens both between, and close to the houses, and several rock shelters were examined, but only Ogof Geifr can now be identified with any certainty.



Fig. 3

Aerial view of Clawdd y Milwyr fort from the south-west showing the precariously located round-houses and the defensive system across the narrowest portion of the promontory (Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Wales. Photo 973502-07A).

Defensive wall

Running along the western crest of a low valley side from Porth Melgan in the south to Porth Llong in the north are the remains of a massive dry-stone wall which effectively enclose an area of 25 ha, which includes St David's Head, with its promontory fort, and Coetan Arthur chambered tomb (Figs 2, 4, & 5). Approximately 8 ha of the enclosed area comprises bare rock outcrop and 7 ha consists of steep coastal slopes. The remaining 10 ha consists of a rounded ridge and plateau covered with thin soils and bare rock, boulder spreads, and a small peat bog. The predominant vegetation type is heath. There are no traces of field boundaries or habitation sites within

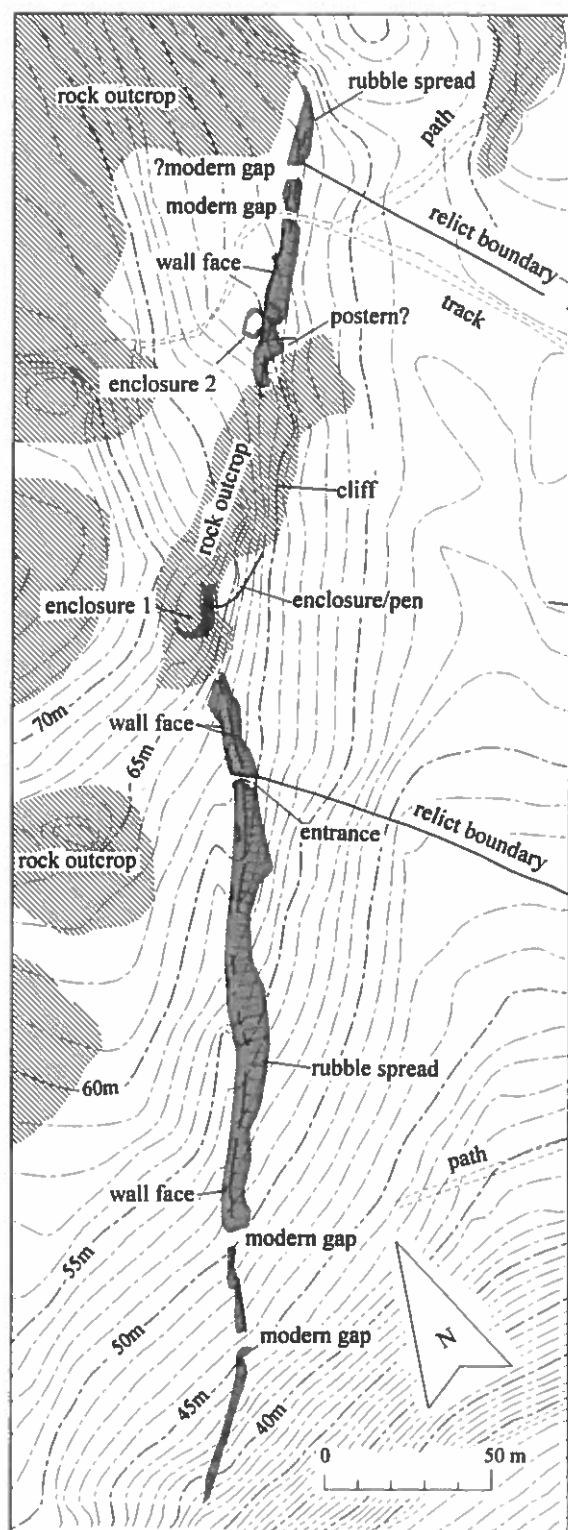


Fig. 4
The defensive wall.

the area enclosed by the defensive wall, apart from those associated with the promontory fort.

The site of the wall was carefully chosen to taken advantage of natural defences afforded by topography. At the southern and northern ends the wall runs out into very steep coastal slopes; most of its course lies on the crest of an east-facing slope. A rock outcrop with a low east-facing cliff incorporated into the course of the wall towards the northern end provides a good natural barrier – the wall stops short on either side of the highest point of the outcrop.

The wall is ruinous and nowhere stands to more than a few courses in height. Structural elements do, however, survive. Sufficient of the inner and outer wall faces remain to indicate that the wall was between 2.3 m and 2.7 m wide. Stone fallen from the wall now forms a spread of rubble on the steep slope to the east. Several breaches have been made through the wall, most of which appear to be modern. An original entrance is evidenced by terminals revetted by dry-stone walling, with a passageway 1.7 m wide. A relict, straight boundary meets the wall adjacent to the north side of the entrance. It is possible that a second entrance lay towards the northern end where a second relict, straight boundary meets the wall, but here a modern track has been driven through, which was later replaced by a second track several metres to the south, obscuring the evidence. There is no surface evidence for a ditch.

Two enclosures lie over or close to the wall. Both are marked as 'hut circle' on the 1889 OS 1:2500 1st Edition map. The southern enclosure (1) is clearly not a hut circle. It is located on a shelf on the rock outcrop, and is constructed of loose, randomly laid rubble. It uses part of the rock outcrop in its circuit, and measures 15 m by 8 m. It has clearly been built over the levelled remains of the defensive wall. Baring Gould's excavations of this enclosure revealed 'much charcoal ... evidently the fireplace', and two artefacts, a blue glass bead and a perforated stone, both of which might be of late prehistoric or Romano-British date. Slight traces of a possible pen lie on the ground below this enclosure and rock outcrop. The northern enclosure (2) is a possible candidate for a hut. Again the construction technique is of loose, randomly laid rubble, this time producing an enclosure 9 m by 5 m internally, built against the eastern face of the defensive wall. Baring Gould's excavation of this feature failed to reveal anything of interest. There are slight traces for a possible, minor entrance through

the wall at this point; therefore this structure might possibly have served as a guard-hut or shelter to a postern. A very insubstantial feature, possibly formerly a similar enclosure, immediately to the east has been built over the collapsed remains of the defensive wall. Its presence was noted by Baring Gould who, though he considered that it could be mistaken for a sentry post, stated that it was built in the mid 19th century as a hide for shooting sea birds.

Rectilinear field system

Running approximately north-north-west to south-south-east across the headland are several long parallel boundaries, forming a rectilinear field system,

which divides the area into several large regular plots (Figs 2, 5, & 6). At their northern end, some of the boundaries start at the edge of the sea cliffs, and one, at its southern end, fades out in a high saddle between Carn Llidi and Carn Llidi-bechan. Two of the best preserved boundaries meet, but do not cross, the defensive wall (Fig. 5), demonstrating that this field system was laid out contemporaneously with, or later than, the defence. There is variation within and between boundaries, though generally they comprise either lines of earth-fast boulders or low rubble banks, which generally seem to cover lines of earth-fast boulders. The former types tend to be in the more exposed locations close to the coast; the latter on the

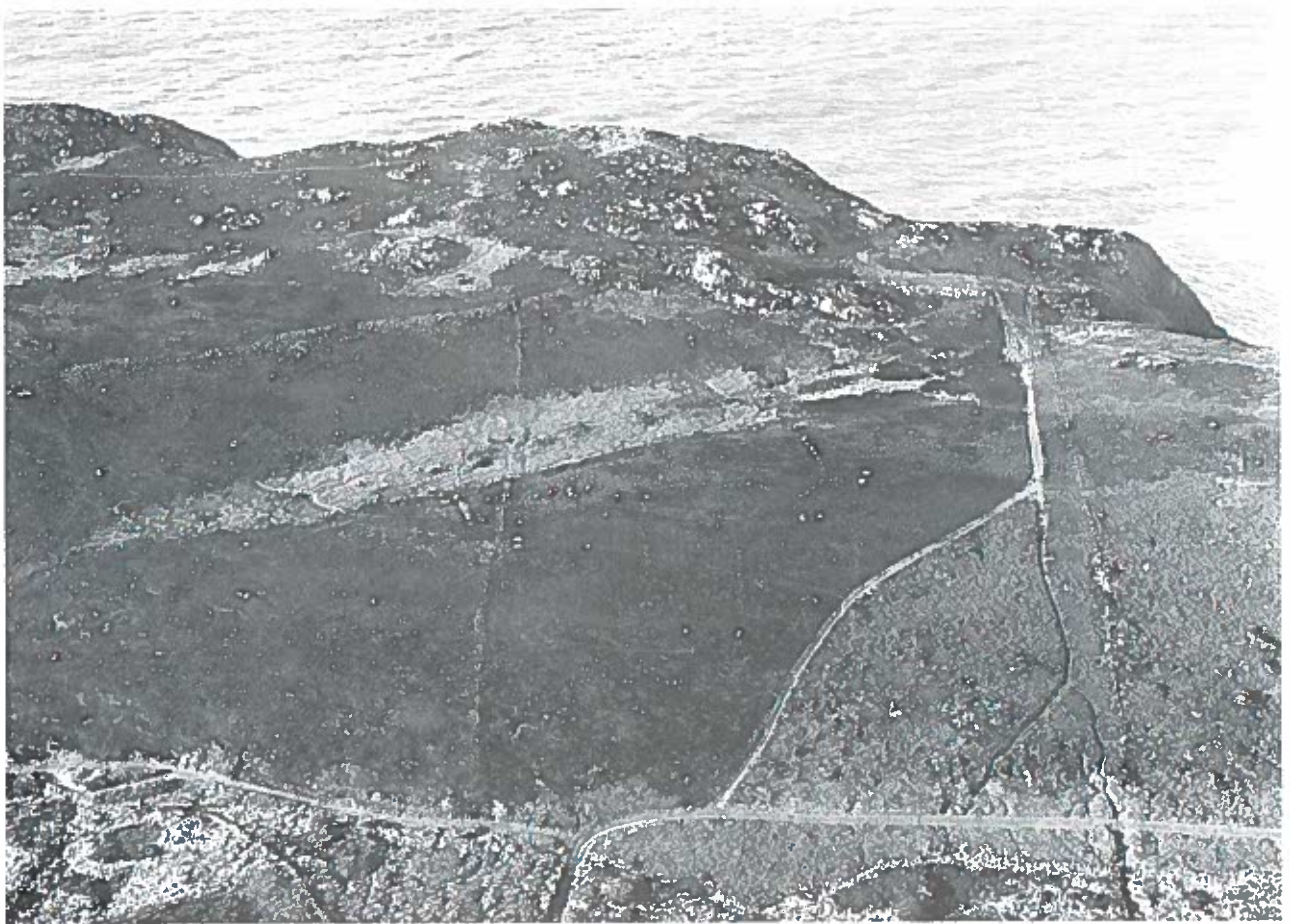


Fig. 5

Aerial view from the south-south-east showing two parallel boundaries of the rectilinear field system running from the bottom of the photograph and meeting the defensive wall which runs right to left. Burnt-off vegetation is represented by the dark area to the centre and left. Note the cultivation ridges and boundaries in the centre (Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Wales. Photo 975003-46).

slopes of Carn Llidi. Differences are therefore likely to be the results of varying erosional regimes and reuse of particular boundaries in later systems. The original extent of the rectilinear field system is almost certainly far greater than that shown on Figure 2. Banks of similar nature and alignment on a small area of rocky moorland at Carnedd Llethr were photographed from the air in 1997 (RCAHMW aerial photograph 975036-44) and many of the modern fields between Carn Llidi and Carnedd Llethr, and to the south and east of Carnedd Llethr perpetuate the alignment of the relict rectilinear system (Fig. 1). However, to the west of Carn Hen (Fig. 2), two parallel boundaries of the rectilinear system were noted but not accurately surveyed in 1997, possibly running beneath dry-stone walls of extant fields. However, due to dense vegetation cover this relationship could not be confirmed and is not therefore shown on the figures.

Sinuuous boundaries, enclosures, and hut circles

Apparently constructed within, and therefore post-dating, the enclosures of the rectilinear field system, are numerous sinuous boundaries which are associated with hut circles and enclosures (Figs 2 & 6). The structure of these field and enclosure boundaries is similar to those of the rectilinear system. The boundaries are best preserved to the north of the valley bottom peat bog where they are associated with two enclosures (3 & 4) and two hut circles (5), but even here no clear system is apparent. The two enclosures are sub-rectangular, measuring approximately 25 m by 24 m, and 18 m by 14 m, have no internal features, and are clearly an integral part of the field system, as are the two hut circles to the north-east. These two features are each composed of a ring of upright boulders approximately 4.5 m internal diameter. Topsoil erosion in the general area of the hut circles has removed most, if not all stratigraphy that may have been present. This erosion had occurred by 1898 when Baring Gould excavated the huts and therefore little survived, though traces of a hearth were noted in one of the circles. A third sub-rectangular enclosure (6), measuring 27 m by 20 m and lying high on the slopes of Carn Llidi, is better preserved. It is not obviously associated with any field boundary or field system, but at the time of the survey dense bracken cover over the north-west-facing slopes of Carn Llidi probably masked less well-defined features.



Fig. 6

General aerial view from the north-west with sea cliffs in the foreground. Note the parallel boundaries, particularly the one running from the cliff-tops to the saddle between Carn Llidi and Carn Llidi-bechan (Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Wales. Photo. 975036-45).

Other relict boundaries

It is clear that at least part of the survey area has been enclosed in the more recent past, but had been abandoned by the time of the first large scale mapping took place in 1840-1 (St David's Tithe Map and Apportionment). The evidence for this lies in several grass-covered hedgebanks, apparently earth-built, but possibly earth and stone. These lie in the valley to the south-west of the peat bog towards Porth Melgan, across the area of the valley peat bog, and in the valley to the north-east of the peat bog (Fig. 2). The peat bog seems to have formed subsequent to the construction of the banks. They are not numerous enough to be termed a system and only serve to parcel up the land into very large enclosures. While some of these

hedgebank boundaries may have been constructed *de novo*, most, particularly those to the north-eastern end of the peat bog probably follow the lines of sinuous boundaries described above.

Cultivation ridges

Within the area of burnt-off vegetation a small area of cultivation ridges (A) was clearly visible from the air in 1997 (Fig. 5), but was only really detectable on the ground with the benefit of information from aerial photographs (Figs 2 & 5). The ridges are narrow, c. 2.8 m across, just a few centimetres high, and are divided into 'lands' or bundles by very low stony banks. Further tracts of ridging are visible on aerial photographs and on the ground within vegetated areas, particularly to the far east of the survey area where they seem to be loosely associated with some of the relict hedgebanks described above (B). As these ridges show in the vegetation cover it is likely that they are more substantial than those described above. They are nevertheless narrow and divide into two groups: those less than 1m wide and those approximately 2.5 m wide. Late one January afternoon during the survey low sunlight highlighted cultivation ridges on the lower slopes of Carn Llidi and Carn Llidi-bechan (C) but, unfortunately, no photograph or other record was made, and they were not seen again. They do serve to demonstrate, however, that cultivation ridges are probably widespread across the survey area, and will be detectable in the future given ideal lighting conditions and/or if the vegetation cover is burnt-off.

The extant field system

The extant field system seems to have evolved through two separate and possibly independent routes. Between Carn Llidi and Carnedd Lethr, and to the south and east of Carnedd Llethr the fairly regular modern fields seem to perpetuate the general trend of the relict rectilinear system, as noted above, though in a much sub-divided form (Figs 1 & 2). Modern fields to the south and west of Carn Llidi are smaller and more irregular in shape. The origin of these modern fields is unknown, but they seem to have evolved organically from Porth-mawr and other farms to the south of the survey area. This development seems to have been independent of the relict rectilinear system, a suggestion supported by the indication noted above that boundaries from the extant fields overlie and cut

across boundaries from the relict rectilinear system. Boundaries of the extant system are various: dry-stone walls, earth banks, earth-and-stone banks and lynchets, and reflect changes and developments within the system over many centuries.

Long hut, 'grave', and clearance cairns

A long hut (Fig. 2, long hut 7), comprising two small rectangular cells constructed from low rubble walls, lies towards the north-eastern end of the survey area and represents a dwelling probably associated with the nearby area of cultivation ridges and relict hedgebank boundaries (B). As such it is evidence for a concerted attempt to settle and bring into cultivation a tract of moorland. Recent work (Sambrook & Ramsey 1999) suggests that long huts in south-west Wales were more likely to have been constructed in the post-medieval period rather than the medieval period.

Approximately 150 m to the south-west of the long hut lies a doughnut-shaped earthwork, composed of stone rubble with its south-western side overlying or merging with one of the relict rectilinear boundaries; this may be the site of a prehistoric round hut (8). The massive size of the earthwork, however, militates against this, and it is more likely to be of medieval or post-medieval date, possibly associated with the long hut.

Just within the western boundary of the area of cultivation ridges (A) in the burnt-off vegetation lies a grave-shaped arrangement of 11 upright stones (Figs 2 & 7). The long axis of the arrangement is aligned on the cultivation ridges and on the close-by relict boundary of the rectilinear field system. While this feature is without parallel in south-west Wales and its function is therefore unknown, it is difficult to imagine how the stones could have remained in an upright position during ridge cultivation and formation. The obvious conclusion, therefore, is the 'grave' post-dates the cultivation ridges and is of fairly recent date.

Several clearance cairns are scattered around the survey area. The largest and most obvious form a group to the east and may be associated with relict hedgebanks (D). A second group forms a line to the south-west of enclosure 4. It is not certain if the cairns in this group were deposited over a relict boundary, or if they were arranged to form an incipient boundary. One seems to contain a roughly formed cist or

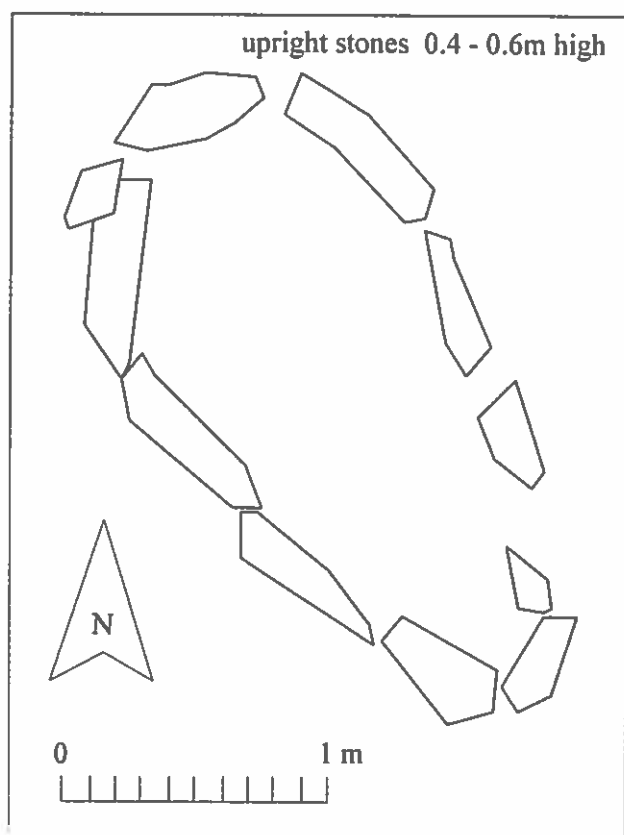


Fig. 7
'Grave' of upright, earth-fast stones.

chamber. Manby (1801, 71) referred to a line of cairns, probably this line, which he considered to be 'sepulchres of persons of renown'. Baring Gould opened one cairn in his 1898 investigations but found nothing to suggest that it was anything other than a clearance cairn. Clearance cairns are clearly difficult to date and although the examples recorded here are no exception, it is quite possible that some originate in prehistory and have been used as convenient stone dumps intermittently ever since, whilst others may be entirely of more recent date.

Maen Sigl, a rocking stone located to the south of the survey area (Fig. 2) has attracted the attention of antiquaries and archaeologists over several centuries. Latham and Plunkett Dillon (1986, 19) note that the suggestion that it represents the remains of a burial chamber only came into currency following the publication of the Royal Commission's inventory for Pembrokeshire in 1925, an error perpetuated in later publications. It is now accepted that it is a natural

phenomenon (Baker 1992, 66). The stone had lost its ability to rock at the slightest of touches sometime prior to 1709 (RCAHM 1925, 321-2).

DISCUSSION

Chronology is a major problem in any discussion of the prehistoric fields, settlements, and defences on St David's Head. Let us first examine the rectilinear system, which is the earliest recognisable field system, a type termed 'cohesive' by Bradley (1978), but now generally called coaxial. There is no absolute dating evidence for the elements that make up this system, though there are some good comparanda. The most striking and obvious parallel, both in constructional character and morphology, is the Dartmoor reave system. The very extensive system of Bronze Age land allotment on Dartmoor, originating around 1700 cal BC (Balaam *et al.* 1982; Fleming 1978; 1983) generally lies on marginal land over 250 m. In his analysis, Fleming reinforces statements made by earlier writers about similar areas that prehistoric territories were intricately divided and importance was placed on land that was economically useful but unsuitable for permanent settlement. He also notes that a large-scale system such as the reaves must represent the first land allotment of an area. These two points are of particular relevance when considering the relationship between the rectilinear system on St David's Head and the three chambered tombs. If the field system is of a similar Bronze Age date to the Dartmoor reaves, then the earlier Neolithic tombs may have been deliberately located on uncultivated land away from contemporary settlements such as Clegyr Boia (Williams 1953) 3 km to the south. Alternatively, if the system was laid out in the Neolithic period, then the contemporaneous chambered tombs would have lain within defined territorial divisions.

Other rectilinear field systems have been recognised in Cornwall. For example, Smith (1996) has detected such fields at Chysauster, which he considered to have developed over the 2nd and 1st millennia BC. Here, though, the system is less strongly rectilinear than either the Dartmoor reaves or the St David's Head boundaries. On Bodmin Moor, also in Cornwall, several dispersed examples of rectilinear systems have been mapped, some of which exhibit striking similar features to St David's Head, for example the fields at Rowden (Johnson & Rose 1994, fig. 9). The Bodmin

rectilinear fields are not dated beyond the prehistoric, and although Johnson and Rose acknowledge that they share many characteristics with the Dartmoor reave system, they note that on Bodmin the systems may have developed through accretions, rather than as a single, unified layout.

Outside south-west England, there are two other English regions – the Thames Valley and Salisbury Plain – where territorial boundaries have been recognised which may assist in helping assign a date to the construction and use of the system on St David's Head. However, in both examples the morphologies of the boundaries and general character of the systems are somewhat different from those surveyed for this paper. In the upper and middle Thames Valley excavations have revealed several examples of coaxial systems, usually comprising ditches which might have been banked, often buried beneath deep alluvial deposits (Yates 1999). Construction of what are increasingly seen to be very extensive coaxial systems began in the Middle Bronze Age, transforming the agricultural landscape of the Thames arterial corridor into a major stock rearing region, with, from bone evidence, an emphasis on cattle (*ibid.*, 164). During the Late Bronze Age the coaxial systems were located around regional centres of power, although there is evidence at Heathrow that settlements and fields were abandoned in this period. Many more did not survive into the Early Iron Age.

On Salisbury Plain the formal division of the landscape into territories by the construction of linear ditches started in the Early Bronze Age, and probably continued for some time (Bradley *et al.* 1994). Linear ditches do not divide that landscape into such strongly rectilinear, coaxial, systems as those described above. Nevertheless, there are sufficient parallels for constructive comparisons to be made with the remains on St David's Head. As the authors note, construction of the linear ditches began in the Early Bronze Age, and occurred over a long period, and their use cannot be reduced to a single interpretation. It was also demonstrated, through survey and excavation, that the 'Celtic' fields of Salisbury Plain post-date the linear ditches, a feature of the prehistoric landscape that is paralleled on St David's Head between the coaxial field system and the sinuous field system.

In south Wales, a dozen or so short stony banks lying on Mynydd Llangydeyrn, Carmarthenshire, are the best published example of a relict rectilinear field system (Ward 1989). Mynydd Llangydeyrn is a

moorland ridge 2.4 km from east to west and approximately 0.5 km north to south which rises from lower-lying enclosed farmland to approximately 260 m. Altitude and the unsuitability of the thin podzolic soils which have developed on the Millstone Grit of the ridge for agriculture have undoubtedly contributed to the survival of the relict field system. Insufficient survives, however, to determine whether it was a rectilinear system of limited extent or whether it was part of a larger coaxial system. One boundary of the Mynydd Llangydeyrn system overlies a cairn containing a cist which is in the Beaker burial tradition of south Wales and another disappears beneath peat deposits, the inception of growth of which has been dated by excavation on the ridge to the centuries either side of 1000 cal BC. On the basis of these relationships, Ward suggests that the rectilinear system was laid out between the late 3rd–early 2nd and the late 2nd–early 1st millennium BC. Development of peat and peaty soils may have been a contributory factor for abandoning the fields on the ridge.

An aspect of the Mynydd Llangydeyrn system not discussed by Ward is the perpetuation of prehistoric rectilinear boundaries into modern fields. Examination of modern maps indicates that at least some extant field boundaries on either side of the ridge are on a similar alignment to those of the rectilinear system, but this might be the result of topography, with farmers from two widely different periods laying out their fields with a main axis up-slope. One area where there is no question that a coaxial field system is fossilised in the modern agricultural landscape is at Scole-Dickleburgh, on the Norfolk-Suffolk border in East Anglia. Here Williamson (1987) has dissected map evidence to reveal a coaxial system over many square kilometres. A Roman road cuts across the system providing a *terminus ante quem* for its layout, though Williamson favours a Romano-British or Iron Age origin, rather than an earlier date.

In south Wales the fossilisation of early coaxial systems in modern field patterns, similar to that at Scole-Dickleburgh, has been postulated by Kisson (1993), who has argued that the aligned and enclosed strip fields at Marorbier, Ambleston, Templeton, and other locations in Pembrokeshire, perpetuate an earlier rectilinear system. Kisson suggests settlements and fields established in the wake of the Anglo-Norman conquest and overlying the earlier fields date

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the coaxial system to the pre-12th–13th centuries AD. However, the largest of these systems – Ambleston at 5 km by 3 km – is dated to the prehistoric period on account of a Roman road which cuts across it. However, this is a Roman road by tradition only, and is not supported by archaeological evidence. This aside, Kisson's argument for large-scale agricultural management, the evidence for which is still detectable in the modern landscape, and dating to at least early historic times and perhaps earlier is valid. It is supported by other work. For instance, Murphy (1993) suggested that post-medieval fields now partially erased by a military firing range at Castlemartin, Pembrokeshire, were based on an earlier coaxial system. The author considered, given the presence of several promontory forts on the coast at Castlemartin, that the Iron Age was the most likely period for the establishment of the coaxial fields.

An aspect of all the identified coaxial field systems in Pembrokeshire that has not been commented on by previous authorities is the alignment of their main axis. This is generally within 10–15° of north, generally with a slant to the west rather than the east, though the system on St David's Head is an anomaly with a alignment 30° to the west of north. The reason for this is not clear. There seems to be no topographic necessity why field systems 30 km distant from each other should share a common alignment. In practical terms, long narrow fields of a coaxial system aligned north–south would receive more direct sunlight than those of a system aligned east–west, particularly if bounded by large hedges. That these systems had a cosmical alignment cannot be discounted (A. Fleming pers. comm.)

At St David's Head it is clear that there is some perpetuation of the relict rectilinear field boundaries into the present-day field system to the south, but this is limited in extent, and there is also evidence of extant boundaries overlying rectilinear boundaries. An examination of the wider St David's peninsular by the author during a current historic landscape characterisation project failed to reveal any further evidence of relict, perpetuated, or fossilised rectilinear or coaxial field systems. It is unclear whether they ever existed, or whether they existed but were erased by later developments. The latter is entirely possible as St David's Head has a long and complex landscape history, with much of the peninsular covered with systems of sub-divided fields down to the 17th and 18th centuries when they were enclosed into the

irregular fields that exist today. The possible origin of the small 'aggregate' fields outside the southern boundary of the survey area is briefly addressed below. Given that the search for coaxial field systems is continuing in south-west Wales, it is of interest to note that remains on Skomer Island, the best known and certainly the best described prehistoric field system in Pembrokeshire (Evans 1990), consists of a cellular, organic pattern, termed 'aggregate' by Bradley (1978).

If comparisons with other similar sites can suggest a possible date range of the 2nd–1st millennia BC for the St David's rectilinear field system, then comparisons of the associated defensive wall are less helpful, as no parallels have been identified. The discovery of a glass bead of presumed Iron Age or Romano-British date in an enclosure that had been built on the levelled remains of the wall, provides scant dating evidence; it would be dangerous to place too much emphasis on a single datable find from an insecurely stratified context. The wall encloses a large section of St David's Head (c. 25 ha) and it is logical to suggest the presence of a settlement defended by the wall contemporaneous with the wall and the rectilinear field system. Furthermore, the wall and the field system suggest a settlement of considerable status. The obvious candidate for such a settlement is Clawdd y Milwyr fort. If this suggestion is correct, then the wall acted as an outer defence for the fort, and the rectilinear field system would have comprised part of the fort's territory; all elements sharing a common origin. An alternative could be an earlier settlement, which has left no trace, lying within the area enclosed by the wall. This suggestion is tentatively supported by evidence on Salisbury Plain where there was little evidence for hierarchical settlements when the linear ditch territorial divisions were established, and, indeed, the rise of enclosed settlements and hillforts was marked by a breakdown of the linear ditch system (Bradley *et al.* 1994, 149–50).

Clawdd y Milwyr is a typical Pembrokeshire promontory fort in location and morphology, but is of atypical construction. The use of stony banks is not common in the c. 60 coastal forts of south-west Wales – earth is the preferred material. Allowing for these slight differences, the fort lies within the Iron Age tradition of the region. Archaeological investigation of the Pembrokeshire promontory forts has been limited and, apart from Baring Gould's work at St

David's Head, has rarely progressed beyond small-scale trenching unsupported by scientific dating techniques. However, recent excavations at Porth y Rhaw, 6 km to the south-east of St David's Head, demonstrated that many phases of close-packed, timber-built round-houses lay within the fort (Crane pers. comm.); radiocarbon determinations start in the 8th–4th centuries BC, while pottery indicates that a c. 11 m-diameter stone-built round-house was built and used in the Romano-British period. This latter evidence has implications for the interpretation and dating of the eight round-houses at Clawdd y Milwyr. Given that the excavations at Porth y Rhaw places coastal promontory forts firmly in the hillfort tradition, it is not unreasonable to suggest that many of the Pembrokeshire forts, including Clawdd y Milwyr, have their origin in the Late Bronze Age.

Those hut circles, enclosures, and a sinuous field system that clearly post-date the rectilinear system are also prehistoric in character. These types of site are often found in association with each other and occur, but are not common, on marginal land across Pembrokeshire, for example on Bernard's Well Mountain, Henry's Moat. But perhaps the sinuous fields and associated settlements on Skomer Island (Evans 1990) are the best parallel for the similar remains on St David's Head. When discussing these types of site without any supporting dating evidence it is wise to heed Evans's words about Skomer: 'The remains could be of any age from the Neolithic to early Roman period.'

The origin of the extant, 'aggregate', fields, which lie outside the southern boundary of the survey area and post-date the rectilinear system, is not known. It is worth noting that Herring (1994), in a review of recent work on cliff castles in West Penwith, Cornwall, cites evidence which places the origin of a irregular, cellular field system – a system not superficially different from the extant system at St David's Head – in the later Bronze Age. Most of the other archaeological remains on St David's Head seem to be of medieval date or more recent, although there is the possibility that some cultivation ridges originate in the prehistoric period. Indeed, such a date has been suggested for similar features at East Moor, Bodmin, on the basis that they are covered with a peaty soil. However, Johnson (Johnson & Rose 1994, 64) considers that all such features on Bodmin Moor should be considered post-prehistoric until otherwise demonstrated. This view is taken of the remains on

David's Head, and indeed, cultivation ridges in area A are similar to relict strip field systems recorded elsewhere in south-west Wales (Murphy 1988), indicating a medieval date. Other cultivation ridges are either associated with a small medieval or post-medieval settlement or owe their origin to 'emergency' ploughing during the Napoleonic War.

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