



The Dodman, St Goran, Cornwall Archaeological survey, evaluation and watching briefs

Cornwall Archaeological Unit

Report No: 2016R018

The Dodman, St Goran, Cornwall

Archaeological survey, evaluation and watching briefs

Client	Liz Letcher, HLS Agreement Holder
Report Number	2016R018
Date	8th November 2016
Status	Final
Report author	Fiona Fleming
Checked by	Charles Johns
Approved by	Jacky Nowakowski

Cornwall Archaeological Unit

Cornwall Council

Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

Tel: (01872) 323603

Email: enquiries@cau.gov.uk Web: www.cau.org.uk

Acknowledgements

The project was funded through Natural England's Higher Level Stewardship (HLS) Scheme, commissioned by Liz Letcher, the National Trust tenant at Penare Farm and the HLS agreement holder, and carried out by Cornwall Archaeological Unit, Cornwall Council.

Cornwall Archaeological Unit would like to thank Liz Letcher and Dick Crawford-Jones, Linda Griffiths, Mark Beard, and Hugh Tyler from Natural England's Devon, Cornwall and Isles of Scilly Area Team; Phil White, the National Trust Ranger for Dodman Point; Jim Parry, the National Trust Archaeologist; Ann Preston-Jones, Heritage at Risk Project Officer, Historic England; Nick Russell, Assistant Inspector of Ancient Monuments, Historic England; and Ann Reynolds, Senior Archaeologist, Strategic Historic Environment Service, Cornwall Council, for their support during the project. The earthwork repairs were carried out by Tom David of Naturally Green; Eric Berry, Historic Buildings Consultant, advised on the lookout turret repairs, which were carried out by Rothwell Historic Restoration.

Within CAU, the Project Manager was Charles Johns, the Project Archaeologist was Fiona Fleming. James Gossip undertook the earthwork surveys, Francis Shepherd, Ann Lawson-Jones, Carolyn Royall and Sean Taylor assisted with other aspects of the fieldwork.

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

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



Cornwall Archaeological Unit is a Registered Organisation with the
Chartered Institute for Archaeologists

Cover illustration

The prehistoric ramparts (the Bulwarks) of an Iron Age cliff castle on the Dodman, looking southwest from the fields above Penare Farm

© Cornwall Council 2016

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the publisher.

Contents

1	Summary	1
2	Introduction	3
2.1	Project background	3
2.2	Aims	3
3	Location and setting	4
3.1	Location	4
3.2	Topography, geology and soils	4
3.3	Historic Landscape Character (HLC)	4
3.4	Access	5
4	Designations	5
5	Previous archaeological and historical work	5
6	Site history	7
7	Summary of the Management Plan	9
8	Working methods	10
8.1	Desk-based assessment	10
8.2	Investigation trenches	10
8.3	Topographic survey	11
8.4	Field boundary survey	11
8.5	Watching briefs	11
8.6	Post-fieldwork	12
9	Archaeological results	13
9.1	Excavations	13
9.1.1	The medieval field system (MCO20853)	13
9.1.2	The earthworks (NT96899)	19
9.2	Watching briefs	24
9.2.1	The water pipeline	24
9.2.2	The erosion repairs	31
9.2.3	Fencing and gateposts	33
9.2.4	Repairs to the watch house lookout platform	35
9.2.5	Clearance around the watch house enclosure	35
9.2.6	Installation of new fingerposts on Dodman Point	35
9.3	Surveys	37
9.3.1	Field boundary survey	37
9.3.2	Bulwarks survey	45
9.3.3	Earthworks survey	48
9.3.4	Gardens survey	50
9.3.5	Spring survey	51
9.3.6	Building enclosure survey	52
10	Conclusion	52
11	Future Recommendations	53

12	References	55
12.1	Primary sources	55
12.2	Publications	55
12.3	Websites	56
13	Project archive	57
Appendix 1: Table of contexts		70

List of Figures

Figure 1 Location map.

Figure 2 Site extent.

Figure 3 Trench 1, north facing section, with large capstone (102) in situ below the turf

Figure 4 Trench 1, looking west

Figure 5 Trench 2, west facing section

Figure 6 Trench 2, looking north

Figure 7 Trench 6, looking north

Figure 8 Trench 6, east facing section

Figure 9 Section drawings of the field boundaries excavated in T1-T3 and T6

Figure 10 Trench 4, east facing section

Figure 11 Trench 4, looking south

Figure 12 Trench 5, looking south

Figure 13 Trench 5, west facing section

Figure 14 Trench 5, east facing section

Figure 15 Section drawings of T4 and T5

Figure 16 Beach cobble from Pit 5

Figure 17 Trench 7, east facing section from south to north, showing the south end and field gateway, part of the central section across the inner rampart, and the north end where it crosses the interior ditch and meets Pit 2

Figure 18 Trench 8, east facing section from south to north, showing the south end and field gateway, part of the central section over the inner rampart, and the north end where it meets Pit 7

Figure 19 Trench 9, west facing section from the south end and field gateway to the centre where a buried soil surface (906) appears to have formed over an earlier earth bank

Figure 20 The edge of the interior ditch at the base of Trench 9

Figure 21 Granite fragment (unstratified) recovered from the upper levels of the interior ditch

Figure 22 Section drawings for Trenches 7-9

Figure 23 Erosion Area (E1) before, during and following repair in March, April and August 2016. The Cornish hedge adjacent to the gateway on the west side was also repaired

Figure 24 Erosion Area E2 before, during and after repair in March, April and June 2016

Figure 25 Erosion Area E3 before, during and after repair in March, April and August 2016

Figure 26 Digging postholes for the new line of fencing on the west side of Dodman Point

Figure 27 Postholes 1 to 5, dug to erect gateposts for two new gates and one existing gate leading on to the field lanes crossing the inner rampart

Figure 28 The watch house lookout platform before and during repair

Figure 29 Clearance around the watch house enclosure; finds included two fragments of early twentieth century bricks from the Carloggas brickworks

Figure 30 Postholes and new fingerposts installed along the coast path on the east and west sides of Dodman Point

Figure 31 Looking north along Boundary 3

Figure 32 Gateway in Boundary 4 with moorstone gatepost

Figure 33 Rounded angle in Boundary 4 on the south side of field 2366

Figure 34 Boundary 5, looking north

Figure 35 Boundary 6a looking west

Figure 36 Boundary 6b looking east

Figure 37 Boundary 7, the gateway looking north and the changes in stonework styles either side of Boundary 16, looking west

Figure 38 The southern end of Boundary 8, with boundary stone

Figure 39 The east and west faces of boundary 10

Figure 40 The south side of boundary 12 at its eastern end, and the fenced dogleg at its western end

Figure 41 An eroded section across boundary 13 and a section of the south face showing coarse Jack and Jill stonework and capstones and one of the lateral piers

Figure 42 Boundary 14 showing different styles of stonework and evidence for repair. The west end of boundary 14 curves round to meet boundary 3

Figure 43 Boundary 15 showing different stonework styles and evidence of repair. A worked stone at the eastern end may have been incorporated to serve as a drain

Figure 44 Boundary 16, now reduced to a low earth bank in places but with some sections of stone facing. There are several large stock breaks along its length

Figure 45 The spring on the west side of Dodman. A terrace in front of the spring is deep in boggy vegetation and a fallen jamb stone now lies in front of the niche

Figure 46 Extract from John Norden's map of Powder Hundred c1650 showing a beacon on Dodman Point

Figure 47 Extract from a Mount Edgecumbe estate map (CRO ME/2421) dated c1755-6 showing the apportionment of holdings fossilising medieval strips. Reproduced by permission of the Cornwall Records Office, Truro

Figure 48 OS First Edition map c1809 showing three possible buildings on the site of the Watch House and Signal Station

Figure 49 Extract from the 1842 Gorran parish Tithe Award map showing the survival of the medieval strip holdings within the nineteenth century tenant holdings

Figure 50 First Edition of the Ordnance Survey 25 Inch Map, c1880.

Figure 51 Second Edition of the Ordnance Survey 25 Inch Map, c1907.

Figure 52 Location of excavation trenches 1-6.

Figure 53 Boundary numbers and Rural Land Register Land Parcel numbers used in the text

Figure 54 Location of pits and trenches dug during installation of a new water supply

Figure 55 Location of erosion repairs on the western end of the Bulwarks. The locations of areas E4 to E12 are approximated

Figure 56 Location of new and replaced fencing and wooden field gates

Figure 57 Suggested relationship of possible medieval or post medieval drove way, spring and field lanes to the south of Penare

Figure 58 Survey drawing of the western section of the Bulwarks, with attached images. Profile 1 is included as a separate drawing (Fig 61) below

Figure 59 Survey drawing of the central section of the Bulwarks with attached images. Profile 2 is included as a separate drawing (Fig 61) below

Figure 60 Survey drawing of the eastern section of the Bulwarks with attached images. Profile 3 is included as a separate drawing (Fig 61) below

Figure 61 Profiles taken across the western, central and eastern sections of the Bulwarks

Figure 62 Survey drawing of the earthworks on the east side of Dodman Point with attached images

Figure 63 Survey drawing of the gardens at Dodman Horse with attached images.

Abbreviations

AEL	Anciently Enclosed Land
AONB	Area of Outstanding Natural Beauty
CAD	Computer Aided Design
CAU	Cornwall Archaeological Unit
CCRA	Cornwall Committee for Rescue Archaeology
CIfA	Chartered Institute for Archaeologists
CRG	Coastal Rough Ground
CRO	Cornwall Record Office
EDM	Electronic Distance Measurement
GIS	Geographical Information system
HE	Historic England
HER	Cornwall and the Isles of Scilly Historic Environment Record
HLC	Historic Landscape Characterisation
HLS	Higher Level Stewardship
MCO	Monument number in Cornwall HER
MSL	Mean Sea Level
NGR	National Grid Reference
NMP	National Mapping Programme (Historic England project in which all sites visible on aerial photos are mapped to scale)
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey
PROW	Public Right of Way
REL	Recently Enclosed Land

1 Summary

This archaeological report details the results of Stage Two management at Dodman Point, Goran, Cornwall, funded through Natural England's Higher Level Stewardship (HLS) scheme, commissioned by Liz Letcher, the HLS Agreement Holder and carried out by Cornwall Archaeological Unit (CAU) in 2015/16. The holdings covered by the Management Plan are owned by the National Trust and lie within an area of great significance for its archaeology, with a range of features and finds exhibiting considerable time-depth being contained within the substantial earthworks of a late prehistoric cliff castle, the whole being designated as a nationally important Scheduled Monument.

The Stage 2 works were carried out in response to key priorities identified in the Archaeological Management Plan (Fleming 2014), which included bringing the Scheduled Monument off the Heritage at Risk Register (English Heritage 2014), restoring the cliff slopes to semi-improved or rough grassland, raising the historic profile of the site and increasing visitor awareness, and securing an effective long term management regime.

Scheduled Monument Consent was obtained and, following approval of the works by Natural England in August 2015, several phases of archaeological evaluation and survey were undertaken by CAU between September 2015 and October 2016. External contractors were commissioned to undertake a series of specialised tasks, comprising of: erosion repairs to the ramparts of the Iron Age cliff castle (the Bulwarks); repairs to structures within the Napoleonic Watch House complex; installation of a new water supply to the headland from Penare, the replacement/installation of fencing; and the preparation and installation of new information boards. These works were supervised by CAU and where intrusive work took place, detailed archaeological records were made.

The work also included some targeted excavation and comprehensive topographic, documentary and photographic surveys made of key sites within the monument. This has aided the revision of some previous interpretations of parts of the site as well as considerably amplifying our broader understanding of human activity on Dodman Point from the early prehistoric period through to the present day and how this has impacted on the monument as a whole. Even so, there were management works that could not be undertaken owing to the constraints of the HLS agreement, which would benefit from consideration in the light of any future management schemes. Equally, the minimal nature of some of the targeted excavation and survey work has not only demonstrated the complexity of that activity but also generated a number of further questions to be addressed if and when future schemes of works or funded research programmes allow.

The outcome of the archaeological works at Dodman Point has therefore been a greatly enhanced record of the known sites within the monument but this has necessarily been the result of keyhole exploration in some areas that would merit further investigation if and when opportunity allows. This report has consequently identified a number of management recommendations for the site as well as a number of areas that would merit further archaeological evaluation or research should future management schemes or funded research programmes present themselves. Additionally, opportunity should be made of any future monitoring works at Dodman Point to identify further areas of archaeological potential as these recommendations were based on current works undertaken and, inevitably, there will be gaps in knowledge and understanding that future works will hopefully enlighten.



Figure 1 Location map



Figure 2 Site extent

2 Introduction

2.1 Project background

This archaeological report presents the results of the Stage 2 works arising from The Dodman Archaeological Management Plan, funded through Natural England's Higher Level Stewardship (HLS) scheme commissioned by Liz Letcher, the HLS Agreement Holder and carried out by Cornwall Archaeological Unit (CAU) (Fleming 2014). The holdings covered by the Management Plan are owned by the National Trust and lie within an area of great significance for its archaeology, with a variety of monuments of all periods contained within the substantial earthworks of a late prehistoric cliff castle. The area is designated as a nationally important Scheduled Monument (see Figs 1 and 2 for location).

Dodman Point was entered into Higher Level Stewardship in 2013 as part of Penare Farm (HLS agreement No. AG00462831) following 20 years of management under two Countryside Stewardship Schemes. These saw the cessation of cultivation, new fencing, scrub clearance and an increase in grazing management. The 2014 Management Plan was prepared following the requirements of a brief by the Senior Archaeologist, Countryside Advice, Information and Policy Team, Cornwall Council (Reynolds 2014). The brief followed on from a HLS 'Farm Environment Plan' (HLS FEP) and Historic Environment Report prepared for the holding (Reynolds 2013), which noted the need for a management plan to address issues adversely affecting the Scheduled Monument, the condition of which was identified as being at high risk due to scrub growth and damage by erosion. The brief identified the need for effective scrub control, boundary repairs, repairs to targeted areas of erosion and the locating of any necessary infrastructure for effective grazing, such as fencing and water supply.

The methodology for Stage 2 Works was set out in a Written Scheme of Investigation (Johns 2015) and Scheduled Monument Consent was obtained. Following approval of the works by Natural England in August 2015, several phases of archaeological evaluation and survey were undertaken by CAU between September 2015 and October 2016. External contractors were commissioned to undertake a series of specialised tasks, comprising erosion repairs to the ramparts of the Iron Age cliff castle (the Bulwarks); repairs to structures within the Napoleonic Watch House complex; installation of a new water supply to the headland from Penare; the replacement/installation of fencing; and the preparation and installation of new information boards. These works were supervised by CAU and where intrusive work took place detailed archaeological records were made.

2.2 Aims

The principal aims of the archaeological fieldwork were to gain further information regarding the archaeological potential and historic development of the site and to better inform its future management. This was achieved through a series of excavation trenches positioned across selected areas of the site; a measured topographical survey of selected areas; and the supervision and recording of all intrusive management works.

The objectives were to make a detailed archaeological record of all features exposed by excavation or any of the management works and to create a measured survey of selected areas for illustration using CAD and GIS mapping. The synthesis of results is intended to enhance future understanding of the site and help inform its future management.

3 Location and setting

3.1 Location

The Dodman is a prominent and distinctive headland on the south coast of Cornwall, situated between Veryan Bay and Mevagissey Bay. Dodman Point, where the present study is focussed, occupies the southernmost extent of the headland, centred at NGR SX 0019 3962. The steep rocky sides of the promontory cliffs rise to a broad plateau of land, enclosed to the north by the large bivallate ramparts ('The Bulwarks') associated with a late prehistoric promontory fort or cliff castle. Within the study area (also the area defined as the cliff castle) there is a great complexity of archaeological sites illustrating a considerable time-depth of human activity and the whole has been designated as a Scheduled Monument (List Entry Number 1020865; formerly UID 32970) of local, regional and national importance.

3.2 Topography, geology and soils

Dodman Point is a broadly rectangular coastal promontory projecting out into the English Channel from the dissected plateau of the Roseland Peninsula. Steep-sided cliff slopes flank a level headland plateau at around 112m OD. The southern tip of the peninsula stands at 114m OD, the highest point on the plateau and the south coast of Cornwall.

The underlying geology of Dodman Point comprises sedimentary Dodman Formation siltstones and mudstones laid down in the Devonian Period, known as the 'Dodman Phyllites'; 'pale grey fine-grained slates and glossy phyllites, strongly cleaved, with many quartz veins' (Bird 1998, 92). A mantle of periglacial Head deposits covers the steep cliff slopes. Soils are typically brown rankers; shallow well-drained loamy soils over rock (Soils Survey of England and Wales 1983).

3.3 Historic Landscape Characterisation (HLC)

Historic Landscape Characterisation (HLC) was developed as a framework for interpreting the character of the present-day landscape through the historic processes that made it that way (Herring 2011, 107). HLC was first developed in Cornwall (Herring 1998) in the 1990s, forming the basis for all future landscape characterisation projects in Britain. HLC delineates blocks of land sharing predominant historic character and classifies them using a series of HLC 'Types' (Herring 1998; 2009). The HLC Types found on Dodman Point are given below.

'Coastal Rough Ground'

The larger part of the Dodman Point, including much of the headland perimeter and cliff slopes, is characterised within the HLC framework as 'Coastal Rough Ground' (CRG). This is largely semi-natural or unimproved ground having a mix of scrub, bracken, gorse and heather.

Cornwall's coastal slopes have been utilised since the Bronze Age and many of the more dramatic coastal headlands, such as Dodman, were enclosed during the Iron Age by ramparts and ditches to form 'cliff castles'. Historically, this type of ground was used for summer grazing and as a source of fuel, largely furze or peat turfs, with grazing the traditional form of land management. These agricultural and domestic uses continued throughout the medieval and post medieval periods and into the first decades of the twentieth century. Until the post medieval period most cliffs were undivided commons.

Some cliffs were the sites of mines, especially on the north coast, or quarries. Those looking out from cliff-tops to the sea have included, from at least the sixteenth century, generations of military men, coastguards, excise men, smugglers, and fishermen.

This Type is now almost entirely neglected with very little grazing, although there have been various initiatives to reintroduce grazing to coastal rough ground over the last decade or so. Long distance coastal footpaths run through the Type which is therefore quite busy in the summer months.

'Farmland Prehistoric/Farmland Medieval'

The central southernmost section of the study area, broadly encompassing the fields of the interior plateau, is characterised as 'Farmland Prehistoric/Farmland Medieval' (formerly referred to as 'Anciently Enclosed Land' - AEL) - farmland within the agricultural heartland of Cornwall whose current boundary definition was substantially formed during the medieval period and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure (Herring 1998; 2009). On Dodman Point this Type comprises the remains of a well-preserved medieval strip field system (MCO20853), the form of which is partly fossilised by post medieval Cornish hedges, stone walls or earth banks.

'Farmland: C20'

In addition, two areas within the Dodman interior are characterised as 'Farmland: C20' (formerly referred to as 'Recently Enclosed Land' - REL) - largely relating to prehistoric or medieval farmland (AEL) whose field boundaries have been substantially altered by large-scale hedge removal during the twentieth century (Herring 1998; 2009).

3.4 Access

The primary access to Dodman Point is via a Public Right of Way (PROW), which runs as a trackway south from Penare, extending out onto the Dodman plateau as a footpath leading from a gated access way at the eastern end of the cliff castle ramparts. The trackway itself continues westwards along the internal ditch between the ramparts (not a designated PROW), where it meets the section of the South West Coast Path from Hemmick Beach. The SW Coast Path runs south along the west side of Dodman Point and around the peninsular from where it runs north eastwards towards Vault Beach.

The PROW runs south and south-west across the fields on the eastern side of Dodman, accessing the area of coastal rough ground containing the Napoleonic watch house and signal station (MCO45827) and granite cross (MCO5238) on the headland. Where the steep coastal slopes remain under cover of dense coastal scrub these are largely inaccessible to visitors.

4 Designations

The cliff castle on the Dodman, and the combined archaeological sites and monuments contained within it, is designated as a 'heritage asset' of local, regional and national importance, a Scheduled Monument (List Entry Number 1020865, formerly UID 32970).

The monument also falls within the area of the south Cornish coast nationally designated as the South Coast Central Area of Outstanding Natural Beauty (AONB) as well as forming part of Cornwall's Heritage Coast (Natural England 2015).

5 Previous archaeological and historical work

NB: Sites included in the Cornwall and Scilly HER have the monument number (prefix MCO) in brackets. Sites included only within the National Trust Sites and Monuments Record have the monument number (prefix NT) in brackets.

Sketch surveys of the field boundaries and lynchets fossilising the medieval and post medieval field system contained within the enclosed area of the cliff castle were carried out by Peter Sheppard of the Cornwall Committee for Rescue Archaeology (CCRA) in the 1970s and by Ann Preston-Jones of Historic England (formerly English Heritage) in the 1990s.

A National Trust 'greyback' volume (National Trust 1986) briefly described the features then known from fieldwork and documentary evidence. The site was assessed in 2003 as part of English Heritage's Monument Protection Programme (MPP) as a result of which the area previously designated as Scheduled Monument (SAM 590) was expanded considerably (List Entry Number 1020865, formerly IUD 32970). Scheduling was previously confined to the ramparts and field system on the plateau, but did not

include the flanks; it now extends to the whole area of the headland contained within the cliff castle ramparts, together with a small strip outside on the western side. The revised Scheduling incorporates a concise description of the visible archaeological remains, including the cliff castle ramparts (presumed to be of Iron Age date but with probable post medieval modification in places), two Bronze Age barrows (MCO2549; MCO2550), a medieval field system (MCO20853), traces of quarrying (MCO45471), 'cliff gardens' (NT96915), a late eighteenth century or early nineteenth century watch house (MCO45827), and a late nineteenth century granite cross (MCO5238).

Mapping of archaeological features on the Dodman from aerial photographs was undertaken as part of the National Mapping Programme (NMP). This included the plotting of a number of lynchets and former medieval strips, together with three broadly circular features which may represent ditches associated with further barrows.

A historic and archaeological assessment was carried out for Penare Farm in 2003 (Herring 2003) as part of a stewardship scheme and for Dodman in 2008 as part of 'The Dodman and St Austell Bay Archaeological Survey' for the National Trust (Parkes 2008). An archaeological assessment and Management Plan for Dodman was carried out as part of the 2013 HLS agreement for Penare Farm (HLS agreement No. AG00462831) (Fleming 2014).

Geophysical surveys were carried out on the Dodman during the early 2000s (GSB Prospection 2004; 2005; 2006) and again in 2012 (Roseveare and Roseveare 2013). Within the area of the Iron Age cliff castle to the south of the enclosing ramparts known as 'the Bulwarks' the geophysical surveys confirmed the locations of ring ditches underlying two previously known Bronze Age barrows and revealed a penannular ditch nearby. Additional circular features revealed by the geophysical surveys may relate to further barrows, or structures or enclosures reflecting settlement activity associated with the cliff castle. A possible internal quarry ditch was located on the south side of the inner rampart of the cliff castle, with clusters of anomalies also along the south side possibly representing pits associated with settlement activities within the cliff castle.

The geophysical surveys also identified the remains of probable prehistoric field systems in fields immediately outside the Bulwarks, and of medieval and post medieval field boundaries and lynchets within the enclosed area on the headland, suggesting the earlier medieval strip field system may have extended further across the eastern side of the headland. Traces of former ridge and furrow agriculture thought to be medieval in origin were also revealed.

No formal excavations have been carried out on Dodman but a series of small-scale interventions have been carried out by CAU. A watching brief for a water pipeline trench in 2005 turned up a number of water rounded pebbles, an undated pit or ditch terminal and an undated buried burnt deposit (Kirkham 2005).

A watching brief carried out on the installation of a new lightning conductor for the granite cross on Dodman Point recovered a sizeable assemblage of worked flint tools from the excavated trench and the eroding surface of the adjacent footpath (Kirkham 2006). The assemblage indicated human activity on Dodman Point during both the Mesolithic (c 7000-4000 BC) and the Late Neolithic - Early Bronze Age periods (c 2500-1500 BC). Assessment of the flint tools suggested evidence for activities such as wood working, hunting and the processing of meat and skins (*ibid*, 14-15).

A watching brief carried out on a water pipeline trench in 2008 revealed evidence of probable post medieval re-shaping of the Bulwarks on the west side of the Dodman, although it was unable to give clear evidence for the dating and form of the initial earthworks (Kirkham 2008). The recovery of three notched stones, possibly representing roofing materials, raised the possibility of hitherto unsuspected settlement or agricultural buildings in the vicinity.

Field walking carried out on the fields immediately to the north of the Bulwarks recovered quantities of worked flint and medieval and post medieval pottery. A few fragments of undiagnostic prehistory pottery were also identified, along with a fragment of granite quernstone (Thorpe 2005; 2007).

6 Site history

Dodman Point has been a focus of human activity since prehistory. Flint scatters (NT96908) recorded on the headland reflect the presence of early hunter gatherer communities in the area who exploited the local resources and stayed long enough to work their tools and process their kill. During the early Bronze Age the headland was also used by local communities as a burial ground and the remains of two round barrows (MCO2549; MCO2550) can still be seen, the northernmost of these truncated on its east side by a later field boundary bank. Several further possible barrows (NT96883-4; NT96887-9; NT96898) have been detected during geophysical surveys of this area (GSB Prospection 2004; 2005; 2006; Roseveare and Roseveare 2013), potentially suggesting a larger cemetery group.

During the Iron Age the headland was enclosed by substantial ramparts and ditches, known locally as 'The Bulwarks', to form a cliff castle (MCO6545) about 40 ha in size. The ramparts are constructed of earth and stone and have steep sloping sides with flatter tops. The earthworks follow a slight natural slope around the north edge of the plateau on top of the headland and continue onto the steep coastal slopes below, incorporating outcrops of bedrock and natural rock faces.

There are documented local accounts of the Bulwarks being re-fortified during the Spanish Armada of the sixteenth century and the Civil War of the seventeenth century (Parkes 2008, 66; Whetter 1990, 23). Although there is currently no direct evidence to support these accounts the watching brief on the western end of the Bulwarks in 2008 did suggest some possible post medieval disturbance and/or modification of the ramparts' original form (Kirkham 2008, 15-17). Both ramparts of the cliff castle do show evidence of partial modification for re-use as field boundaries, however, with sections of surviving Cornish hedge boundaries along their tops or as facing along some sides. These modifications probably date to the eighteenth or early nineteenth centuries and may partly have served to formalise land division on the headland and partly to assist in stock control when the headland was used for summer grazing.

Geophysical surveys carried out between 2000 and 2012 (GSB Prospection 2004; 2005; 2006; Roseveare and Roseveare 2013) indicate potential evidence for occupation activity thought to be associated with the Iron Age cliff castle. There has been no excavation to substantiate this but any occupation during this time is likely to have been temporary or seasonal, rather than permanent, in nature.

During the medieval and post medieval period Dodman was principally agricultural and there are the remains of a former medieval strip field system (MCO20853) on the plateau, some of its boundaries now incorporated within, or fossilised by, later post medieval earth and stone banks. These vary in size and design, many showing evidence of repair. Several styles of stonework are identifiable and several boundary banks are crowned by projecting stone slabs.

Geophysical survey of the east side of the headland (GSB Prospection 2005) suggests the strip field system once extended over this area and the remains of low lynchets and former field boundaries are still visible to the naked eye. These probably reflect elements of both medieval and post medieval land division, with some boundaries identifiable as those shown on a Mount Edgecumbe estate map of Penare dated 1775-6 (Fig 47) and the 1842 Tithe Award map for the parish of Gorran (Fig 49). A hollow way (NT96891) is also visible on the east side of Dodman, linking the trackway up from Penare with the southern headland. At its northern end it runs between two high post medieval stone faced field boundaries. It may be of comparatively late post medieval date, however, as the geophysical survey suggests it potentially overlies the post medieval field boundaries shown on the 1775-6 Mount Edgecumbe estate map (which shows no trackway) (Fig 47). A likely explanation may be that it is associated with the route across the headland to the signal station and broadly contemporary with it. A further trackway extends from the north end of the hollow way across to some quarry pits (MCO45471) on the east side of the plateau.

Two boundary stones (MCO45828) bearing the inscription IMW have been recorded towards the south eastern corner of the plateau fields, although the location of only one of these is currently known and this is no longer in its original position. The stones probably marked a parcel of land ownership or tenancy: a possible candidate would be the Mr Williams shown as tenantry a parcel of former strips in the vicinity of the surviving boundary stone on the 1775-6 Mount Edgecumbe estate map (Fig 47).

A signal station (MCO45827) was built on Dodman Point in 1794 as part of a coastal chain supplying information on shipping movements to the navy. The station comprises a square stone-walled enclosure with iron shackles located at each corner to take the cables for a central signalling pole; the pole was lost during a storm in 1957. A small stone-built watch house and lookout platform is located on its northeast side. The signal station is thought to be located on, or close to, the site of an earlier medieval or post medieval beacon, which may have had a bonfire mound or a pole or tower for a brazier. Norden's c 1650 map of Cornwall (Fig 46) shows a beacon on Dodman Point and the Gorran parish Tithe Award map and apportionment record the field containing the signal station and watch house as Beacon Piece.

The signal station was one of the bases used in the application of OS triangulation survey; the survey of Cornwall and Devon representing an early formative stage of the work c 1800 (Parkes 2008, 66-7). The signalling pole was initially used as one of the primary triangulation points on the south coast, linked by line of sight to others such as St Agnes Beacon on the north coast and a network of others across the country. An OS 'trig point' pillar by the corner of the signal station now stands testament to this earlier function.

The crew of the signal station is recorded as comprising an officer and assistant and four men (Whetter 1990, 108). There may have been more buildings associated with the signal station at one time: three possible buildings are shown at this location on the First Edition OS 1 inch 1809 map (Fig 48), one of which probably refers to the watch house itself. The remains of one of these buildings may survive as a hollow sub-rectangular earthwork (NT96909) to the south west of the signal station, abutting the west side of the enclosure bank. The signal station was re-used by the coastguard in the mid-1830s, and again in World War I. In her collection of wartime letters, Marjorie Williams of Lamledra recalls sitting on the locker in the watch house in front of the furze fire as the coast watcher showed her his semaphore flags (Williams 2007).

By the early nineteenth century the division of land on Dodman still reflected much of the earlier medieval pattern of tenanted strips, the 1842 Gorran parish Tithe Award map and apportionment showing the intermixed holdings within Penare, which apportioned different land types and graded holdings between the local tenant farmers (Fig 49). The cliff slopes on Dodman were predominantly used for pasture and fuel resources but arable cultivation once extended further onto the cliff slopes than the current field pattern of today. In addition, at some point in time a small complex of agricultural plots or market gardens (NT96914) were created on the cliff slopes at Dodman Horse. The complex of artificial terraces and enclosures exploited the natural hollows and rock outcrops, enhancing these with sections of stone walling to create sheltered plots in the lee of the Point. Although undated, from other known examples and an understanding of this practice elsewhere in Cornwall these are likely to be eighteenth to nineteenth century in date, although an earlier origin is possible (Dudley 2003; Herring 2001). Examples of other cliff garden complexes are known from sites such as Tregiffian Cottages, St Buryan, where a series of small regular enclosures (NT92984) are thought to have been created during the late nineteenth century in response to improved rail links with urban markets up country and the increased demand for crops such as early potatoes and flowers (Dudley 2003, 19). Closer to Dodman on Ropehaven Cliffs, Trenarren, a series of rougher irregular enclosures, some with high broad banks on their downward side, are considered to be eighteenth century or earlier in origin (Herring 2001, 183).

A granite cross (MCO5238) bearing the date inscription 1896 was erected on the southern tip of the headland at Dodman as a minor daymark for shipping.

A number of post medieval quarries and extractive pits are located along the coastal slopes of Dodman.

Three circular dish-shaped hollows (NT96893-5) stand around 10m apart on the northeast side of the headland plateau. These have been interpreted as possible World War II bomb craters, although local police records of the time do not document any such incidents. Geophysical survey of this area (GSB Prospection 2005) suggests there may be more of a structure to these hollows, two of which appear to indicate a possible relationship with two north to south aligned field boundaries to their east. Furthermore, there is a suggestion that the hollow way respects or slightly clips the westernmost of these hollows, which would potentially put their date earlier than the late eighteenth century. There has been no excavation of these features to substantiate their function or provide any dating evidence.

The National Trust have managed the vegetation and scrub clearance on Dodman in recent years and there has been a more concerted programme of targeted clearance alongside the tenant farmers of Penare Farm within the last two years as a result of the Archaeological Management Plan (Fleming 2014) and HLS scheme (HLS agreement No. AG00462831). The clearance has been aimed at improving the condition of the archaeology on Dodman, which is currently on the Heritage at Risk register, and enhancing areas of the coastal grassland. The internal rampart ditch, currently used as an access track, contains sizeable puddles along its central section that are home to the rare and protected fairy shrimp (*Anostraca*). The management recommendations took this into account by suggesting reduced clearance in this area and the more general retention of some trees for shelter and landscape value. In addition to the scrub clearance programme the National Trust graze five Shetland ponies on the coastal slopes and the tenant farmers at Penare Farm currently graze their Dexter herd on the headland as part of their wider grazing regime.

7 Summary of the Management Plan

An archaeological assessment of Dodman was carried out in 2014 (Fleming 2014) with a view to preparing an Archaeological Management Plan as part of the HLS scheme for Penare Farm (HLS Agreement Number AG00462831). The assessment identified areas that required effective scrub control to reduce the risk to the archaeology as well as the need for some boundary repairs, repairs to targeted areas of erosion on the Bulwarks and the need for improvement or replacement of the grazing infrastructure, such as fencing and water supply.

The Management Plan was produced, taking into account the archaeological and ecological requirements of the site. A plan of agreed works was drawn up following consultation with the agreement holder as to what was practical and affordable within the term of the HLS agreement, with the priority being the clearance of scrub and bracken and the extension of an effective grazing regime for on-going management of the site. The ultimate aim has been to ensure that the monument is brought out of risk by the termination of the agreement in 2023.

A series of key management tasks were identified by the Management Plan. These comprised:

- Scrub and bracken clearance on the Bulwarks, maintaining some cover at the east end as wildlife shelter and to protect the fairy shrimps, and retaining some mature trees along the length of the Bulwarks for landscape value.
- Scrub and bracken clearance within the watch house enclosure, aiming to restore historic sightlines between the watch house and other key sites along the coast and inland, both near and far.
- Scrub and bracken clearance in the areas of the spring, the cliff gardens and the earthworks ahead of topographic survey and targeted small-scale excavations.
- Extension of the grazing regime on the headland to include the coastal slopes, with the aim of helping restore the grassland in these areas.

- Replacement fencing along the south side of the Bulwarks and the installation of new fencing to create a stock division on the west side of the headland.
- Replacement of the water supply onto the headland and the installation of two new water troughs.
- Repairs to the central grazing boundary on the headland (not completed).
- Repairs to areas of identified erosion on the Bulwarks.
- Repairs to the lookout platform adjacent to the watch house.

All these tasks were completed within the timeframe of the HLS agreement, with the exception of the repairs to the central grazing boundary, where only the fencing was replaced. Archaeological recording associated with the completed tasks comprised:

- Watching briefs to cover the digging of postholes for fencing and gatepost installation, the digging of trenches to take a replacement water pipeline, and the digging of postholes for installing new information boards.
- Watching briefs to cover the erosion repairs on the Bulwarks (MCO6545) and the repairs to the watch house lookout platform (MCO45827).
- Topographic survey of the Bulwarks, the undated earthworks (NT96899) on the east side of the headland, the cliff gardens (NT96915) on the southern tip of the headland, the small sub-rectangular enclosure (NT96909) on the west side of the watch house enclosure, and the spring (NT96906) on the west side of the headland.
- Site survey and digital photographic record of the medieval field system (MCO20853).
- Targeted excavation of selected field boundaries within the medieval field system and in the area of the undated earthworks.

Historic England granted Scheduled Monument Consent (S00108766) to cover all the intrusive works and the timeframe of all works was completion by 30th November 2016.

8 Working methods

All recording work was undertaken according to the Chartered Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff followed the CIfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology*. The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Staged work included the excavation and recording of investigation trenches, measured topographic survey and a photographic record of selected sites within the Scheduled Monument Area, as well as archaeological watching briefs during management works by external contractors. The methodology for all of these was set out in a Written Scheme of Investigation for archaeological recording during delivery of key Stage 2 Works (Johns 2015). All intrusive archaeological evaluation and management works were carried out under Scheduled Monument Consent (S00108766).

8.1 Desk-based assessment

In support of the practical fieldwork historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. The main sources consulted were as follows:

- Cornwall HER
- Early maps and photographs (see Section 12.1)
- Published histories (see Section 12.2)

8.2 Investigation trenches

Investigative trenches were located within two areas of the site (Fig 52) to inform their archaeological potential with a view to their future long-term management.

A total of four trenches (T1 to T3 and T6) were excavated across sections of selected historic field boundaries within the medieval field system on the headland (MCO24048). By providing cross sections through the boundaries the excavations aimed to identify boundary form, potential phasing in construction, and any observable differences between boundaries that might suggest some time-depth of land use and enclosure.

Two trenches (T4 and T5) were excavated within the undated earthworks (NT96899) on the eastern slopes of the headland. The excavations were aimed at identifying the nature of the earthworks; the relationship, if any, between these and the Bulwarks; their form and function and any possible evidence for dating.

All trenches were excavated by hand and drawn sections were made of any exposed archaeological features. Digital colour photographs were taken using a Pentax K30 18-55mm lens and Pentax GPS Unit O-GPS1.

8.3 Topographic survey

A measured topographic survey using a Total Station (EDM) was undertaken for selected areas of the site in order to create a current record of archaeological survival and condition, with a view to informing interpretation and understanding of the site and its future management.

Three extensive surveys were made of the Bulwarks (part of MCO24047; NT90140), the earthworks (NT96899) on the eastern slopes of the headland and the cliff-side gardens (NT96915) on the southern headland. Two smaller surveys included a potential building platform (NT96909) to the west of the watch house and a spring (NT96907) on the western slopes of the headland.

These surveys were carried out using a Total Station (EDM) and finished drawings were prepared using AutoCAD and Adobe Illustrator.

Supporting digital colour photographs were taken for illustrative and archive purposes.

8.4 Field boundary survey

A field survey of the field boundaries incorporated within the medieval field system, and including the immediate field boundaries enclosing this, were measured and recorded and digital colour photographs were taken for illustrative purposes and as a digital record. Each field boundary was classified by allocating a unique number for identification purposes and these, and the rural land register land parcels they relate to, are included in a base plan (Fig 53).

8.5 Watching briefs

Watching briefs were maintained during intrusive management works, which comprised:

- The installation of a new water supply
- Erosion repairs to some areas of the Bulwarks
- The digging of postholes for a new line of fencing on the western slopes of the headland
- The digging of postholes for new gates on the west side of Dodman and along the south side of the Bulwarks
- Repairs to the lookout platform and flagpole bases within the watch house enclosure

In addition to these CAU carried out two watching briefs during work undertaken by the National Trust to install new fingerposts on Dodman Point and to level the ground adjacent to the watch house enclosure in preparation for new park fencing. This work was not part of the HLS Agreement but complemented work being done under the Stage 2 works for Penare Farm.

Where trenches dug by machine to take the new water supply exposed archaeological features these were cleaned up by hand where safe access permitted and recorded by drawing sections roughly measured to 1:50 scale. Digital colour photographs were

taken for illustrative and archive use. The locations of the trenches dug as part of these works were included on a base plan (Fig 54).

The areas of erosion repair were recorded as part of the topographic survey of the Bulwarks prior to the commencement of repairs, and digital colour photographs were taken periodically over the course of the repairs. The locations of areas of erosion repair were included on a base plan (Fig 55).

Where postholes for fencing and gateposts were dug these were measured and recorded. Digital colour photographs were taken for illustrative use. The location of new or replaced fencing and gates were included on a base plan (Fig 56).

8.6 Post-fieldwork

On completion of fieldwork the project archive was prepared. This included:

- Preparation of finished measured drawings.
- Archiving of drawings, photographs, paperwork and digital files.
- Production of this report.

9 Archaeological results

9.1 Excavations

During the course of the excavations four trenches (T1-T3 and T6) were opened up over selected field boundaries within the medieval field system, their location selected to coincide with existing breaks or areas of disrepair so as to minimise the impact of any excavation. The aims were to try and identify the form of the boundaries and any evidence for changes in form or phases of construction, as well as to recover any evidence for dating, if present.

Two trenches (T4 and T5) were dug across the base of the Bulwarks and an adjacent sub-rectangular earthwork (**structure 1**). The aims were to try and identify the nature of the earthworks in this area along with any evidence for dating, structural relationship and phases of construction.

The position of each trench was recorded using a Total Station (EDM) so that it could be located on a base map (Fig 52). All trenches were dug by hand; T1 –T3 were dug down to natural, T6 to bedrock. Due to time constraints and the complexity of T4 this trench was not fully excavated to natural. Colour digital photographs of each trench were taken and sections across each trench were drawn at a scale of 1:10. There were very few finds and none securely dateable; their position and context were noted and recorded in the section drawings.

Each context was allocated a unique number and these are referred to in the text using square brackets [] for cut features, such as ditches, and round brackets () for fills and layers. Structures are presented as unbracketed numbers. A full description of all contexts is included in Appendix 1. The field boundaries referred to in the text have been individually numbered for identification purposes (Fig 53).

9.1.1 The medieval field system (MC020853)

Trench 1 (SX 00259 39630)

Trench 1 (Figs 3, 4 and 9) was dug on the east side of boundary 4, which runs in a north-south direction down the centre of the plateau, dividing the medieval field system to the west from the open headland to the east. This boundary has areas of very poor repair, with stone facing surviving on its eastern side along some sections and other sections reduced to low earth banks on both sides, much affected by scrub and vegetation. There is a suggestion of stone facing on both sides along some sections but this was not evident in the vicinity of T1, which comprised a 1m wide trench inserted into a section of degraded earth bank, extending broadly eastwards from the centreline of the boundary to a length of 2.65m.

From top to bottom the trench revealed a thin turf line over topsoil (101), which comprised a slightly stony greyish brown silty loam between 0.05m in depth and 0.15-0.2m where it rose over the bank. A single sherd of post medieval cream glazed pottery was recovered from the topsoil to the east of the bank (not retained). Set just below the surface of (101) at the west end of T1 was a **large slate capstone (102)** about 0.55m in length and which extended out of the north facing section; a quartz stone was set directly below this. The form of the capstone was similar to those observed along the tops of some of the hedge boundaries in and around the headland. The height of the capstone was 0.6m above natural but, judging by the height of surrounding boundaries (averaging between 1m and 1.4m in height), it had probably slipped



Figure 3 Trench 1, north facing section, with large capstone (102) in situ below the turf



Figure 4 Trench 1, looking west

from its original position as the bank degraded and slumped, resulting in overall loss of height.

Below the capstone was a deep layer interpreted as bank material, which had slumped eastwards. This comprised a stony mid reddish brown silty clay (103) between 0.2m and 0.45m deep, containing a few larger angular slate stones (0.1-0.15m) and a further fragment of quartz. Below (103) at the west end of T1 was a layer of dark reddish brown stony silty clay (104), between 0.1 and 0.35m deep, also containing a few large angular slate stones (0.1-0.15m). This layer lay above natural and was interpreted as inner bank material, possibly the remains of an earlier bank.

Underlying (103) towards the east end of T1 was a **shallow ditch [106]**, about 1m wide from east to west and about 0.2m deep. The ditch was cut into natural, with a flattish uneven base set with local slate stones. The ditch fill (105) was stony dark brown silty clay containing some medium to large (0.18-0.25m) angular slate stones. Some of these may have derived from an earlier stone facing, but there was no other evidence for this. If there was stone facing here at some point then the ditch may

have infilled during a phase of active wall collapse. Deposit (105) directly underlay (103); interpreted as a phase of bank collapse, possibly once any earlier stone facing was removed or lost.

Trench 2 (SX 00189 39531)

Trench 2 (Figs 5, 6 and 9) was dug into boundary 13 towards the southern end of the surviving medieval field system and which may at one time have been within the medieval boundaries extent. The 1775-6 Mount Edgumbe map (Fig 47) indicates that by the late eighteenth century this boundary marked the southern edge of an area of unenclosed land, although the boundary itself appears present at this time. The boundary is stone faced on both sides along much of its length with lateral capstones along the tops and stands up to 1.2m. Some sections of this boundary are in poor condition, with much evidence for slumping. A 1m wide trench was inserted into the south side of the boundary, in a section retaining a stone facing on the north side, with the south side degraded and with some slumping. The trench extended broadly southwards from the centreline of the boundary to a length of 2.2m.

The top of the **stone wall (201)** facing the north side of boundary 13 was positioned above the north east corner of T2. This comprised large angular slate stones within a non-bonded earth matrix topped by a large capstone and under thin turf (not excavated). On the south side of the boundary were the remains of an earth bank topped by thin turf over light greyish brown silty loam topsoil (202) between 0.05m and 0.15m deep. There was much loose stone on the surface, predominantly large thin angular slate stones assumed to derive from a degraded stone facing on this side. (202) was deeper (0.3m) at its southern end over the bank edge. The southern end of T2 was also topped by a layer of thin turf and topsoil (203).



Figure 5 Trench 2, west facing section



Figure 6 Trench 2, looking north

This was of similar composition to (202) and varied between 0.03m and 0.18m in depth.

Below (202) was a layer of pale yellowish brown stony silty clay (204) approximately 0.55m deep. Below (204) was a concave layer of slightly stony dark reddish brown silty clay (205) between 0.15m and 0.55m deep. Below (205) and above natural was a shallower layer of stony mid reddish yellow silty clay (206) between 0.05m and 0.15m deep. Deposits (205) and (206) were interpreted as an early (undateable) phase (or phases) of earth bank, which were subsequently heightened or modified by the addition of (205); either through the casting up of earth to maintain the bank or, possibly, in preparation for stone facing.

Below (203) at the southern end of T2 was a deep layer of dark brown silty loam (207) containing many large (0.18-0.24m) angular slate stones. This was interpreted as wall tumble, reflecting an (undateable) phase of collapse. Off centre in T2 was a **shallow ditch [209]** about 0.55m wide and 0.20m deep. This was interpreted as a possible quarry ditch associated with an (undateable) phase

of construction of the earth bank. The fill of ditch [209] was a stony very dark brown soft silty loam (208). This is likely to represent a former land surface that infilled the ditch prior to the collapse of the stone wall.

General note: there was no evidence for the remains of any stone walling below the current ground surface level. It is possible this had fallen or been robbed away before the ground level rose (the collapsed stone in (207) may incorporate some of this). From the width of the inner bank material (205) and (206), it seems likely that the stone walling was constructed on top of the earlier earth bank, possibly when ground levels were closer to their present level, suggesting a relatively late (though currently still undateable) phase of modification of the former earth bank.

Trench 3 (SW 99942 39637)

Trench 3 (Fig 9) was dug into boundary 16, the closest to the south rampart of the Bulwarks on the west side of the headland. This boundary is thought to fossilise one of the medieval strip field boundaries and currently appears predominantly as a low earth bank containing many breaks and open sections and with gorse and bracken along its tops. A 1m wide trench was inserted on the north side of the boundary at its western end, at the point where a compacted stock path crosses it. The trench extended broadly northwards from the centre point of the boundary for 3m.

From top to bottom T3 revealed a topsoil layer of light greyish brown silty loam topped by thin turf (301), around 0.1m to 0.15m deep, reducing to about 0.05m at the south end where the stock path crossed over the boundary bank. Below (301) at the southern end of T3, was a shallow layer (302) of light yellowish brown compact silty clay, which contained a concentration of compacted medium sized (0.05-0.10m) angular slate stones at the southern edge of the trench. This deposit overlay the boundary bank but although a solid edge to the bank was identified it wasn't clear whether this was a true edge or the result of natural compaction of the bank material over time or as a result of repeated stock movement across it. Explorative trowelling was unable to reveal any obvious form of an underlying earth bank as owing to time constraints this bank material was not fully excavated. Deposit (302) was interpreted as cast up earth and stone reflecting a phase, or phases, of bank maintenance.

Below (301) at the northern end of T3 and abutting the unexcavated bank edge was a slumped layer of slightly stony mid reddish brown silty clay (303), between 0.1m and

0.35m deep. This layer is similar to (103) and (205), recorded in T1 and T2, which are interpreted as collapsed make-up from an early earth boundary bank. It is likely that (303) also represents material from a former earth bank that has slumped forwards. Below (303) lay the base of a former **stone wall (304)**. The wall base measured about 0.6m deep from north to south and stood about 0.4m high. The back (south) edge was set about 0.1m away from the compacted bank edge and there was no obvious cut, although the natural below the stone wall did slope away to the north to meet a small **shallow ditch [308]**.

Ditch [308] was a small, shallow, ditch with a flat base, cut into natural. It measured about 0.3m across and was about 0.1m deep. On its north side it had laminated angular slate stones set into natural and from this edge the ground sloped upwards at around 45 degrees to the north. It was not clear whether this was a natural change in ground level or an artificial slope and continuation of **ditch [308]**. Filling **ditch [308]** and overlying the natural slope to the north was a deep layer of dark brown silty loam (307), 0.4m maximum depth and containing much large (0.18-0.25m) angular stones, interpreted as wall tumble. The deposit was thought to represent a phase of wall collapse at a point when **ditch [308]** was still open, possibly incorporating phases of boundary maintenance through the scraping back and casting up of earth and stone, resulting in altered levels of the natural (although see T6 ditch [606] below).

Below the topsoil (301) at the northern end of T3 there was a shallow layer (0.1m-0.15m deep) of slightly stony mid yellowish brown silty clay (305). Underlying this was a narrow (0.03-0.05m) layer of stoneless very dark brown silty clay loam (306). Both of these deposits abutted (303) to the south, with (306) directly overlying (307). A small worked flint was recovered from the excavation of these upper deposits but was not found in a secure context and was not retained. Deposits (305) and (306) were interpreted as former land or buried soil surfaces that naturally formed against the collapsed bank during a period of relative disuse or lower level boundary maintenance.

Trench 6 (SW 19944 39635)

Trench 6 (Figs 7, 8 and 9) was dug into the south side of boundary 16 as an extension of T3, with the aim of achieving a complete boundary profile and to learn more about the modification of a medieval strip field boundary through post medieval enclosure. A 1m wide trench was inserted to abut the south end of T3, extending south for 3.8m.

From top to bottom T6 revealed a 0.1m deep topsoil layer (601) of slightly stony and very rooty mid greyish brown silty loam topped by thin turf. Below (601) at the northern end of T6 was a very compact virtually soil free dark grey layer (602), around 0.2m deep and comprising around 60 per cent small sub-angular slate fragments. Deposit (602) was cut by a modern stock path and was interpreted as cast up bank material, reflecting a phase, or phases, of bank maintenance, subsequently compacted through stock trample. At its southern end (602) was slightly slumped over a deep layer (around 0.4m deep) of dark brown soft silty loam (603), organic and humus-rich and essentially stone-free excepting a few large stones (0.18-0.25m), thought to be wall tumble. At its base, (603) was noticeably darker and wetter to the touch.

Deposit (603) was the secondary fill of a **wide shallow ditch [606]**, which measured around 1.2m wide and around 0.2m deep. It had a wide flat base cut into natural and shallow sloping sides. At its northern end it terminated in a ledge of raised weathered bedrock abutting a vertical edge



Figure 7 Trench 6, looking north



Figure 8 Trench 6, east facing section

of compacted earth bank under a row of large **weathered bedrock stones (604)**, which appeared re-used and set to form the base of a possible stone wall. Abutting (604) and forming the primary fill of **ditch [606]** was a 0.15m-0.2m deep layer of mid reddish brown stony silty clay (605). (605) abutted the south face of (604), slumping southwards into **ditch [606]**, interpreted as slumped earth bank material, probably reflecting a phase of bank collapse following the removal or loss of a stone wall face.

Given the width of **ditch [606]** it is probable that **ditch [308]** (see T3 above) on the north side of boundary (10) was originally a much wider feature; if the **stone wall (304)** was removed then the cut of **ditch [308]** would be very close to ditch [606] in size and shape, with both having a small ledge of natural at the bank end, abutting a vertical face of earth bank. Both **ditches [308]** and **[606]** appear to have infilled relatively rapidly following a phase of wall collapse (or removal).

Below (601) at the southern end of T6 was a shallow subsoil of stony mid yellowish brown silty clay (607) between 0.05m to 0.15m deep above natural. It extended to the top edge of **ditch [606]** at its northern end where it was slightly overlain by (603). There was no evidence for (603) at the southern end of T6 and the absence of a former land surface below the topsoil (601) may indicate that (607) represented the base of a truncated former strip lynchet.

Discussion

The evidence from T1-3 and T6 indicates in all cases that boundaries 4, 13 and 16 originated as earth banks, probably late medieval or early post medieval in date, and that these were subsequently stone-faced on at least one side later during the post medieval period. In T1 and T2 earlier earth banks were recorded. The boundary (boundary 16) in T3/T6 could not be fully excavated but it is possible that an early earth bank fossilises a prior phase of medieval strip division, although it was not possible to identify the presence of any underlying baulk or lynchet.

The presence of a capstone in T1 may suggest a stone facing existed at some point on the east side of boundary 4, although there was no surviving evidence for this; the west side of boundary 4 was not investigated. In T2 there is evidence for stone walling on both sides of boundary 13, although the walling on the south side may have been built on top of an existing earth bank. As this was a boundary on the edges of unenclosed land by the post medieval period the need for a stronger boundary on the south side may not have been as great, so that a more cursory use of stone facing was employed here.

In T3/T6 there is evidence for stone walling on both sides of boundary 16. This is new information in that the fossilised medieval strip boundaries in this part of Dodman have been assumed to survive largely as decayed post medieval earth banks that were never stone-faced. The level of decay of the stone wall facing to boundary 16 may be due to reduced maintenance once there was no need to maintain them as tenanted holdings or stock boundaries under single farm management.

In all four trenches there was evidence for small shallow ditches just beyond the extent of the bank or wall footings. These may originally have been quarry ditches associated with the creation of the earth banks and subsequently been periodically cleared of earth and stone to cast up onto the bank tops to maintain them. They may also have served a drainage purpose. In T3/T6 the ditches appear to be substantially wider in form on both sides of boundary 16 than those in T1 and T2; or at least the natural ground level

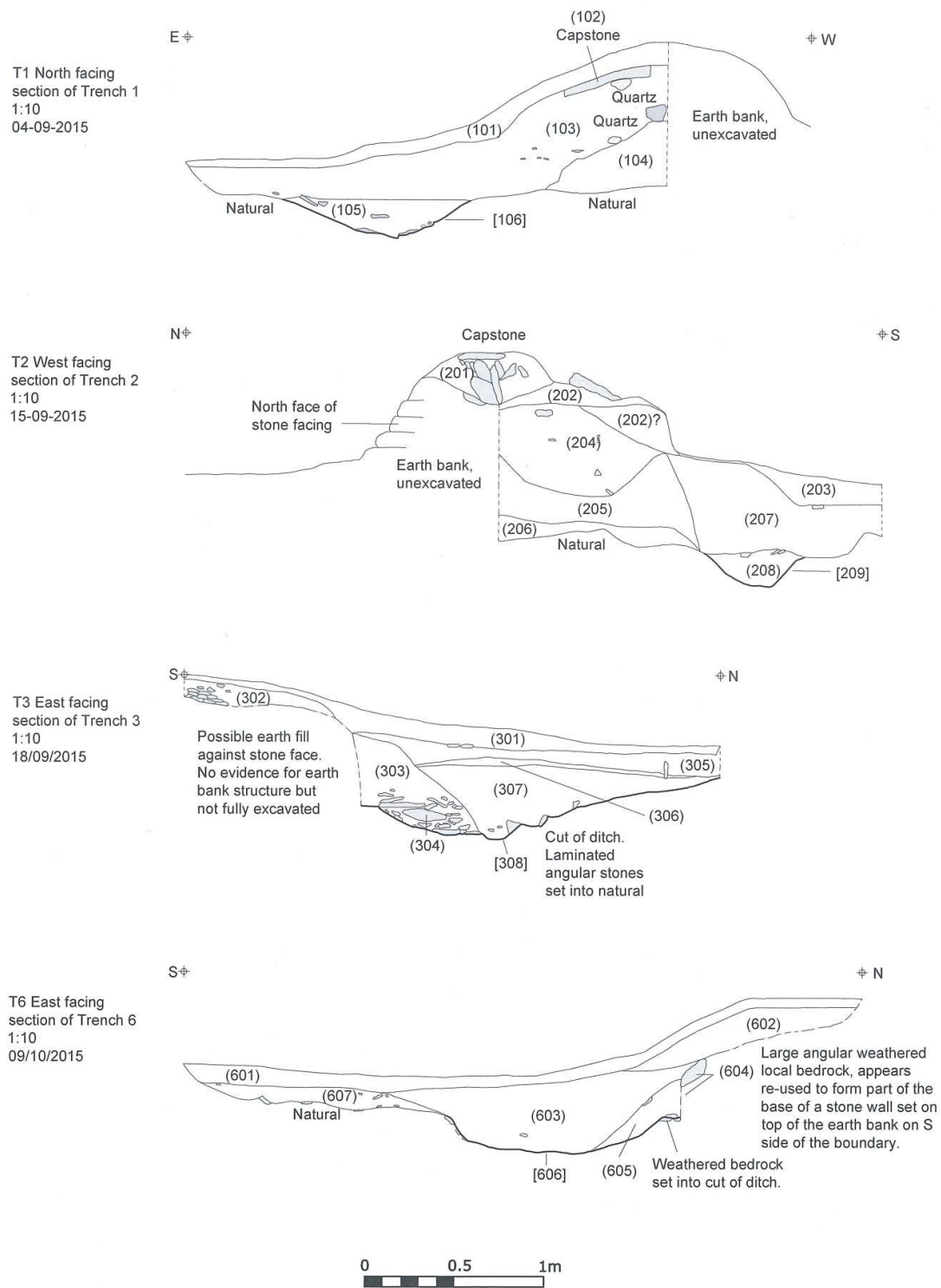


Figure 9 Section drawings of the field boundaries excavated in T1-T3 and T6

appears to have been scraped or altered. This may indicate something different occurring in this area, which might be expected from the surviving pattern of medieval strip boundaries. The wider ditches may be associated with the creation of the medieval strips; as indicated by the rise in the natural on the south side of boundary 16, which may indicate the presence of a truncated strip boundary, echoed in the upward slope of natural on the north side of boundary 16. The pattern of strips known to have survived in this part of Dodman from the 1775-6 Mount Edgecumbe estate map and the 1842 Gorran parish Tithe Award map (Figs 47 and 49) are also shown in detail on recent geophysical surveys (Roseveare and Roseveare 2013).

9.1.2 The earthworks (NT96899)

Trench 4 (SX 00344 39938)

Trench 4 (Figs 10, 11 and 15) was positioned on the south side of the Bulwarks between the base of the inner rampart and a sub rectangular hollow earthwork (**structure 1**) to the south of this. A 1m trench was dug into the base of the ramparts, extending southwards for 2.8m (for location see Fig 62).

From top to bottom T4 revealed a dark grey loamy topsoil and turf layer (401) below which was a wide and shallow lens of compact, stone free, dark yellowish 'rusty' brown silty clay (402). This lay central to and overlying two distinct but similar layers, (403) and (404). Deposit (403) was a mid to dark greyish brown silty loam, organic and very rooty, around 0.1m deep and containing much fresh sharp shillet fragments (up to 0.1m) which followed a tip line from south to north above (405). Deposit (404) comprised dark greyish brown loose silty clay loam, organic and rooty, around 0.15m deep and containing some weathered bedrock up to 0.2m. The profile of (404) sloped downwards from north to south above (407).

Both (403) and (404) underlay (401) at the south and north ends of T4 respectively and (403) slightly overlay (404) towards the centre of T4, below (402). Both (403) and (404) were interpreted as possible former land surfaces, with (404) forming subsequent to several phases of rampart collapse but pre-dating the construction of **structure 1** and with (403) post-dating the construction of **structure 1** (see T5 below).

Below (403) at the south end of T4 was a layer of slightly stony and very rooty dark reddish brown silty clay (405), about 0.4m deep at its southern extent and sloping away to the north to less than 0.05m. It was possibly intermixed with (408) towards its base and at its northern end it overlay a small indistinct lens of mid reddish brown silty clay (406) that appeared to be mixed with (404). Deposit (405) was interpreted as upcast material which formed the north side of **structure 1**, with (406) forming a possible emergence zone between (405) and (404).

Below (404) and slightly overlain at its south end by (406) was a sloping layer of very stony and rooty dark greyish brown silty clay (407), averaging 0.18m in depth and containing some larger (0.18-0.25m) angular slate stones and quartz stones. A holed stone was recovered from the south end of this context. Deposit (407) was interpreted as a possible former land surface with some tumble from the rampart to the north towards its base and intermixing with it. At its south end (407) slightly overlay a deep layer of very dark blackish brown silty loam (408), around 0.2m to 0.3m deep and containing some large (0.18-0.25) slate stones, but with stone free pockets. There were many matted bracken rhizomes present within the looser soil, to a depth of around 0.7m below current ground level. Deposit (408) was interpreted as a possible former land surface pre-dating the construction of **structure 1** and possibly forming the upper fill of **ditch [415]**, *Figure 10 Trench 4, east facing section*





Figure 11 Trench 4, looking south

following a phase (or phases) of rampart collapse.

Below (407) at the north end of T4 was a 0.2m deep sloping layer of dark reddish brown silty clay (409) containing much weathered quartz and shillet fragments and with a large slate stone at the junction with (407). Deposit (409) was interpreted as inner rampart material, having a distinct sloping profile from north to south. Underlying (409), (407) and (408) was a further sloping layer of slightly stony dark yellowish red silty clay (410), around 0.2m deep. There was a

concentration of larger (0.1-0.2m) stones towards the south end of (410) and above the edge of **ditch [415]**, which may indicate a collapsed stone revetment. The stones fell away to the south where (410) overlay (413), a secondary fill of ditch [415]. Deposit (410) was interpreted as slumped rampart material, reflecting a phase of active collapse at a time when the ditch to the south was still relatively open.

Below (410) were two further deposits interpreted as rampart materials; (411) and (412). Deposit (411) comprised slightly stony very dark reddish brown silty clay, around 0.1m deep and containing some larger (up to 0.2m) slate stones, all aligned with a tip line from north to south. Deposit (412) was not fully excavated but its upper level comprised mid reddish brown silty clay containing many medium to large (up to 0.2m) slate stones, also aligned with the slope of the bank. Deposit (412) appeared to be cut by **ditch [415]** at its south end.

Ditch [415] was not fully excavated, owing to time constraints and the fact that only its northern edge was exposed in T4, making excavation of its lower fills impractical. Below (410) towards the upper level of **ditch [415]** was deposit (413), around 0.1m in depth and comprising mid reddish brown silty clay containing many small fractured shillet fragments. Below (413) was (414), comprising stony mid yellowish red silty clay. Deposit (414) was not fully excavated but both (413) and (414) were interpreted as possible rampart material that had slumped into **ditch [415]** whilst it was still open.

Above (414) and below (408) were two further fills of **ditch [415]**, which were secondary to (413) and (414). The lower of these (417) comprised dark brown silt and decayed shillet, which contained a high density (60 to 70 per cent) of shillet blocks and some hollow voids. This was interpreted to reflect a relatively rapid phase of infill, possibly deliberate, post-dating a phase (or phases) of rampart collapse into the open, or partially open, ditch. Overlying fill (417) was a narrow (0.1m) layer of very dark reddish brown silty loam (416) containing around 30 to 40 percent crushed weathered shillet with some larger slate stone towards its northern end. A holed stone was recovered from fill (416), which was interpreted as a possible weathered surface of fill (417).

Discussion

Trench 4 revealed a complicated stratigraphy, further compromised by the relatively confined area of excavation and the inability to fully excavate some of the lower contexts. Nonetheless it indicated some evidence of the ramparts form, having an inner core of earth and local slate stone, possibly built up over several phases of construction. There is a suggestion of a stone revetment on its outer face, sitting on top of a low earth bank, and it appears to have been flanked on its southern side by a ditch, the extent and depth of which currently remains unknown. The construction of cliff castle ramparts in Cornwall demonstrates a wide variety of styles, thought to reflect the various local geologies. Stone revetments are recorded at some cliff castles, such as Penhale Point, Perranzabuloe, and Trevelgue (Nowakowski and Quinnell 2011, 386).

There followed several phases of partial collapse of the ramparts, the earliest of which appear to have partially infilled a still open ditch. The ditch may have then completely infilled during a relatively rapid phase of collapse, caused by neglect, following which a substantial land surface (408) developed over the top of it. There was probably then a further phase of partial collapse, which included some of the upper levels of the stony inner core (407) and (404). This took place before **structure 1** was built to the south of the Bulwarks. This structure remains undated but is likely to be post medieval to modern in date, potentially having been constructed anywhere between the late eighteenth and early twentieth centuries (see T5 below). However, **structure 1** was clearly old enough for at least one, and probably two, substantial land surfaces to develop prior to the modern topsoil, which may indicate a date at the lower end of this date range.

The rich dark soils apparent in (408), (403) and (404) indicate that there has been some cultivation of the soils in this area, with organic content and a degree of improvement through manuring, perhaps through animal grazing. There is no dating for this but the depth and degree of former land surfaces recorded in T4 suggest this may have been a fairly long lived activity in this area, although it was clearly abandoned before the current topsoil established itself.

The depth of bracken rhizomes indicates just how potentially damaging bracken can be to underlying archaeology – the full depth of rhizomes was not ascertained but was at least 0.7m below current ground levels. The looser and more organic buried soils may have facilitated their spread in this area but greater understanding of the potential damage to archaeology by bracken is key to the forward management of sites such as Dodman where bracken and scrub control is a primary concern.

Trench 5 (Structure 1) (SX 00340 39933)

Structure 1 appeared to be a broadly sub rectangular structure, measuring around 4m long by 3m wide. The structure was positioned against a large slab of weathered bedrock on its west side, with rough earthworks and possible walling on the north and east sides and a hollowed out interior. **Structure 1** was bordered on its south side by a cut rock terrace (see Section 9.3.3)

Trench 5 (Figs 12-14 and 15) was positioned against the large slab of weathered bedrock on the west side of **structure 1**. The aim of the trench was to identify any form and function to **structure 1**, its relationship, if any, to the Bulwarks, as well as any evidence for dating, if present. The excavation of T4 suggested that **structure 1** post-dated the Bulwarks and that it probably overlay **ditch [415]**, possibly even re-using part of the ditch (see T4 above) to create the central hollowed out area. A 1m trench was initially measured out from the southern edge of the large bedrock slab to a length of 3m.

The discussion of T5 refers to both the east facing and west facing sections, both of which were very different from each other. The east facing section of T5 from top to bottom revealed a rooty and heavily vegetated surface (501) above mid greyish brown silty loam topsoil (502), up to 0.2m deep. At the north end of T5 and below (502) was a 0.2m deep layer of **weathered bedrock stones (503)**, roughly coursed and following the plane of the bedrock. The stones abutted the **large slab of weathered bedrock (504)** on its northern edge and may have been part of the natural bedrock formation, although they had the appearance of rough walling. At around 0.6m depth the **slab of bedrock (504)** had been cut into. The **cut [505]**



Figure 12 Trench 5, looking south



Figure 13 Trench 5, west facing section

followed the western edge of the bedrock and at 2.6m along from the southern end of T5 extended north eastwards away from it at a broadly 45° angle. The north side of **cut [505]** was shallow and sloping and the base was flattish laminated bedrock, sloping slightly eastwards. Once T5 was recorded the northern edge of the cut was followed and noted to continue in a north east direction; its end was not found. The extent of **cut [505]** to the south and east was not identified, and it was not clear what form the feature took or whether it was contained by **structure 1** or pre-dated it.

At the south end of T5 the west facing section revealed a shallow turf layer (506) below which was a very narrow (0.04m) and patchy layer of possible dark black clinker mixed with soil (507). This deposit (507) overlay a 0.1m to 0.15m layer of very rooty dark blackish brown silty clay loam (508), which in turn sealed a layer of **weathered bedrock stones (509)** that looked to be re-laid. Beneath these was a rooty mid brown fine silty loam (510). The south end of T5 butted up against a vertical face of cut bedrock, which appeared fashioned to form the side of a terrace above **structure 1** to the south. A path could be seen following this cut face from the main coastal path to the west and it is possible that deposits (507)-(510) are associated with the continuation of that path along the south side of **structure 1**.

Below (509) and extending northwards across T5 below (506) was a layer of dark slightly compact blackish brown silty clay (511), deeper (up to 0.2m) at the southern end of T5 and shallower (0.05 -0.1m) over the central section of T5. A small collection of cream and green glazed china, probably late nineteenth or early twentieth century in date, was recovered from the southern end of this context. Below (511) was a shallow layer (up to 0.1m) of loose blackish brown silty loam (512) formed between large horizontally positioned angular slate slabs. Below (512) at the north end of T5 were two very shallow (0.02-0.04m) pockets of a dark yellowish 'rusty' brown silty clay (513) containing many tiny weathered slate fragments. Below (512) from the centre of T5 to its southern end was a very shallow (0.04m) layer of mid grey brown weathered shillet and rooty silty soil (514). Both (513) and (514) overlay the bedrock base of cut **[505]**.

Discussion

The evidence from T5 appears to relate to a small 3m by 4m structure partly formed by the construction of earth and stone banks against a natural face of bedrock. The date of **structure 1** is not clear, but as the upper layers within T5 ((510) and (511)) appear to indicate loamy soils containing late nineteenth to early twentieth century pottery, it might be assumed that the structure was uncovered and possibly out of use by at least the late nineteenth century. The stone laid pathway running alongside the artificial terrace to the south of **structure 1** also remains undated and its association unclear; the topographic survey of the earthworks (see Section 9.3.3) suggests **structure 1** may once have extended as far as the artificial terrace to the south and that the pathway therefore cuts through **structure 1**, but further excavation would be required to confidently



Figure 14 Trench 5, east facing section

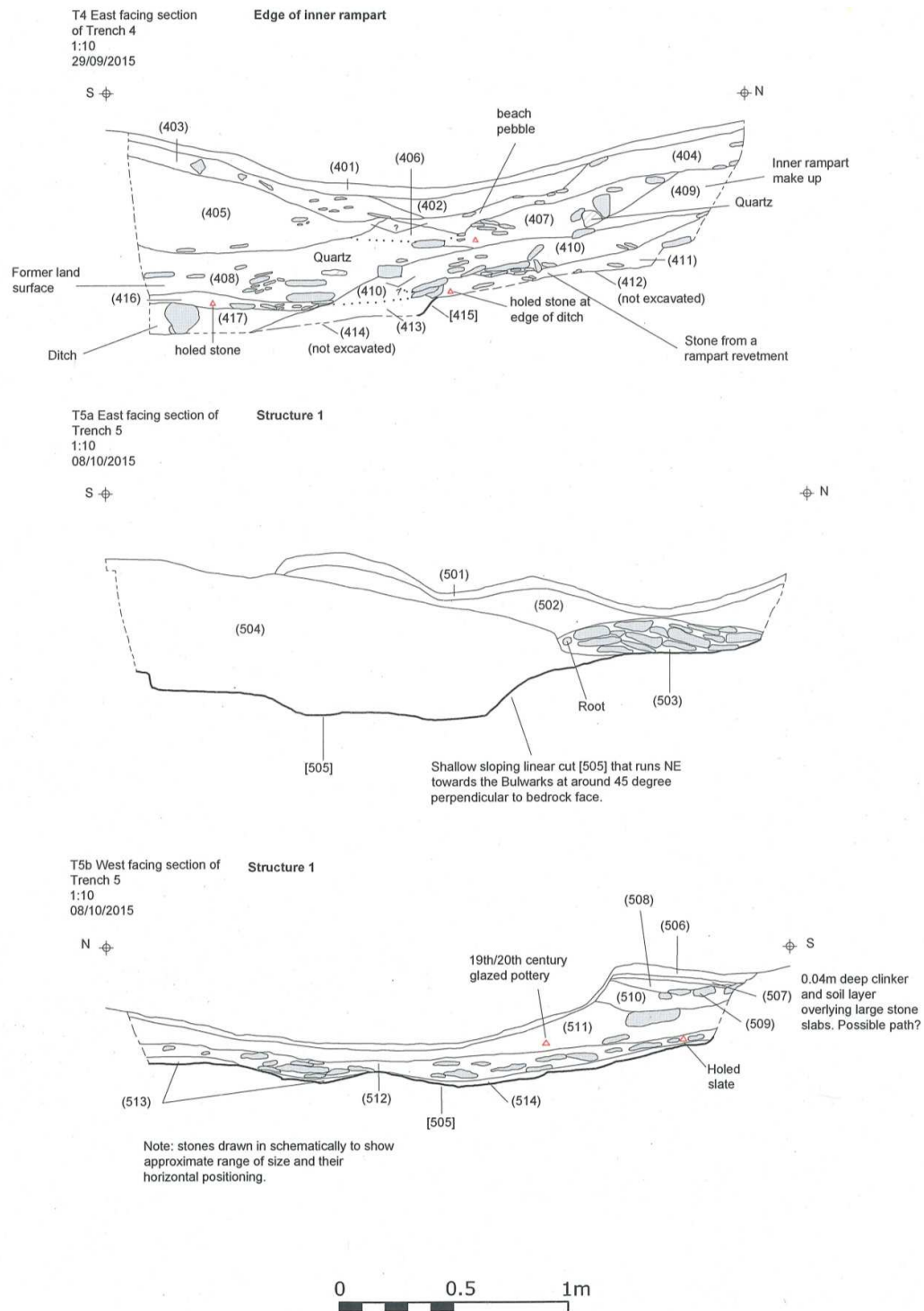


Figure 15 Sections across edge of inner (Bulwarks) rampart (T4) and Structure 1 (T5a and T5b)

demonstrate this. The thin clinker surfacing (507) on top of the stone pathway may indicate a later (undated) phase of re-use and it is possible that **structure 1** was adapted as part of this. The form and function of **structure 1** therefore remains unclear and this area would benefit from further investigation. Currently the evidence suggests a structure of mid nineteenth century or earlier date; possible contenders might include a coastguard lookout, a huer's hut, a gardener's shelter or store, a quarryman's hut, or a watch house of Napoleonic date. For further discussion of the earthworks in this area generally see Section 9.3.3.

The cut feature at the base of **structure 1** also remains poorly understood as its full form and extent could not be determined. The cut edges are very clean and do not appear to indicate quarrying, although this cannot be ruled out. The northern edge appears to continue towards the ditch feature [415] in T4, but the baulk of **structure 1** prevented further examination of the possible relationship, if any, between these two features. The orientation of the northern cut edge and the shallow depth of the bedrock in T5 suggest that feature [505] does not relate to a ditch along the south side of the Bulwarks and therefore it is possible that the interpretation of [415] as a ditch is also misleading. Clearly there are different phases and types of activity reflected in Trenches 4 and 5, which point to a far greater complexity in the below ground archaeology of this area of Dodman, and one that merits further investigation.

9.2 Watching briefs

9.2.1 The water pipeline

Over two days in October 2015 a series of pits and trenches were dug to install a new water pipeline to the animal troughs located on the north and south sides of the Bulwarks. Nine pits were dug and an underground mole was originally intended to take the pipeline from the main pipe trench crossing the northern fields to the pits and then from the pits to the troughs. Due to the nature of the bedrock and the scale of the ramparts, however, three additional narrow trenches (T7-T9) were dug by machine across the north side of the inner rampart using a 0.5m ditching bucket. The trenches were positioned to follow the edges of the historic field lanes to minimise the impact on the ramparts. These field lanes truncate the rampart profile and the excavated trenches were very narrow and varied in length. Despite the difficulties of safe access in places it was possible to observe aspects of the rampart's construction within some sections, although there were few secure finds and nothing to securely date any phases of rampart construction.

Each trench was drawn in section, broadly to a scale of 1:50, although accuracy of scale and measurement was compromised due to the difficulty of safe access and the speed of ongoing works. Colour digital photographs of each pit and trench were also taken.

Each context in T7-9 was allocated a unique number and these are referred to in the text using square brackets [] for cut features, such as ditches and pits, and round brackets () for fills and layers. A full description of all contexts is included in Appendix 1. The locations of pits and trenches and field numbers referred to in the text are illustrated in Fig 54.

Description of pits

- **Pit [1]** (SX 00016 39793): excavated depth around 0.7m. From top to bottom: slightly stony mid reddish brown silty loam (0.2m) below turf over very stony light brownish yellow silty clay (0.3m) over loose weathered bedrock, much crushed shillet and low soil content.
- **Pit [2]** (SX 00019 39786): excavated depth around 1.1m. From top to bottom: dark slightly stony reddish brown silty loam (0.6m) below turf, slightly lighter stony greyish brown loam to north edge of pit. Light brownish yellow silty clay (0.25m) below with much laminated shillet fragments above light greyish brown silty clay containing much laminated weathered bedrock and crushed shillet.



Figure 16 Beach cobble from Pit 5

- **Pit [3]** (SX 00061 39844): excavated depth around 0.5m. From top to bottom: mid reddish brown silty loam (0.2m) below turf over very stony light brownish yellow silty clay (0.3m) over light greyish brown silty clay containing much loose weathered bedrock and crushed shillet.

- **Pit [4]** (SX 00061 39845): excavated depth around 0.6m. From top to bottom: mid to dark reddish brown silty loam (0.2m) below turf over very stony mid reddish brown silty clay (0.4m).

- **Pit [5]** (SX 00202 39981): excavated depth around 0.6m. From top to bottom: mid to dark reddish brown silty loam (0.2m) below turf over quite stony mid yellowish red silty clay (0.4m) over a stony light brownish yellow silty clay. A large smooth beach cobble (Fig 16) was recovered from upper horizon of the middle layer, 0.2m below topsoil. The cobble shows signs of wear and polish that suggest various possible uses, perhaps as a whetstone or pestle.

- **Pit [6]** (SX 00204 39979): excavated depth around 0.4m. Very messy, but from top to bottom: slightly stony mid to dark reddish brown silty loam (0.2m) below turf over quite stony light brownish yellow silty clay.
- **Pit [7]** (SX 00208 39975): excavated depth around 0.6m. From top to bottom: narrow layer of mid brown silty loam below turf (0.1m) over light yellowish brown silty clay containing much laminated slatey bedrock and crushed shillet. No obvious sign of ditch fill unless the bedrock is redeposited; the bedrock stones appear quite fresh, however.
- **Pit [8]** (SX 00100 39837): excavated depth around 0.6m. From top to bottom: mid to dark brown silty loam (0.1m) below turf over slightly stony mid reddish brown silty loam, not fully excavated.
- **Pit [9]** (SX 00102 39871): excavated depth around 0.7m. From top to bottom: Slightly stony mid brown silty loam below turf, sloping from 0.1m deep at south end to 0.25m deep at north end, over a narrow layer (0.1m) of slightly stony mid reddish brown silty clay, with a sloping profile from south to north. Below this was a deeper layer (0.25-0.3m) of stony mid yellowish red silty clay, also with a slightly sloping profile from south to north. Just appearing at the base of pit 9 but not fully excavated was light yellowish grey silty clay containing weathered shillet fragments. Pit 9 is located in the gateway of field 0895 and the sloping profile of the contained layers was interpreted as reflecting part of the truncated northern rampart, which on this side has been much modified by the construction of Cornish Hedging and the insertion of field gates.

Description of trenches

Trench 7 (SX 00209 39973)

Trench 7 (Figs 17 and 23) measured approximately 16.5m in length and it was positioned along the west side of the field lane leading from the trackway between the Bulwarks into field 0172. It extended from the south side of Pit 2 across the trackway (ditch) and the northern flank of the inner rampart.

Trench 7 was not fully excavated to natural but from top to bottom revealed stone free mid greyish brown silty loam topsoil (701) topped by turf, about 0.2m deep and extending across the length of the trench. Below (701) at the southern end of T7 and extending north for around 11m was a stony mid yellowish red silty clay layer, around 0.4m deep. Below (702) at the southern end of T7 was a deposit of very loose weathered bedrock fragments (703), possibly redeposited. This was interpreted as a possible secondary phase of rampart construction or modification.



Figure 17 Trench 7, east facing section, across the central part of the inner rampart, showing possible buried soil surface (705)

Below (702) and to the north of (703) were three layers ((704) – (706)), which appeared to form part of a bank profile with a flattened (truncated) top and sloping sides. The uppermost of these layers (704) was a narrow (0.1m) band of mid yellowish red silty clay, partly overlain at its southern end by (703). Below (704) was another narrow (0.05m) layer of slightly stony and very organic dark blackish brown silty loam (705), interpreted as a buried soil surface. Below (705) was a dark yellowish red silty clay layer (706), darker towards the base and with a downward sloping profile to the north. Although not

fully excavated, this was interpreted as probable rampart material.

Abutting (706) to the north and below (702) was a layer of very stony mid to dark reddish brown silty clay (707), which appeared to have a downward sloping profile to the north, although this was rather indistinct. (707) was also interpreted as probable rampart material, potentially reflecting a secondary phase of rampart construction or modification. Abutting (707) to the north and below (701) was a stony light to mid reddish brown silty clay, around 0.2m deep, which overlay a very stony light yellowish brown silty clay (709), not fully excavated but which was interpreted as the subsoil of this area. (708) was interpreted as possible slumped rampart material but there was no obvious sign of the interior ditch in T7, unless it was very shallow at this point.

Trench 8 (SX 00014 39773)

Trench 8 (Figs 18 and 22) measured 9m in length and it was positioned along the west side of the field lane leading from the trackway between the bulwarks into field 2694. It extended from the south side of Pit 7 across the northern flank of the inner rampart.

From top to bottom T8 revealed a relatively stone free mid greyish brown silty loam topsoil (801) topped by turf, around 0.2m deep and extending for around 6.5m. Below (801) at the southern end of T8 and extending north for around 5.5m was a very stony mid greyish brown silty loam, around 0.25m deep at the southern end, reducing to 0.05m at the northern end. At its southern end (802) appeared mixed with redeposited material from an earlier modern pipe trench; several quartz fragments and a small beach pebble were recovered from this end but were not retained.

Below (802) at the southern end of T8 was a stony mid to dark reddish brown silty clay (803), around 0.5m deep and with a curved profile to the north. A concentration of large slate stones towards the southern end of (803) appeared to be *in-situ*. (803) was interpreted as possible bank material reflecting a primary phase of rampart construction. Below (802) and abutting (803) to the north was a stony light to mid reddish brown silty clay (804), similar to (803) but lighter in colour. The junction between (803) and (804) was indistinct and they might be the same or (804) may be mixed with material from (803). Both layers appear to suggest rampart material, possibly reflecting different phases of construction.

Abutting (804) at the north end of T8 and extending into Pit 7 was a confusing deposit of laminated slate bedrock stones that appeared to have slightly different soil matrices so were numbered separately; (805) and (806). Deposit (806) was intermixed with light brownish grey silty clay and was cut by Pit 9, suggesting it may have extended across the interior ditch. (806) was considered to be natural bedrock but it was unclear whether this was *in-situ* or redeposited. If natural then it suggests there was no ditch

at this point. If redeposited it may overlies lower ditch fills, which would indicate that the ditch had been infilled by the time (806) was introduced.

Deposit (805) was intermixed with mid reddish brown silty clay that may have been partly mixed with (806) and (804). Together (805) and (806) appeared to face the lower section of the inner rampart, with (803) and (804) forming part of the inner bank material. The laminated stones in (805) and (806) have a slightly sloped alignment from north to south and abut (804). It was not clear, however, whether both deposits reflected *in-situ* natural bedrock, or whether (806) was natural bedrock cut to take the base of a bank, which was then filled by redeposited material (805). Alternatively it may be that both deposits reflect natural bedrock that has been cut into or shaped somehow to form a rampart facing. Underlying (803), (804), (805) and (806) was a stony light to mid yellowish brown silty clay (807) that was not fully excavated but which appeared to be the natural subsoil of this area. The presence, or otherwise, of the ditch to the north of the inner rampart at this point was not clarified.



Figure 18 Trench 8, east facing section from south to north (above), showing the central section over the inner rampart, and the north end (right) where it meets Pit 7



Trench 9 (SX 00099 39850)

Trench 9 (Figs 19, 20 and 22) measured around 31m in length and it was positioned along the east side of the field lane leading from the trackway between the Bulwarks into field 1167. It extended from the south side of the inner rampart, along and down the field lane and curved along the northern edge of the inner rampart. The pipeline was fed into T9 by a mole from Pit 9, located in the gateway to field 0895 in the northern rampart (Fig 54).

Starting at the southern end and from top to bottom, T9 revealed a stony mid greyish brown silty loam topsoil topped by turf, around 0.15m deep. Below (901) was a stony mid brown silty clay loam (902), around 0.15m deep but extending to 0.35m deep at the southern end of the trench. Below (902) at this southern end was a slightly stony mid to dark reddish brown silty clay (903), around 0.1m deep, truncated to the north

and with a distinct downward sloping profile to the south. This was interpreted as part of the bank profile. Below (902) towards the northern end of T9 was also a slightly stony mid to dark reddish brown silty clay (904), around 0.1m deep and with a downward sloping profile from south to north. A narrow lens of (904) possibly extended across towards (903), although this was difficult to see clearly. It seems possible that (903) and (904) are the same and that they both reflect an upper layer of truncated rampart; (904) appears slumped at its northern end, possibly resulting from the insertion of the field lane. (902) formed following the truncation of the rampart by the field lane, possibly the result of soil development along the field lane or the casting up of earth to maintain this.

Abutting (903) to the north, and below (902) and (904), was a layer of loose large weathered bedrock stones (905) within mid-yellowish brown silty clay. This layer also had a distinct downward sloping profile from north to south and was interpreted as redeposited material reflecting a phase of rampart construction or modification. Abutting (905) to the north, and below (904), was a relatively stone free, very dark blackish brown silty loam (906) with high organic content, around 0.25m deep (Fig 19). This was thought to be a buried soil surface and may be the same as (705), recorded in T7. Layer (906) had a downward sloping profile from south to north at its northern end and it may have formed over an earlier bank. Layers (903), (904) and (905) are considered to potentially reflect a secondary stage of rampart construction or modification.

Below (906) was a slightly stony dark reddish brown silty clay layer containing some fragments of quartz, around 0.25m deep and with a slightly downward curving profile to the north and a downward sloping, possibly modified, profile to the south. This was interpreted as inner bank material, potentially reflecting a primary phase of rampart construction. Below (907), (906) and (904) at the northern end of T9 was a narrow layer of stony light yellowish brown silty clay (908), not fully excavated but which appeared to follow the downward slope of the field lane and was interpreted as the natural subsoil of the area.

Where T9 curved around the base of the rampart it exposed the southern edge of the interior ditch (Fig 20). From top to bottom it revealed a slightly stony mid reddish brown silty loam topsoil (0.2m) below turf (901), below which was a deep layer (0.9m) of mid to dark reddish brown silty clay containing many loose slate stone, some large and appearing slightly weathered (>0.2m). This layer may have been a mix of (902) and (904). It appeared darker towards the base. A large granite slab was recovered from this layer (Fig 21). The slab was roughly cut, with no visible markings on it but possibly dressed on at least one end and with a notch cut into one side. It seems likely that the slab is part of a former gatepost as there are several surviving granite gateposts in the area.

The edges of the trench could not be properly accessed or cleaned and the edge of the ditch was not observed. The ditch was not fully excavated but bedrock may just have been observed at a depth of 1.3m.

Trench 9 was not fully drawn along its whole extent as access was difficult and unsafe in places.



Figure 19 Trench 9, west facing section showing a buried soil surface (906), which appears to have formed over an earlier earth bank



Figure 20 The edge of the interior ditch at the base of Trench 9



Figure 21 Granite fragment (unstratified) recovered from the upper levels of the interior ditch

Discussion

Despite the difficulty of access to trenches T7-T9 it was possible to observe aspects of probable rampart construction in all three. Although currently undated there potentially appears to have been multiple phases of construction and modification, with a long enough period between two of the construction phases for a highly organic soil layer to develop before being subsequently buried.

The earliest phases of construction appear to have consisted of earth and stone banks, which were constructed upon the natural break in slope to accentuate height. On the southern side of the inner rampart there appears to have been a secondary phase of modification or strengthening using local bedrock stones thrown up against the existing bank. On the north side of the inner rampart a secondary phase of construction may have included the creation of a vertical lower scarp, either through cutting in to the bedrock face or depositing bedrock stones against the existing bank. Excavation of an earlier pipe trench at the western end of the Bulwarks in 2007 (Kirkham 2009) also exposed a scarp of natural bedrock on the lower north face of the inner bank, which was potentially artificially made, probably having been cut to form a vertical face (*ibid*, 15; Fig 10). It is not clear whether the use of stone on both sides of the inner rampart reflect one contemporary phase of modification or two separate ones. By the early nineteenth century the modified earthworks had been truncated in places through the insertion of the field lanes, following which there may have been a phase of management or repair through the casting up of earth (possibly comprising slumped bank material) to maintain these.

The interior ditch between the ramparts may not have been at a consistent depth along the length of the ramparts but where it was present it appears to have exceeded a depth of 1.3m. If the apparent lack of a ditch along the north edge of T8 is accurate it may reflect a causeway associated with an entrance into the cliff castle; the trackway from Penare joins the ditch close to this point and the gateway into field 2694 appears to have modified a once wider gap in the inner rampart (see Section 9.3.3). This may suggest an entrance. Without further investigation it is impossible to know whether the ditch was continuous beyond this point. Even at the present day the interior ditch contains visible raised sections along its length in both directions. Whether these are associated with the initial (i.e. probably Iron Age) construction of the Bulwarks or are a feature resulting from continuous subsequent re-use is not known; Parkes (2008, 31) documented similar features observed at some other Cornish cliff castles, which are thought to potentially reflect different stages of rampart construction (and see Nowakowski and Quinnell 2011, 386-389).

Although previous excavation and survey (GSB Prospection 2004; Kirkham 2008) has shown the presence of a possible ditch on the southern side of the inner rampart this was not revealed during this watching brief.

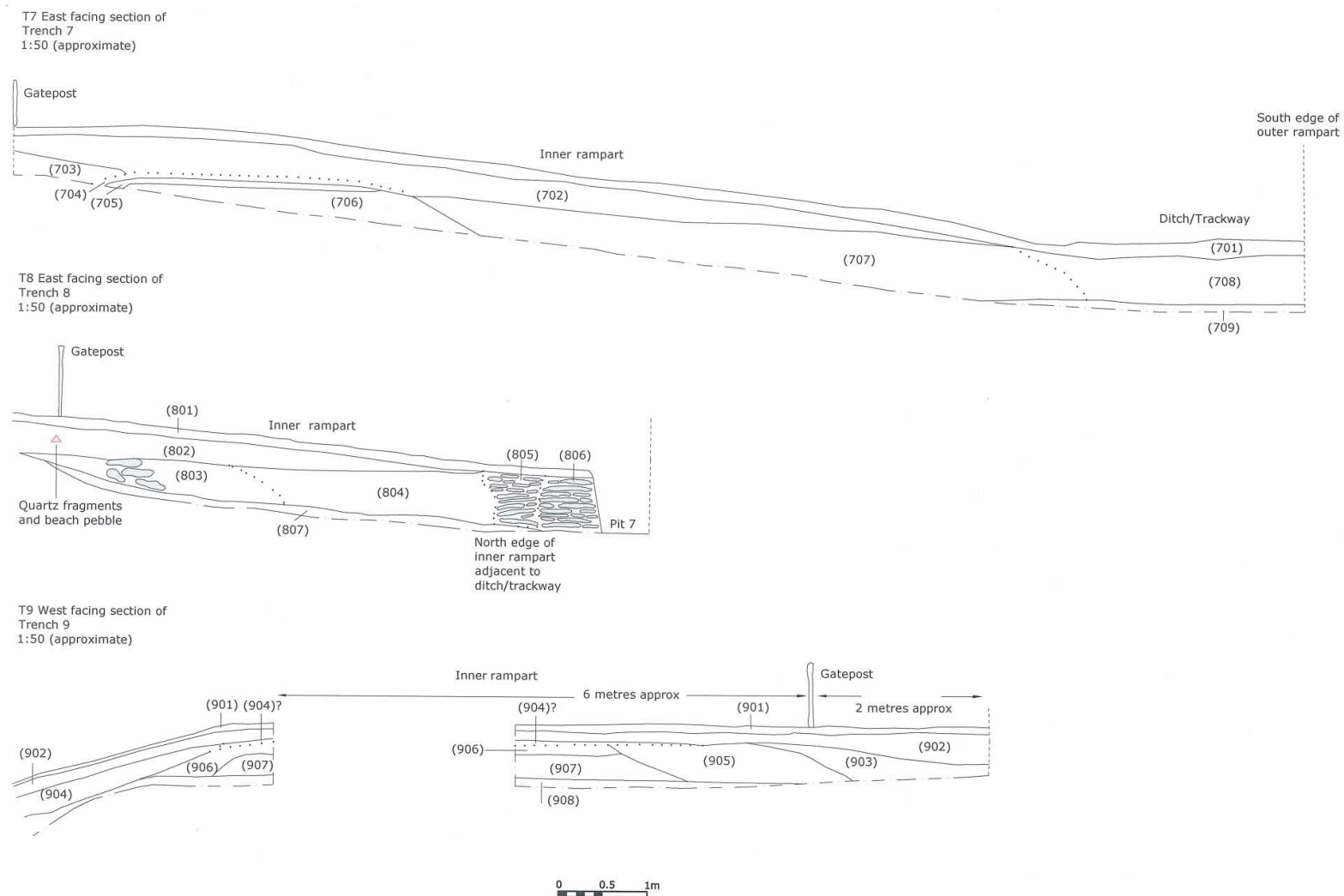


Figure 22 Section drawings for Trenches 7-9 (Locations of trenches are shown on Fig 54)

9.2.2 The erosion repairs

Three areas of severe erosion (E1 – E3) were originally identified towards the western end of the Bulwarks, on the south side of the inner rampart and on a section of inner rampart adjacent to the coastal path (Fig 55). These were repaired by Tom David of Naturally Green over a two week period in April 2016 using the method agreed as part of the HLS scheme. Locally sourced shillet was used to pack the eroded areas, followed by hessian sandbags filled with local soil and mixed seeds to achieve an acceptable contour. Turf was then taken from the field margins to the north of the Bulwarks and this was pegged over the sandbags using locally cut gorse and blackthorn. There were no intrusive works or digging out from eroded areas.

Following a site visit to assess the repairs following further vegetation clearance, some additional areas of erosion were identified along the western extent of the inner rampart (Fig 55). These were repaired over a two week period in June 2016 using the same method as before.

Prior to both phases of repair digital photographs of the eroded areas were taken and these were also included as part of the topographic survey of the Bulwarks carried out in March and early April 2016 (see Section 9.3.3). The repairs were periodically inspected and digital colour photographs taken at interim stages and following completion of the repairs (Figs 23-25). On final inspection in June 2016 the repaired areas were responding well, with vegetation regrowth quickly hiding the scars. Inspection in September 2016 revealed some slippage, probably the result of heavy rainfall or animal burrowing, which was duly repaired.

NB. *The eastern end of the Bulwarks is likely to contain areas of erosion that would also potentially merit repair at some future date. The Archaeological Management Plan (Fleming 2014) recommended that a greater level of vegetation cover should be retained in this area as a shelter for wildlife and consequently it was not possible to address any erosion needs as part of the Stage 2 works. Any future scheme would be recommended to consider this as part of an effective ongoing management regime.*



Figure 23 Clockwise, Erosion Area (E1) before, during and following repair in March, April and August 2016. The Cornish hedge adjacent to the gateway on the west side was also repaired

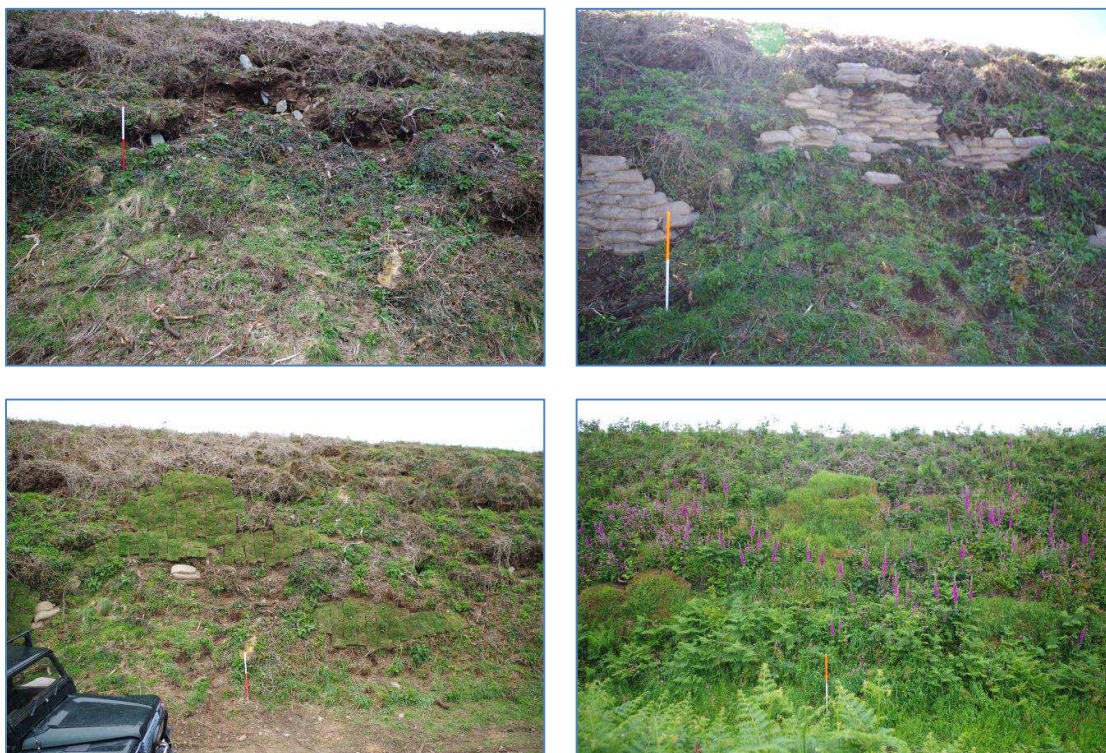


Figure 24 Clockwise, Erosion Area E2 before, during and after repair in March, April and June 2016



Figure 25 Clockwise, Erosion Area E3 before, during and after repair in March, April and August 2016

9.2.3 Fencing and gateposts

As part of the Stage 2 works some sections of fencing along the south side of the Bulwarks were replaced and a new fence line erected along the north side of the Bulwarks, on the western coastal slope (Fig 56); the position of this new fence line was altered from its first intended position on the south side of the Bulwarks (Fleming 2014, Plan 3, B2). Existing fencing along the central grazing boundary (boundary 4) was also replaced. Two wooden gates were replaced on the south side of the Bulwarks and a new gate positioned within the new fencing line on the western coastal slope.

Three watching briefs were carried out in July, August and September 2016 to monitor the digging of new postholes to take fence and gate posts. Descriptions of soil stratigraphy were made and digital colour photographs of each posthole were taken. There were no finds from any of the postholes.

Fencing

Four postholes (Fig 26) were monitored on the western slopes on July 18 2016 in preparation for a new line of fencing:

- **Posthole [1]** (SW 99908 39769): depth 0.92m, containing mid reddish brown friable silty clay with frequent small to medium stones.
- **Posthole [2]** (SW 99858 39740): depth 1.02m, containing mid reddish brown friable silty clay to 0.8m, slatey stones to 0.9m, mid reddish brown friable silty clay to base.
- **Posthole [3]** (SW 99821 39725): depth 1.07 and situated on top of a north to south break of slope (possible earth bank but difficult to see either side because of thick vegetation cover), containing mid reddish brown friable silty clay.
- **Posthole [4]** (SW 99789 39703): depth 0.92m and situated on cliff edge, containing light yellowish brown friable silty clay – probable head material.



Figure 26 Digging postholes for the new line of fencing on the west side of Dodman Point

Gateposts

The excavation of five postholes (Fig 27) was monitored during August 2016 in preparation for hanging two new gates and providing a fixing post for a third existing gate. The postholes were dug on the south side of the inner rampart at the head of three of the field lanes:

- **Posthole [1]** (SX 00015 39768): on east side of gateway, south side of inner rampart, depth 0.95m, containing mid greyish brown silty loam topsoil and turf to 0.12m, stony light reddish brown silty loam to 0.39m, loose large sub angular slate stone within a light greyish brown powdery silty soil to 0.94m, stony dark reddish brown silty clay containing much small crushed shillet fragments just exposing at 0.94m.
- **Posthole [2]** (SX 00012 39766): on west side of gateway, south side of inner rampart, depth 0.84m, containing redeposited loose large slate stones (disturbed by earlier water pipe trenches) within mid brown silty clay loam to 0.45m, slightly stony mid reddish yellow brown silty clay with some crushed shillet fragments and shillet blocks to 0.84m.
- **Posthole [3]** (SX 00167 39912): on east side of gateway, south side of inner rampart, depth 0.9m, containing mid greyish brown silty loam topsoil and turf to 0.2m, slightly stony mid reddish brown silty clay loam to 0.85m, loose large sub angular slate stones just exposing to 0.9m.
- **Posthole [4]** (SX 00165 39909): on west side of gateway, south side of inner rampart, depth 0.82m, containing mid greyish brown silty loam topsoil and turf to 0.22m, stony mid reddish brown silty clay loam with some larger blocky shillet stones towards base at 0.75m, stony layer exposing at 0.72cm, not examined but appears to be local bedrock stones, loose in places with voids around edges of posthole, visible to depth of 0.82m.
- **Posthole [5]** (SX 00212 39973): on east side of gateway, north side of inner rampart, depth 0.95m, containing slightly stony, dark brown silty loam topsoil and turf to 0.15m, stony mid reddish brown silty clay loam to 0.35m, very stony light reddish brown silty clay with greyish hue and containing frequent medium to large slate stones and crushed shillet fragments to 0.9m, soft dark reddish brown silty clay just exposing at base to 0.95m.



Figure 27 Postholes 1 to 5, dug to erect gateposts for two new gates and one existing gate leading on to the field lanes crossing the inner rampart

Two further postholes were monitored during September 2016 in preparation for a new gate to be installed on the western coastal slope. Both postholes were similar in form and depth to those dug for the fence posts and no finds were recovered from these.

NB: The monitoring of the postholes excavated on Dodman returned very little information comparative to the time allocated to these. For future projects of this kind it might be worth considering whether the time spent is justifiable to the final outcome.

9.2.4 Repairs to the watch house lookout platform

Repairs to the lookout platform and flagpole bases within the watch house enclosure were monitored during late September/early October 2016. The repairs were undertaken by Shaun Rothwell of Rothwell Historical Restoration. The iron loops on the flagpole bases were cleaned of rust and a rust-proof paint applied. Ivy was cleared from the lookout platform and loose pointing removed. New lime-based pointing was then applied and the whole structure painted with a lime wash finish (Fig 28).

NB: The lime wash finish to the lookout platform should be reapplied annually to maintain it, as this type of finish washes off very easily. Although the watch house could not be repaired under the current HLS scheme the repairs to the lookout platform highlight the need for this under future schemes, as there is now a very distinct contrast between the two structures.



Figure 28 The watch house lookout platform before and during repair

9.2.5 Clearance around the watch house enclosure

Clearance around the exterior of the watch house enclosure boundary was monitored during October 2016 ahead of the installation of park fencing to protect the enclosure once the Penare Dexter herd are introduced into that area. The work was carried out by the National Trust and volunteers (Fig 29).

Vegetation around the watch house enclosure had been cleared previously to the works, which were targeted towards the removal of earth build up around the enclosure perimeter and to level the ground prior to fencing. A number of finds were recovered during the works, including a St Austell Brewery bottle, an iron kettle and two fragments of brick from the Carloggas brickworks near Nanpean. The brick mark 'Carloggas' was adopted from around 1932 (Ferguson and Thurlow 2005, 77). The finds were generally considered to be twentieth century in date and were not retained.

9.2.6 Installation of new fingerposts on Dodman Point

New fingerposts were installed on Dodman Point by the National Trust during October 2016, on the east side of the headland on the coastal path between Dodman Point and

Gorran Haven, and on the west side of the headland on the coast path between Dodman Point and Hemmick Beach (Fig 30). Two postholes were dug to take the new posts. The posthole on the west side of the headland was placed in the inner ditch of the Bulwarks and hit bedrock at 0.7m.



Figure 29 Clearance around the watch house enclosure



Figure 30 Postholes and new fingerposts installed along the coast path on the east and west sides of Dodman Point

9.3 Surveys

9.3.1 Field boundary survey

A field survey was carried out over three days in September 2015 in order to assess the condition of the field boundaries on Dodman Point and to make a documentary and digital photographic record of these. This method of recording was agreed on as the repair and consolidation of these boundaries was economically and practically beyond the scope of the Stage 2 works.

Each boundary was allocated a number (see Fig 53) and a written description and digital photographic record of each boundary was made. Boundaries 1a, 1b and 2 comprise the Bulwarks and are covered in Section 9.3.3. Field numbers refer to the Rural Land Registry land parcels. Boundaries 3 to 18 are described below.

Boundary 3 – (SW 99894 39719 – SX 00094 39434)

Boundary 3 runs along the west side of the headland and divides the present day field system from the coastal slopes. The northern extent of boundary 3 is shown on the 1775-6 Mount Edgecumbe estate map as running across fields 0172 and 0467 on the south side of the Bulwarks, which at that point were further sub-divided and continued farther down the cliff slopes (Fig 47). It then ended at the junction with boundary 15 but now continues to the junction with boundary 13.

The northern section of boundary 3 is fenced between the Bulwarks and the junction with boundary 15, where a stone-faced retaining wall around 1.2m high is introduced against the break in slope, the fencing continuing above this. Between the ends of boundaries 14 and 15 the predominant style of stonework is Jack and Jill herringbone style, with some lateral capstones present along the top edge. The walling is generally in good condition. Between the ends of Boundaries 13 and 14 the stone walling varies in height between 1.3 and 1.75m and the style of stonework comprises coursed uprights with some piers of lateral slate stones present and placed lateral capstones along the top edges (Fig 31).



Figure 31 Looking north along Boundary 3

Boundary 4 – (SX 00257 39887 – SX 00221 39554)

Boundary 4 now forms the principal grazing boundary on Dodman and extends from the stile by the walled hollow way onto the headland as far as the junction with boundary 9 towards the southern end of the headland. This boundary is partially present on the 1775-6 Mount Edgecumbe estate map (Fig 47), excepting a section at its southernmost end. By 1785 boundary 4 was bordered on the east side by a series of enclosures of variable size, which now survive only as low lynchets.

Boundary 4 is generally in very poor repair and with many sections that are badly eroded. There is thick vegetation cover in places, largely gorse and blackthorn. The boundary is fenced on both sides with post and wire fencing, also in poor condition. Boundary 4 was scheduled for repair and re-fencing as part of the HLS agreement Stage 2 Works, but only the fencing was carried out during the timeframe of works (Section 9.2.3).

Boundary 4 extends along the edge of several land parcels on Dodman and its style varies along its length:

Along the east side of field 2389 boundary 4 crosses one of the two surviving Bronze Age barrows (MCO2549). It is around 1.2m high on its east side at this point and comprises a stone wall formed of coarse upright stones. On the west side it ranges between 0.1m and 0.6m high where it crosses the barrow. Dense blackthorn is present on this side, obscuring the boundary form.

On the south side of field 2389 the banks are around 0.3m high, worn almost to earth bank but with some stone present to indicate former stone facing on both sides. An opening in the boundary now permits access to field 2389. There is dense gorse cover on the eastern end.

On the east side of field 1883 boundary 4 appears to have a stone facing of upright stones on both sides, with placed capstones visible along the top on some sections. There is dense vegetation obscuring much of this boundary. A gateway into field 1883 has rounded ends of lateral slate stones and a moor stone gatepost with iron hinges (Fig 32). The northern wall end is showing signs of erosion and there is some wall tumble generally along this section.

On the south side of field 1883 boundary 4 is stone faced on both sides and ranges between 0.7 and 1.2m in height. The eastern section of walling is tightly coursed upright slates, which changes to Jack and Jill herringbone style towards the centre and then reverts to coursed upright slates and some more rounded stones at the western end. Some reset capstones are visible towards the western end and some lateral piers comprising horizontal slate stones are visible on the north side. There is generally very dense vegetation covering much of this section, predominantly gorse and blackthorn.

On the east side of field 2366 boundary 4 is largely reduced to a low earth bank, badly eroded and subject to animal burrowing but with some evidence of coursed upright stone walling on the east side. There is no evidence of a stone facing on the west side although dense vegetation hides much of this side. Towards the northern end of this section the boundary reaches around 1m high and some lateral capstones are visible along the top. A former gateway into 2366 at this end is now blocked by vegetation of gorse, blackthorn and bramble.



Figure 32 Gateway in Boundary 4 with moor stone gatepost



Figure 33 Rounded angle in Boundary 4 on the south side of field 2366

At the south end of field 2366 boundary 4 forms a rounded angle comprising stone facing of coursed uprights on both sides, around 1.3m high and with large lateral capstones still in situ (Fig 33). The stone walling continues to the junction with boundary 8.

The southwest section of Boundary 4 is post and wire fencing and dense vegetation. This section is shown as open on the 1775-6 Mount Edgcombe estate map (Fig 47) and the OS Second Edition 1907 map (Fig 51).

Boundary 5 (SX 00254 39892 – SX 00313 39937)

Boundary 5 extends along the south side of field 2694. It is shown on the 1775-6 Mount Edgecumbe estate map as the north side of two rectangular enclosures, now surviving as low lynchets to the south (Fig 47). It stands between 0.8m and 1m high and comprises stone facing of small upright slate stones on both sides with capstones along the top (Fig 34). There is much vegetation along both sides, largely gorse and bramble, and a break has been made in the centre to create stock access. There is some wall tumble and some erosion breaks at the eastern end.



Figure 34 Boundary 5, looking north

Boundary 6a (SX 00109 39841 – SX 00205 39754)

Boundary 6a extends along the west side of field 1883, from the Bulwarks to the northern junction with boundary 4. The boundary may be shown on the 1775-6 Mount Edgecumbe estate map (Fig 47) and 1842 Gorran parish Tithe Award map (Fig 49), both of which suggest former strip field boundaries here. Boundary 6a stands 1.2m high and comprises stone walling on both sides. The style of stonework varies along its



Figure 35 Boundary 6a, northern end looking west

length, alternating coursed slate uprights and Jack and Jill herringbone, with lateral piers of horizontal slate stones at intervals, particularly visible at the northern end (Fig 35). No capstones are visible. A gateway between fields 1883 and 1167 has rounded ends of narrow upright slate stones, with protruding stones on the southern gate end now supporting a wooden gatepost. There is dense vegetation, largely gorse and blackthorn, along much of the boundary, with evidence of animal burrowing.

Boundary 6b (SX 00185 39931 – SX 00230 39841)

Boundary 6b extends along the east side of field 1883 as far as the northern junction with boundary 4 at the corner of field 2694. The boundary is shown on the 1775-6 Mount Edgecumbe estate Map (Fig 47). It currently stands to around 1.2m high and is stone faced on both sides. The style of stone walling is predominantly coursed uprights of varying size in the central section but with Jack and Jill herringbone at both ends, the northern end also having lateral capstones along the top edges. There is dense blackthorn along the northern section where the walling is showing demonstrating some collapse (Fig 36).



Figure 36 Boundary 6b, northern end, looking east

Boundary 7 (SX 00081 39814 – SX00148 39743)

Boundary 7 extends south from the Bulwarks along the east side of fields 0172 and 0467. It is shown on the 1775-6 Mount Edgumbe estate map, where it extends across the end of two individual tenements (Fig 47). Boundary 7 stands around 1m to 1.2m high and has stone facing on both sides. An un-gated opening between fields 1167 and 0172 has rounded ends, very degraded, with lateral stones that appear re-used to consolidate the ends (Fig 37). The northern section of boundary 7 is largely in Jack and Jill herringbone style as far as the northern junction with boundary 16. A large lateral pier of horizontal stones marks the boundary end, with coursed upright stones along the southern section to the junction of boundary 15 (Fig 37). There is dense vegetation along much of this boundary, largely gorse.



Figure 37 Boundary 7, the gateway looking north and the changes in stonework styles either side of Boundary 16, looking west

Boundary 8 (SX 00180 39740 – SX 00265 39584)

Boundary 8 extends along the west side of field 2366. On the 1775-6 Mount Edgumbe estate map it appears to be pencilled in as a small rectangular enclosure to the north and is shown as having a less clear boundary line to the south (Fig 47). The boundary appears more solid on the 1842 Gorran parish Tithe Award map (Fig 49) but it has a different form in the south than the north, which may indicate its former division. At the north end boundary 8 is stone-faced on both sides, comprising coursed uprights 0.8m high, with some lateral stones along the base. The stonework shows evidence of much repair. Towards the southern end boundary 8 becomes a low earth bank, around 0.8m high but with several breaks and much vegetation cover. An opening at the south end allows access between fields 2366 and 1456. One of the recorded boundary stones (MCO45828) bearing the inscription I.M.W. lies against the west side of boundary 8 near this opening (Fig 38), although this is known not to be *in-situ*. A second large flat stone, of similar shape and size, lies on the opposite side of the opening but does not appear to bear any inscription.



Figure 38 Boundary 8, southern end, with boundary stone and inscribed initials I.M.W.

Boundary 9 (SX 00215 39558 – SX 00245 39510)

Boundary 9 extends along the east side of field 2348. It does not appear to be shown on the 1775-6 Mount Edgecumbe estate map (Fig 47) but is clearly present on the 1842 Gorran parish Tithe Award map (Fig 49). The current boundary stands to around 1.2m high, with a central gateway and wooden gate. The boundary is stone faced on both sides and heavily vegetated but in generally good condition. The stonework comprises small uprights above large lateral stones at the base of the walls.

Boundary 10 (SX 00249 39517 – SX 00350 39439)

Boundary 10 extends along the north and east sides of field 3048. It is present on the 1842 Gorran parish Tithe Award map (Fig 49) and may be shown as the western boundary of an enclosure shown on the 1775-6 Mount Edgecumbe estate map (Fig 47); the enclosure no longer survives. A series of curving lynchets on the south headland run up to the east side of boundary 10 and may continue beneath it. There is also an unrecorded stone edged hollow way that runs upslope from the southwest coastal slope, past the stile onto the headland and up to the southern end of boundary 10. The hollow way was noted to continue along the south edge of field 3048 but could not be traced beyond that point.

Boundary 10 ranges between 1m and 1.4m in height and is stone-faced on both sides. The east and north faces are largely coursed upright slate stones, the style of which is different at the northeast end, looking older and rougher in design. There is some Jack and Jill herringbone sections along the north face and at intervals between the uprights on both the north and east faces are lateral piers of long horizontal stones (Fig 39), as seen periodically within other boundaries on Dodman but particularly evenly spaced here. In places they seem to coincide with the ends of the low curving lynchets to the east of boundary 10. This may be coincidence but an alternative theory is that these pillars somehow mark land division in some way; the pier in boundary 7 at the junction with boundary 16 (Fig 37), may also be an example of this.

The west and south faces of boundary 10 contain some sections of Jack and Jill herringbone stonework with some lateral capstones and both sides of the boundary have dense vegetation cover (Fig 39). Condition is generally very good, although there is some degradation of stonework at the southern end of boundary 10 at the point where the hollow way meets it.



Figure 39 The east and west faces of boundary 10

Boundary 11 (SX 00247 39507 – SX 00350 39439)

Boundary 11 extends along the west and south sides of field 3048 and is shown on both the 1775-6 Mount Edgecumbe estate map (Fig 47) and the 1842 Gorran parish Tithe Award map (Fig 49), where it formed the east side of the watch house enclosure, named 'Beacon Piece' in the Gorran parish Tithe apportionment. Boundary 11 stands around 1m high and has stone facing on both sides, comprising both coursed uprights and Jack and Jill herringbone. The boundary is heavily vegetated and the stonework is largely obscured.

At its southern end the boundary has a curve in it, the curved face facing east, which broadly corresponds to the line of the hollow way that continues along the south side of field 3048 (although fainter than to the east) and which disappears beyond this point. The vegetation is very dense at this southern end and the detail of this curved wall, or the reason for it, could not be explained.

Boundary 12 (SX 00247 39508 – SX 00117 39398)

Boundary 12 extends along the south side of field 2348. It appears to be shown on the 1775-6 Mount Edgecumbe estate map as forming the north side of the watch house enclosure (Fig 47) and is also shown on the Gorran parish Tithe Award map (Fig 49). The boundary is stone-faced on both sides and varies between 0.4m and 1.3m high, with some sections along the north face where the stonework has tumbled and the boundary is in very poor repair. The eastern end of boundary 12 comprises coursed upright slate stone on both sides (Fig 40), with signs of significant repair on the north face. Towards the western end the stonework on the north face of boundary 12 is Jack and Jill herringbone style. Dense vegetation along the south side of boundary 12 obscures the western end on this side. The western end of boundary 12 incorporates a short dogleg on its north side to meet boundary 3. The dogleg is fenced with dense vegetation behind (Fig 40). The dogleg is not shown on historic mapping and the reason for this is not clear.



Figure 40 The south side of boundary 12 at its eastern end, and the fenced dogleg at its western end

Boundary 13 (SX 00208 39555 –SX 00094 39433)

Boundary 13 extends along the north side of field 2348 and does not appear to be shown on the 1775-6 Mount Edgecumbe estate map (Fig 47), although there are some lightly pencilled boundaries shown in this area. It is present on the 1842 Gorran parish Tithe Award map (Fig 49) where it borders the furthest south of the narrow strip divisions on the western side of Dodman. These strip boundaries are shown as continuing down the western coastal slope but boundary 13 appears to end at the junction with boundary 3, beyond which another rectilinear enclosure to the west is shown; there is a marked change in height between these two areas today, with the present SW coastal path running along the west side of boundary 3. A low vegetated boundary continuing south from boundary 12 is indistinct but still visible on the coastal slope; this marked the southern boundary of that second enclosure.

Boundary 13 is stone-faced on both sides and varies between 0.2m and 1.3m high, with some sections in very poor repair with much wall tumble evident in places. Along some very good surviving sections the stonework is predominantly Jack and Jill herringbone style, making use of larger stones than evident in some other boundaries, with some larger lateral stones along the base of the wall and with large lateral capstones in place. On the south side there are some lateral piers comprising large horizontal stones (Fig 41). There has been significant repair along some sections and much of the boundary is heavily overgrown.



Figure 41 An eroded section across boundary 13 and a section of the south face showing coarse 'Jack and Jill' style stonework, capstones and one of the lateral piers

Boundary 14 (SX 00222 39660 – SX 00015 39532)

Boundary 14 extends along the north side of field 1456 and appears as a solid boundary on both the 1775-6 Mount Edgecumbe estate map and the 1842 Gorran parish Tithe Award map (Figs 47 and 49). Both maps show the presence of former strips to both sides of boundary 14, although there are no visible surviving remains of these. Boundary 14 probably fossilises a former medieval strip field boundary that was formalised as part of a larger 'cropping unit', or bundle of strips (see Herring 2006, 59-60) during the post medieval period; a reorganisation process possibly still in progress when the 1775-6 Mount Edgecumbe estate map was being produced (Fig 47). Historically, boundary 14 is likely to have been major land or tenure boundary that was constantly maintained into at least the late nineteenth century.

Boundary 14 is stone faced on both sides although there are several stock breaks along the boundary and sections of severe erosion where the boundary is reduced to an earth bank. Animal burrowing has also had an adverse impact on the condition of the boundary. There is much evidence of repair and some sections are heavily overgrown.



Figure 42 Boundary 14 showing different styles of stonework and evidence for repair. The west end of boundary 14 curves round to meet boundary 3

The height of boundary 14 broadly ranges between 0.2 and 1.2m, but on some sections is reduced almost to ground level. The stonework comprises both coursed upright slate stones and Jack and Jill herringbone style. There are large lateral stones along the base of the boundary in places (Fig 42), with possible lateral piers of large horizontal stones and lateral capstones present in some sections (Fig 42). At its western end boundary 14 extends beyond the fence line and curves round to the north to meet boundary 3. Here the boundary is 1m high, with coursed upright stones and lateral capstones.

Boundary 15 (SX 00141 39741 – SW 99974 39584)

Boundary 15 extends along the south side of field 0467 and is also shown as a relatively solid line on the 1755-6 Mount Edgecumbe and 1842 Gorran parish Tithe Award maps (Figs 47 and 49). This boundary also probably fossilises a former medieval strip boundary and a post medieval 'cropping unit' boundary (Herring 2006, 59-60). The boundary is also shown on both historic maps as continuing downslope on the western coastal slope and this section of the boundary still survives as a low bracken covered earthwork, with some stone visible and now cut by the SW Coastal Path. Around 25m down the coastal slopes boundary 15 meets with boundary 17, a section of stone faced boundary running northwest and parallel to the coastal slope, which marks the extent of field 0467 as shown on the OS First Edition 1880 mapping, prior to this enclosure being cut by the coastal path (Fig 50).

Boundary 15 (Fig 43) is stone faced on both sides and ranges in height between 0.25m and 1.2m. As with boundary 14 there are many stock breaks along its length and some sections of bank collapse and wall tumble, particularly along the central section. The stonework appears to mainly comprise Jack and Jill herringbone style with some repair. Towards the eastern end there are some large horizontal stones, the lowest of which appears to have been drilled and worked. This stone may have functioned as a drain in this location. In places the boundary is reduced to a low earth bank and there is heavy vegetation along much of its length, particularly blackthorn towards the western end.



Figure 43 Boundary 15 showing different stonework styles and evidence of repair. A worked stone at the eastern end (top left) may have served as a drain

Boundary 16 (SX 00115 39772- SW99935 39627)

Boundary 16 extends along the south side of field 0172 and is the nearest boundary to

the Bulwarks, running parallel to them on their south side. The boundary is shown on the 1755-6 Mount Edgumbe estate and 1842 Gorran parish Tithe Award maps (Figs 47 and 49) as extending further down the coastal slope to where it meets boundary 18, a low stone-faced boundary cut into the coastal slope and now poorly degraded towards its northern end and under dense vegetation cover. As with boundaries 14 and 15, boundary 16 probably fossilises a post medieval 'cropping unit' boundary (Herring 2006, 59-60), which formerly contained a number of narrow unbounded strips, as suggested by the 1842 Gorran parish Tithe Award map (Fig 49).

Boundary 16 (Fig 44) currently appears as a low earth bank along much of its length, reduced to ground level in places where stock breaks and paths cut through it. It is topped by low vegetation along some sections, predominantly gorse and bracken. There are some sections of the boundary standing to around 1m high, faced by Jack and Jill herringbone style stonework. Where wide stock breaks have been created the boundary ends appear to have been reinforced with horizontal slate stones. As the excavations in T3 showed (Section 9.1.1), the boundary was probably first formalised through the construction of an earth bank, which was subsequently stone-faced along both sides. There has since been substantial erosion of this boundary and it is now in very poor condition.



Figure 44 Boundary 16, now reduced to a low earth bank in places but with some sections of stone facing. There are several large stock breaks along its length

9.3.2 Bulwarks survey

NB: The survey drawings can be found in Figs 58 to 60

The Bulwarks (centred SX 00077 39833) comprise the boundary ditch and the inner and outer ramparts of the Iron Age cliff castle (MCO6545) on Dodman, which enclose the headland on its north side and terminate on the cliff slopes to the east and west. As part of the management of the site around 80 per cent of the vegetation was cleared from the Bulwarks prior to a Total Station EDM survey during March and April 2016. The extreme ends of the ramparts on the cliff slopes were excluded from the clearance, as were two sections along the north side of the inner rampart towards its eastern end, the former due to inaccessibility and the latter, to maintain some wildlife shelter and protection of the fairy shrimps that live in the puddles there. The survey extended

along the complete length of the Bulwarks as far as safe access would allow and a profile across the ramparts was taken from the base of the inner rampart on the south side to the base of the outer rampart on the north side where these were accessible.

The measured survey was carried out prior to the erosion repairs along the western end of the Bulwarks in order to record the affected areas before repairs were made. The survey revealed that the outer rampart has been substantially modified through re-use as a field boundary, with much of its length contained within Cornish hedge style walling on both sides, creating a boundary up to 8m wide in places. Visible stonework included large horizontal slate stones and Jack and Jill herringbone style build.

Along some sections of the outer rampart the walling appeared to sit upon a low earthen bank, suggesting it was constructed on top of the surviving rampart in places rather than on either side to contain it. In some other sections there was no obvious evidence for surviving earthworks and the line of the rampart appeared to comprise Cornish style hedging only. There was substantial evidence of animal burrowing along the south side of the outer rampart, in places following the base of the Cornish hedge where it tops the rampart bank. Historic breaks in the rampart have been made to create four field gateways; two of these towards the west end of the Bulwarks have subsequently been blocked in again (Fig 58, P4), the other two remain in use.

The inner rampart survives to a much greater height than the outer rampart, at around 113m to 116m OD. Its construction potentially reflects two or more phases of build, resulting in a low vertical scarp along the ditch side, still visible along some sections, and with a longer slope above leading up to a wide flattish top with a slightly rounded profile (Fig 61). In places the top of the inner rampart has been truncated or modified to create a more uneven profile (Fig 61). The south side has a mirroring slope to ground level, which is substantially higher on the south side than the north, illustrating how the ramparts were constructed to utilise a natural break in slope. This profile appears relatively consistent along the inner rampart, except where field lanes have been inserted or where other modifications have occurred, yet to be fully understood. Along much of the top of the inner rampart there are sections of low stone walling in the Cornish hedge style. The stonework is hard to distinguish in places but Jack and Jill herringbone stonework is visible, along with large capstones similar to those seen along some of the field boundaries out on the headland (see Section 9.3.1). Along both sides of the inner rampart there is much evidence for animal burrowing. On the south side this presents itself as a series of burrows into the earth bank, on the north side there is more sculpting of the earth and bedrock face where animals have burrowed along the plane of the earthworks, causing material to fall away.

The far west end of the inner rampart has been badly eroded as a result of stock movement along the coastal slopes and walkers using the coastal path. A stone-faced field boundary edges the north side of the inner rampart in this section, curving across it at its western end to continue south. The low bank surviving at the time of the survey has since seen repair and consolidation (E3; Section 9.2.2). The western end of the inner rampart has suffered much erosion and damage from animal burrowing and, following the survey, the north side was subject to patch repairs where required as far as, and including, the first two field lanes (see Section 9.2.2). The two field lanes cut through the earthwork at SX 00012 39774 and SX 00096 39843, truncating the rampart to provide access to the headland fields via the inner ditch/trackway. Both lanes are contained by the sloping sides of the truncated rampart and have a curving spur of Cornish hedge following round the top of the slope on their west side (Fig 58, P5). The east side of the second field lane has also suffered badly from erosion and animal burrowing (E1; Section 9.2.2) and following the survey this area has also seen substantial repair.

A further modified section of the inner rampart was observed at SX 00118 39867. This comprised a low terraced area at the base of the north side of the rampart, which appeared to continue as a low depression or hollow across the top of the rampart towards the field edge on the south side (Fig 59, P6). To the west of this hollow was a low mound of surviving rampart, which appeared to have a path cut along its west side.

The path followed the line of the rampart to join the hollow on its west side. A section of stone retaining wall bordered the south side of the path, following the curve of the rampart side. A section of Cornish hedge started at the top of the path and ran across the depression, effectively blocking it, and continued eastwards along the top edge of the inner rampart on its north side (Fig 59, P7). The path ran counter wise to the previous two field lanes and was much narrower in width. The north edge of the inner rampart at the base of the path appears to have been truncated in this area, possibly associated with the construction of the field lane to the west, and the path currently starts a short way up the rampart side.

It is not clear what this feature represents but it may have been an earlier field lane or access route onto the headland that was subsequently blocked by the addition of the Cornish hedge. Around 63m east of this possible former field lane is a further field lane, which is now blocked and out of use (Fig 59, P9). This lane follows the same configuration as the two field lanes still in use to the west. The blocked gateway contains a granite gatepost still *in-situ* on its west side (Fig 59, P10). Between the blocked field lane to the east and the possible former field lane to the west there is a narrow level terrace running along the base of the Cornish hedge topping the inner rampart on its north side (Fig 59, P8). This appears to be accessed via a shallow slope leading east from the possible former field lane. The terrace continues eastwards beyond the blocked field lane to the hollow way that leads up onto the headland.

To place the series of field lanes in their wider context, the outer rampart towards the western end of the Bulwarks has clearly been modified to create field boundaries with gateways onto the inner ditch, with the field lanes then providing access onto the open headland. This was probably part of a stock management regime when the headland was used more regularly for grazing. On the south side of the Bulwarks the western end aligns with a funnel-shaped configuration of fields that suggest a possible droveway leading towards the gateways onto the Bulwarks. On inspection, the north 'funnel' end of the possible droveway is met by a short section of hollow way (NT96870) bordered on both sides by Cornish hedges. The hollow way incorporates a spring and pond (NT96869) (now under cover of scrub and trees) and continues northeast from the pond along the southern side of an enclosed block of medieval strip fields (Fig 57). The hollow way is shown on the 1842 Gorran parish Tithe Award map (Fig 49) as a narrow enclosure that potentially once formed the eastern edge of the former droveway.

It seems probable that the combination of the possible droveway, watering hole and field lanes are all part of the historic stock management at Penare Farm. The possible droveway respects the medieval field pattern to the southwest of Penare but cannot be traced beyond the short length running northeast from the pond along the southern side of the medieval fields. The post medieval field boundaries that formalised the former medieval strip fields appear to have divided off parts of the possible droveway and fossilised some sections but not others: this potentially indicates that the droveway was earlier than post medieval in date and had fallen out of use at this time. Whilst this does not securely date the modification of the Bulwarks to accommodate changing farming practices it does illustrate the time-depth of agricultural activity on the headland and how this has impacted the historic monument overall.

Continuing eastwards along the Bulwarks, the hollow way has a similar configuration to the field lanes located to the west as far as the south edge of the inner rampart, from where it currently forms a narrow trackway cut into the natural slope and bordered by high Cornish hedge banks on either side. A former granite gatepost is visible on the west side of the entrance to the hollow way, adjacent to the end of the Cornish hedge topping the inner rampart (Fig 60, P13).

A current field gateway to the east of the hollow way incorporates another section of substantially modified rampart. The gateway is flanked by two sections of Cornish hedge, which appear to infill a once wider opening in the rampart. The suggestion of a possible terminus is visible on the east side of the gateway but this may simply be the result of the wider modification of this section (Fig 60, P12), some of which may include relatively recent disturbance. As the gateway sits at the head of the trackway from

Penare it may be that this modification of the rampart masks an original entrance way into the cliff castle but this area would merit more investigation to be certain of this.

From the head of the trackway to Penare the Bulwarks make a 45 degree turn to the east to continue downslope towards the eastern cliffs. The inner rampart continues as a high sloping bank on the west side, again topped by low Cornish hedge style walling (Fig 60, P14). On the east side the inner rampart continues as a low bank topped by a substantial Cornish hedge averaging around 1.3m high and comprising upright slate stones topped by large capstones (Fig 60, P15).

Two thirds of the way along this section there is another modified area of the inner rampart, comprising a large sloping 'scoop-out' of the east side of the rampart to around its mid-point. A further section of Cornish style hedge runs midway along the east side of the inner rampart and turns at right angles to form the south edge of this cut (Fig 60, P16). This lower run of Cornish hedge continues to midway along the inner rampart and then curves south and up along the field edge. The remains of a narrow path were observed on the east side of the wall, leading down from the field, but this was not surveyed.

Where the inner rampart meets the SW coastal path at its eastern end it meets the curve of the natural slope along the east side of the headland. This slope may have been partly modified during the construction of the rampart, or at some later point, and currently appears to form a southward trending spur (and see Section 9.3.3 below).

At both ends of the Bulwarks the ramparts continue down the cliff slope, with the inner rampart following the break in slope and incorporating rocky outcrops where it meets the cliff slopes proper (Figs 58, P1 and Fig 60, P17). The ditch has a rounded profile and is shallower towards the top edges, deeper as the ramparts continue downslope; the original ditch has probably infilled over time, however. At the eastern end the remains of an outer scarp on the north side of the outer rampart were particularly evident (Fig 60, P17). As the farthest extents of the ramparts were beyond safe access it is not clear how far they once extended or what their current state of preservation is.

The inner ditch of the Bulwarks is currently in use as a trackway, also providing vehicle access onto the headland. The watching brief carried out on the water pipeline (Section 9.2.1) demonstrated that the ditch was at least 2m deep in places, but that this might not have been continuous. In particular there was no evidence for a ditch at the head of the trackway to Penare, potentially indicating a causeway at this point; this strengthens the argument for an entrance to the cliff castle in this vicinity. Currently the trackway shows evidence of erosion from vehicle movement and the edges contain slumped rampart material, which have narrowed the original ditch along some sections.

The survey of the Bulwarks has produced a comprehensive record of the ramparts as they currently survive, with evidence for phases of construction, modification, adaption and decline. The survey provides a sound base for further investigation and research of the earthworks, which would hopefully shed more light on the function and date of some of the potential features and activities identified by the survey and which would continue to inform its effective future management.

9.3.3 Earthworks survey

NB: The survey drawing can be found in Fig 62

The earthworks (NT96899) are located on the east side of Dodman at SX 00343 39904. The earthworks had not been cleared of vegetation prior to a Total Station EDM survey in October 2015 and so the area surveyed may not constitute the total extent of the site. There is continued speculation as to the function of the earthworks in this area, the main contenders being some form of extractive or military site. There are two documented quarries (MCO45471) around 200m to the south of the earthworks, with another (NT96897) possible quarry to the west of the earthworks just within the ramparts; the western edge of the survey area may extend into this possible quarry (see below). A further feature (NT96900) documented to the east of the earthworks may be associated with quarrying activity in this area; the National Trust record entry

(see Parkes 2008, 93) suggests this may be similar in form to some of the other earthworks in this area but this was not substantiated by this survey.

There are no known twentieth century military records of activity on Dodman relating to the two World Wars. Documentary accounts of troop activity around Vault and Hemmick beaches feature in Marjorie William's (2007) wartime journals from Lamledra but there is no specific mention of entrenchments on Dodman. Going further back in time, the anecdotal accounts of refortification of the Bulwarks during the sixteenth and seventeenth centuries documented by Whetter (1990, 23) remain vague and unsubstantiated, although there is evidence for late prehistoric hillforts in other parts of the country being re-used during the Civil War and for the refortification of existing defensive works or the rapid throwing up of crude defences using natural features and local materials (Harrington 1992, 47-49). The term 'The Bulwarks' may also refer back to a point of military re-use, although this so far remains conjectural.

Working from north to south along the coastal slope the survey revealed the outline of a probable sub rectangular structure 4m long by 3m wide on the south side of the inner rampart; **structure 1** was partially excavated in T5 (see section 9.1.2). This structure was constructed partly against a large slab of natural bedrock, with a shallow hollowed out interior contained by raised banks of earth and stone (Fig 62, P1). Roughly coursed rubble stone walling is visible in some places along the east and west sides of **structure 1**, potentially indicating a deliberate build, although at the time of survey it was not possible to examine the form of construction clearly as the banks were grassed over and vegetated. **Structure 1** may originally have abutted a cut bedrock face to the south but at some point a narrow path appears to have been inserted, running from the coastal path along the south side of **structure 1** and bordered by the cut bedrock face on its south side (Fig 62, P2). A modern path now follows part of its length.

Bordering the coastal path to the south of **structure 1** there appears to be a series of rough shallow terraces and lynchets (Fig 62, P3). On the east side of the coastal path these abut a sinuous revetment of what appears to be artificially cut bedrock. Whether this vertical face was the result of quarrying or part of the deliberate formation of terraces in this area remains uncertain. Examination of the revetment in several places suggests a clean cut surface, near vertical along some sections and with the slatey bedrock following its natural planes (Fig 62, P4). Shallow banks along part of its length may have developed against the original cut face at a later stage but it is not clear whether this was an intentional part of the construction, the result of quarrying or the consequences of gradual disuse.

The soil overlying the terraces at the base of the rock face was observed to be very dark and richly organic silty loam, which may be an indication of cultivation in this area; the upper loams recorded in Trench 4 to the north may also be associated with phases of cultivation, both pre-dating and post-dating the construction of **structure 1** (Section 9.1.2). There is evidence of cultivation within the rough ground of the cliffs immediately to the north of the Bulwarks on the east side of Dodman, where the remains of lynchets and field boundaries are tentatively associated with a field system (MCO50254) of medieval origin, although a post medieval date is also possible. The field system there is shown as a series of regular enclosures on the 1842 Gorran Tithe map, which appear to lie within the rough ground and which are dramatically reduced on the OS First Edition c1880 map (Fig 50). The Gorran Tithe apportionment records these enclosures as arable, indicating plots in cultivation within the previous five years.

As no such indication of organised cultivation is shown to the south of the Bulwarks on any historic mapping, this probably indicates that any cultivation here was either substantially older in origin or was more piecemeal, in line with the cliff gardens on Dodman Horse. Similar cliff gardens found around the coast of Cornwall are generally thought to date anywhere between the eighteenth and early twentieth centuries, although earlier origins at some sites, such as Ropehaven Cliffs, Trennaren, have been suggested (Dudley 2003, 19; Herring 2001, 184). Parkes (2008, 60) suggests that the gardens at Dodman Horse may have been relatively short-lived, dating between the

1842 Gorran parish Tithe Award survey and the OS First Edition map of c1880, a period of barely forty years.

The 1842 Gorran Tithe apportionment records this east side of Dodman as Penvere Point Piece and the land use as 'Brake', possibly indicating rough ground or bracken (Wright 1898). There may have been a phase of piecemeal cultivation after this date, although as the already arable enclosures to the north of the Bulwarks are in decline by this point it suggests an older origin for any cultivation in this area. Bearing in mind that the excavations in Trench 4 indicated possible cultivation layers post-dating **structure 1** (Section 9.1.2), this would potentially push the date of this structure back to at least the early nineteenth century and possibly earlier.

A feature, **Feature 1**, to the south of **structure 1** at SX 00352 39922 comprises a small hollowed out area of the bank abutting the cut bedrock face below the coastal path to create a short curvilinear slot with a low earth mound on the seaward side (Fig 62, P5). It is not clear what this feature represents but potential explanations include a smaller version of the larger slots and earth banks to the south (see below); a rough structure or shelter (but there is less form to this than **structure 1**); a small quarry area and spoil heap.

On the west side of the coastal path there is an area of raised ground in the form of a low oval earth mound. The mound, and a curved terrace cut into the steep slope to its west, may also be the result of quarrying; this may be the location of the possible quarry NT96897. The earth mound is now crossed by the SW coastal path (Fig 62, P3) but its form indicates a possible building platform or machine plant base, or, if military in origin, a base for heavy artillery.

The cut bedrock revetment continues along the eastern edge of what is now the coastal path and this forms the back edge to two long earthwork features comprising deep narrow sinuous slots bordered by substantial earth banks on their eastern side and a lower bank at the bottom of the revetment on their west side (Fig 62, P6-8). The banks on the eastern side are raised high above the natural slope to a height of around 95m to 100m OD, with the base of the slots at a height of around 92m to 98m OD. The slots appear very narrow for quarrying and if the earth banks to the east are spoil heaps they are very disproportionate in size to the slots. The narrow sinuous form of the slots and the banks with a relatively flat inner face and a sloping exterior do appear more military in origin, although their less precise form may suggest a date prior to both World Wars (Sharpe, A, pers comm). They also run counter to the natural faulting of the surrounding geology, which potentially rules out mineral extraction as a factor.

It appears likely that the earthworks and potential structures in this area represent one or more phases of activity. There is a suggestion that the rough terraces may have preceded the larger banked earthworks towards the southern end and the possible quarrying towards the northern end, which potentially suggests at least two, possibly three, independent phases of activity. More evaluation is required to properly understand their character and date.

What is clear, despite the remaining uncertainties, is that this side of Dodman has a more complex history than previously thought, with significant archaeological potential. If the earthworks do prove to be military in nature and pre Twentieth Century in origin then this would be of high significance, both to the history of the wider monument and to defence in Cornwall generally. Correspondingly, the earthworks and surrounding area would merit future investigation, which may include geophysical survey and excavation.

9.3.4 Gardens survey

NB: The survey drawing can be found in Fig 63

The garden terraces (NT96915) are located at Dodman Horse, on the southeast coastal slope of Dodman Point at SX 00419 39400. The gardens were cleared of vegetation prior to a Total Station EDM survey in February 2016, although it is not certain how far the gardens extend along the slopes and it is likely that further terraces survive beneath the vegetation that were not covered by the survey.

In total, eight rough terraces were identified within the cleared area and these were constructed using the natural rock outcrops with the addition of low retaining walls and banks of rough rubble and slate stones (Fig 63, P1-5). The terraces were roughly formed using the surrounding rock outcrops and natural breaks in slope and varied in size. The lowest terrace was situated at a height of around 75m OD, the highest at around 83m OD.

On the north side of the uppermost terrace there was a deep linear cut into the vertical rock face that was accessed via a rough path between natural rock on the north side and a low stone wall on the south, which edged the artificial terrace (Fig 63). This appeared deliberately formed to create some sort of protective structure, perhaps a shelter or store (Fig 63, P6).

On the north side of the gardens a stone faced pasture boundary ran down from the headland between two cleared terraces, continuing downslope to meet a rocky outcrop (Fig 63, P7-8). The boundary was surveyed within the cleared area but its full length was not identified. At least one terrace was identified to the north of this boundary, indicating that the gardens extend further in this direction. A further stone faced boundary wall was identified running along the southeast side of the gardens, following the contour line of the slope (Fig 63, P9). The wall extended northeast from a rocky outcrop at SX 00399 39326 to a point below the southwestern most terrace at SX 00425 39374. It incorporated natural rock outcrops in places along its length and it is likely that it continued beyond the rock outcrop to the southwest as well as further to the northeast, where it would have met the first boundary running downslope at a right angle (Fig 63).

The terraces occupied a sheltered spot on the southern headland, accentuated by the protective rocky overhangs and outcrops. Access down to the gardens now is by a relatively precipitous path through the coastal vegetation, although this seems unlikely to have been the original approach. No other access path was identified by the survey but the headland fields once extended further onto the north eastern slopes and an approach from this direction is possible, although now obscured by vegetation.

There is no dating evidence for these garden terraces, although, as noted above, examples elsewhere suggests a possible date range between the late eighteenth and early twentieth centuries (Dudley 2003; Herring 2001). Parkes (2008, 60) suggests that they may have been early nineteenth century in date and relatively short-lived. If future opportunity arose this side of Dodman would merit further scrub delieverance, investigation and survey to help understand the full extent of the garden terraces and associated features and determine their appropriate future management.

9.3.5 Spring survey

The spring (NT96906) is located on the west side of Dodman at SX 00060 39450. The site was located on the wider Total Station EDM survey of Dodman in September 2015 but due to its nature the spring itself was not measured in, although a photographic record was made. Prior to the survey the immediate site of the spring was cleared of vegetation and was accessible via a cleared path down the coastal slope. The survey revealed a niche measuring around 0.5m wide and 1.5m high cut into the bedrock face, the base of which was filled with water to a depth of around 0.4m. On the south side of the niche was a large upright stone standing at around 1.5m high and with two vertical notches in the front face (Fig 45). A fallen stone of similar size and form was uncovered to the west of the spring, conjectured to have been the one that formerly stood on the north side of the niche (see NT96096 in Parkes 2008, 94). The notches in the upright stone may once have held a rudimentary gate or door, but this is not certain. In front of the spring to the west was a wide level terrace, which at the time of the survey was covered with boggy vegetation, estimated at around 0.5m deep above natural bedrock (Fig 45). The full extent of the terrace could not be measured owing to the vegetation cover and it is not certain whether it is natural or not. The sides of the terrace are slightly raised above the centre and it is possible the terrace was deliberately formed or

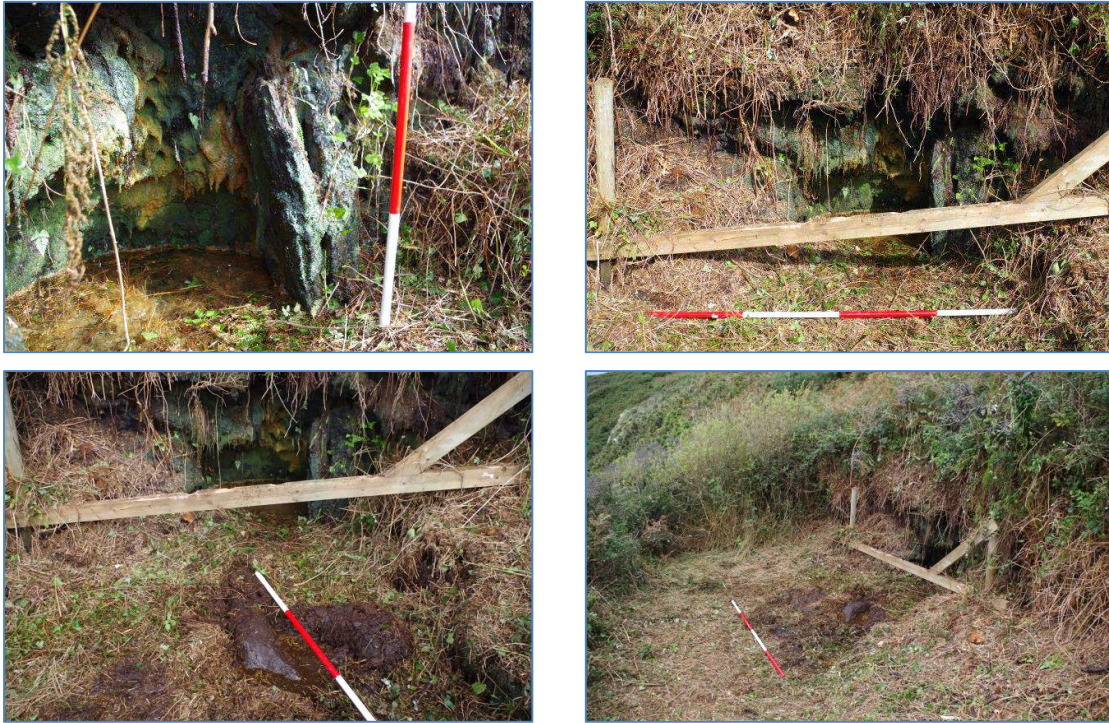


Figure 45 The spring on the west side of Dodman. A terrace in front of the spring is deep in boggy vegetation. A fallen jamb stone lies in front of the niche (bottom left).

modified, potentially becoming further worn over time by the passage of water and human and animal traffic.

9.3.6 Building enclosure survey

The low surviving earthworks of a possible building (NT96909) are located at SX 00158 39342 to the west of the watch house enclosure on Dodman and a Total Station EDM survey of the site was carried out during September 2015. Prior to the survey the site was cleared of bracken.

The survey revealed a sub-rectangular structure 5.6m long and 4m wide, which abutted the north to south running boundary of the watch house enclosure, with low grassy banks around 0.5m to 0.75m wide on the remaining three sides. The banks were rough and irregular in form and it was not possible to determine any clear structure or build, although a central shallow depression 2.8m long and 2m wide represents the interior of the structure.

10 Conclusion

The Stage Two works carried out on Dodman under HLS Agreement No. AG00462831 during 2015 to 2016 were aimed at investigating some poorly understood areas of the headland in order to inform their future management, as well as to increase understanding and enhance the historic record for identifiable distinct sites within the entire study area, such as the medieval field system.

In addition, a series of management tasks to reduce vegetation and increase grazing provision on the headland were accompanied by archaeological monitoring to safeguard any intrusive works and record any features and finds of archaeological significance. These works comprised vegetation clearance, the installation or replacement of fencing and gates, the upgrading of the existing water supply, and repairs to the Bulwarks where erosion and animal burrowing had caused substantial damage.

The works were carried out in response to key priorities identified in the Management Plan (Fleming 2014), which included bringing the Scheduled Monument off the Heritage at Risk Register (English Heritage 2012), restoring the cliff slopes to semi-improved or rough grassland, raising the historic profile of the site and increasing visitor awareness, and securing an effective long term management regime.

As a result of these works some targeted excavation has been carried out and comprehensive surveys made of key sites within the monument. This has considerably amplified our understanding of the Late Iron Age cliff castle ramparts and the ways in which these were potentially modified during the post medieval period, possibly during times of potential threat and more certainly as part of the changing agricultural regime on the headland. The cliff gardens at Dodman Horse were mapped for the first time as well as the undated earthworks on the east side of Dodman. The latter may now be considered to be a highly significant military site, or at the very least a more complex and multi-phased site than previously thought, rather than random episodes of quarrying. The spring on the west side of Dodman has been uncovered and recorded. Repair and conservation work on the watch house did not take place but the lookout platform and flagpole bases within the watch house enclosure were repaired and the wider area cleared of vegetation to restore historic sight-lines between the watch house and key observation points along the coast and inland. New fencing is also currently planned for the watch house enclosure to protect it once the Penare Dexter herd are put out on the cliff slopes to graze.

Conservation management of the medieval field system, which was one of the key target areas of the initial management plan, proved a more difficult area to address. Initially it was hoped to design a philosophy for its preservation and management and a variety of solutions were discussed (Fleming 2014), including complete repair and fencing, simple casting up, and fencing alone to keep stock off the boundaries. The constraints of the HLS scheme criteria for boundary repairs meant that the boundaries could not be restored as archaeological monuments, only as agricultural boundaries, which was not considered an acceptable solution. This would also have been very costly and therefore impractical to carry out. Fencing all the boundaries was considered unacceptable from a visual perspective. Finally it was agreed to carry out a detailed survey and digital photographic record, as well as some minimal but targeted excavation to investigate boundary form and phasing.

In addition to the programme of vegetation clearance and fencing a new water supply has been installed and the monitoring of these works permitted a limited view of the construction, form and phasing of the inner and outer ramparts of the cliff castle and the interior ditch.

The outcome of the archaeological works on Dodman has been a greatly enhanced record of the known sites within the monument. These opportunities, although keyhole, have also provided useful information for the future management of the site. Future opportunities for work on the Bulwarks would be beneficial to understanding the date and character of these more clearly. Further work on the earthworks on the east side of the headland and the cliff gardens on Dodman Horse would also be recommended as both areas are likely to prove more extensive than current clearance along the cliff slopes suggests. There has not been any programme of investigation of the interior plateau within the cliff castle, which geophysical survey (GSB Prospection 2004; 2005; 2006; Roseveare and Roseveare 2013) shows to be rich in archaeological potential. Investigation in this area would potentially inform on the prehistoric activity within the cliff castle, to include the possible discovery to further Bronze Age barrows and settlement activity associated with the cliff castle itself.

11 Future Recommendations

The opportunity afforded by the works carried out under the HLS Agreement for Penare has considerably added to our knowledge and understanding of human activity on Dodman Point from the early prehistoric period through to the present day. Further

management works that could not be undertaken owing to the constraints of the present HLS schemes are recommended. Equally, the tailored nature of some of the targeted excavation and survey work has highlighted the potential of such work to form the basis of future conservation and management schemes.

Recommendations for future management would include (but not be limited to):

- Clearing the eastern end of the Bulwarks to assess the ramparts for necessary erosion repairs. The vegetation could be allowed to regrow to provide wildlife shelter once management works were completed.
- Clearing vegetation to the east of the cliff gardens at Dodman Horse to assess whether and how far these continue eastwards and whether there was a clear access route from the north eastern fields.
- Clearing further downslope and southwards of the earthworks on the east side of Dodman in order to assess whether any further structures or earthworks are present in that area.
- Undertaking repairs to the Napoleonic watch house.
- Restoring the spring and adjacent terrace on the west side of Dodman and maintaining open access to this.
- Undertaking a programme of sensitive boundary restoration and repair within the medieval field system. This should be appropriate to its preservation as an archaeological monument, as far as its practical agricultural use can allow. Historic England guidelines should be consulted, in particular their *Conservation Principles, Policies and Guidance* publication (English Heritage 2015).

Recommendations for future archaeological works would include (but not be limited to):

- Investigation of the possible entrance to the cliff castle at the head of the trackway from Penare, to include the possibility of a causeway over the ditch at this point.
- Investigation within the cliff castle interior, particularly targeting features identified by current geophysical surveys as having archaeological potential. This could include further possible Bronze Age barrows, possible pits and enclosures ranging between Late Iron Age and medieval in date, potentially relating to settlement or agricultural activity, possible buildings of medieval origin, field boundaries and enclosures of medieval or post medieval origin.
- Investigation of the large hollows on the headland currently interpreted as possible bomb craters in order to determine their nature, form and function.
- Further investigation of the earthworks on the east side of Dodman to help inform the nature, form and possible chronology of features and structures in this area. In particular, **structure 1** would benefit further evaluation to clarify its form and function, as well as its relationship, if any, to the adjacent earthworks.
- Investigation of the possible building adjacent to the watch house enclosure, as well as targeted investigation aimed at identifying the existence of any further structures in this area.
- Further EDM Total Station survey of the earthworks and gardens if any further structures or features are identified.
- Investigation of the possible hollow way on the south side of fields 2972 and 3048 and its relationship, if any, with the curved southern end of boundary B11.

Finally, opportunity should be made of any future monitoring works on Dodman to identify further areas of archaeological potential as the recommendations presented here are based on current works undertaken as part of this programme and their understanding to date.

12 References

12.1 Primary sources

Edgcumbe estate map of Penare (CRO ME 2421), c1775-1776. *Penair in Goran*, no date, but similar plan in same group dated 1775/6.

Ordnance Survey, c1809 1 inch map First Edition (licensed digital copy at CAU)

Ordnance Survey, c1880. 25 Inch Map First Edition (licensed digital copy at CAU)

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at CAU)

Ordnance Survey Mastermap Topography

Tithe Map and Apportionment, c1840. Parish of Gorran (licensed digital copy at CRO)

Soils Survey of England and Wales 1983. 1:250,000 Soil Map of England and Wales

12.2 Publications

Bird, E, 1998. *The Coast of Cornwall: Scenery and Geology*, Fowey

Dudley, P, 2003. *Tregiffian, St Buryan, Cornwall; an Archaeological Assessment*, Truro (Cornwall Archaeological Unit, Cornwall County Council), 2003R002

English Heritage, 2014. *English Heritage Heritage at Risk Register 2014, South West*

<http://www.english-heritage.org.uk/content/publications/publicationsNew/heritage-atrisk/har-2012-registers/sw-HAR-register-2012.pdf>

English Heritage, 2015. *Conservation Principles, Policies and Guidance*, Historic England

<https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment/>

Ferguson, J and Thurlow, C, 2005. *Cornish Brick Making and Brick Buildings*, St Austell

Fleming, F, 2014. *Dodman Point, St Goran, Cornwall Archaeological Assessment and Management Plan*, Truro (Cornwall Archaeological Unit, Cornwall County Council)

GSB Prospection, 2004. *Geophysical survey report – Dodman Point*, Bradford

GSB Prospection, 2005. *Geophysical survey report 2005-24 – Dodman Point II*, Bradford

GSB Prospection, 2006. *Geophysical survey report 2006-33 – Dodman Point III*, Bradford

Harrington, P, 1992. *Archaeology of the Civil War*, Prince Risborough

Herring, P, 1998. *Cornwall's Historic Landscape; Presenting a Method of Historic Landscape Character Assessment*, Truro (Cornwall County Council), 1998R047

Herring, P, 2001. *Wild Cornwall; Archaeological Assessments of CWT Nature Reserves*, Truro (Cornwall Archaeological Unit, Cornwall County Council), 2001R068

Herring, P, 2003. *Penare Farm, Gorran, Cornwall (Farm Historic Environment Information)*, Truro (Historic Environment Service, Cornwall County Council), 2003R090

Herring, P, 2006. *Cornish Strip Fields in Turner, S (Ed.) Medieval Devon and Cornwall; Shaping an Ancient Countryside*, 44-77, Macclesfield

Herring, P, 2009. *Cornwall HLC texts, reviewed*, Truro (Historic Environment Service, Cornwall Council)

Herring, P, 2011. *Historic Landscape Characterisation and Urban Characterisation, Cornish Archaeol*, **50**, 107-114

Johns, C, 2015. *Dodman Management Plan: WSI for Stage 2 delivery of key works*, Truro (Cornwall Archaeological Unit, Cornwall Council)

Kirkham, G, 2005. *The Dodman, Cornwall- Archaeological watching brief on trenching for installation of a water supply*, Truro (Historic Environment Service, Cornwall County Council), 2005R071

Kirkham, G, 2006. *The Dodman, Cornwall Archaeological watching brief on trenching for installation of a replacement lightning conductor*, Truro (Historic Environment Service, Cornwall County Council), 2006R005

Kirkham, G, 2008. *The Dodman, Cornwall: archaeological watching brief on trenching for installation of a water supply to the western side of the headland*, Truro (Historic Environment Service, Cornwall County Council), 2008R002

National Trust, 1986. *The National Trust Archaeological Survey: The Dodman* The National Trust; Cirencester

Nowakowski, J, and Quinnell, H, 2011. *Trevelgue Head, Cornwall*. Cornwall Council

Natural England, 2015. *Heritage Coasts: Definition, Purpose and Natural England's Role*,

<https://www.gov.uk/government/publications/heritage-coasts-protecting-undeveloped-coast/heritage-coasts-definition-purpose-and-natural-englands-role>

Parkes, C, 2008. *The Dodman and St Austell Bay: Archaeological Survey for the National Trust of the Dodman and Penare, Lambsowden, Lanledra and Bodrugan*, Truro (Historic Environment Projects, Cornwall County Council), 2008R078

Parry, J, 2012. *Unlocking Our Coastal Heritage Project: The Dodman, nr Mevagissey*, Cornwall Brief for Geophysical Survey, unpublished report, The National Trust,

Ravenhill, W, 1972. *John Norden's Manuscript Maps of Cornwall and its Nine Hundreds*, Exeter

Reynolds, A, 2013. *Higher Level Stewardship Farm Environment Plan and Historic Environment Report for Dodman Point (Penare Farm, St Goran)*, (Truro, (Cornwall Council)

Reynolds, A, 2014. *Written Scheme of Investigation for Archaeological Management Plan at Dodman Point (Penare Farm, St Goran) SW002396*, Truro (Cornwall Council)

Roseveare, M J, and Roseveare, A C K, 2013. *Dodman Point, Cornwall: Geophysical Survey Report*, Hereford

Thorpe, C, 2005. *Dodman Point Field walking, Finds report*, Truro (Historic Environment Service, Cornwall County Council), no report number

Thorpe, C, 2007. *Dodman Point Field walking, 2006-2007*, Truro (Historic Environment Service, Cornwall County Council), 2007R079

Whetter, J, 1990. *The History of Gorran Haven Part 1: 0-1800 AD* Lyfrow Trelyspen, Gorran, St Austell

Williams, M, 2007. *Letters from Lamledra, Cornwall 1914-1918* (Ed. Phillips, C), Truro

Wright, J, 1898. *The English Dialect Dictionary*, London

Source: Google Books, accessed September 30 2016

<https://books.google.co.uk/books?id=SNARAAQBAJ&pg=PA374&lpg=PA374&dq=The+english+dialect+dictionary+brake&source=bl&ots=vzb9dxsJ9I&sig=523hE8NFDs9BrDytDI6dwGdzG9Q&hl=en&sa=X&ved=0ahUKEwjPyYTLh7fPAhVEAsAKHX7xBiIQ6AEIHDAAs#v=onepage&q=The%20english%20dialect%20dictionary%20brake&f=false>

12.3 Websites

<http://www.heritagegateway.org.uk/gateway/> Online database of Sites and Monuments Records, and Listed Buildings

13 Project archive

The CAU project number is **146504**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit

Electronic data is stored in the following locations:

Project admin: \\Sites\Sites D\Dodman Point Stage 2 Management Works 146504

Digital photographs: \\Historic Environment (Images)\SITES.A-D\Sites D\Dodman_Stage2_Works_146504

Electronic drawings: \\Historic Environment (CAD)\CAD Archive\Sites D\Dodman Stage 2 works 146504

Historic England/ADS OASIS online reference: cornwall2-266227



Figure 48 OS First Edition map c1809 showing three possible buildings on the site of the Watch House and Signal Station

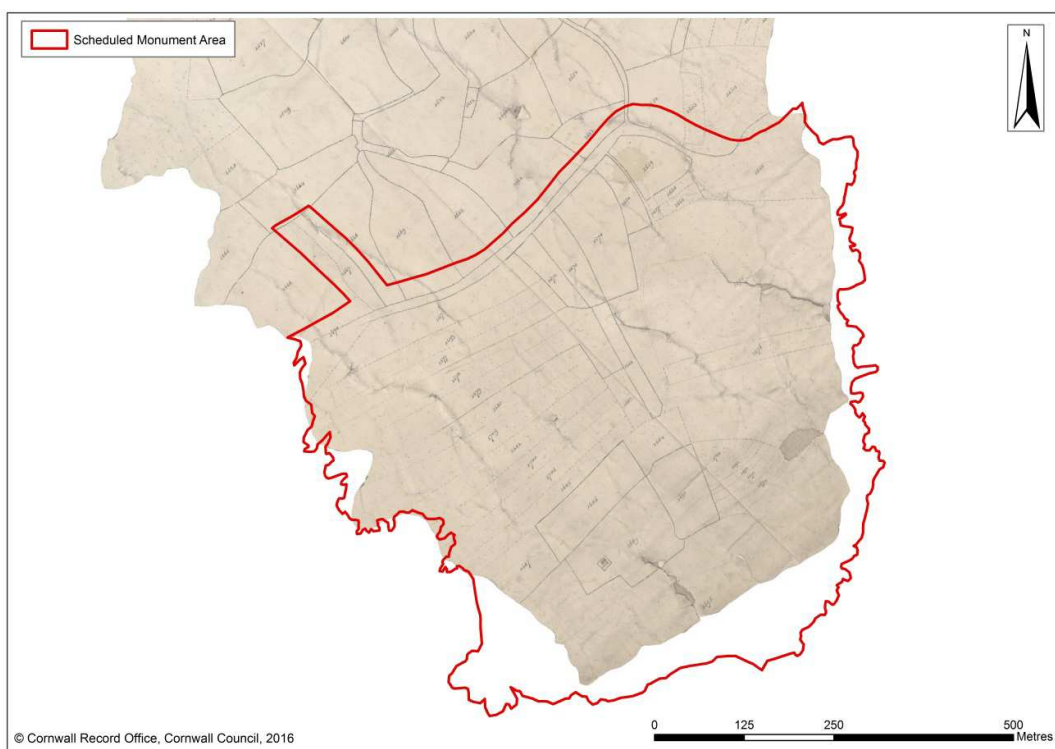


Figure 49 Extract from the 1842 Gorran parish Tithe Award map showing the survival of medieval strip holdings within the nineteenth century tenant holdings on Dodman

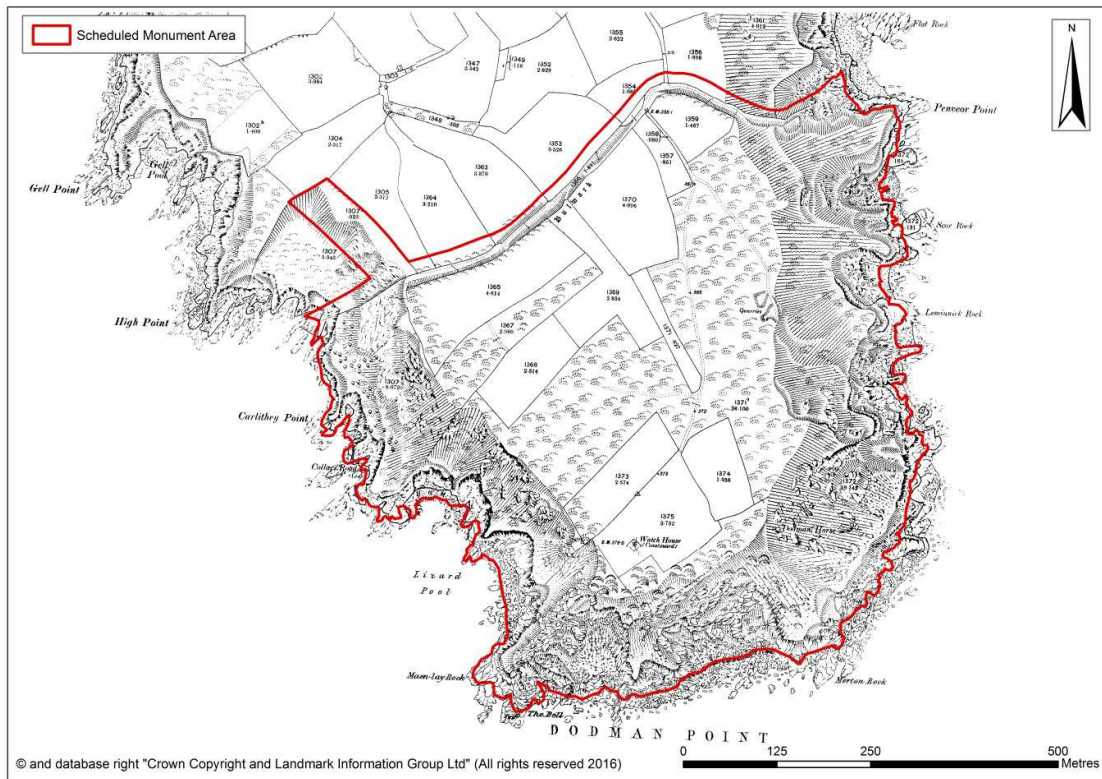


Figure 50 First Edition of the Ordnance Survey 25 Inch Map, c1880.

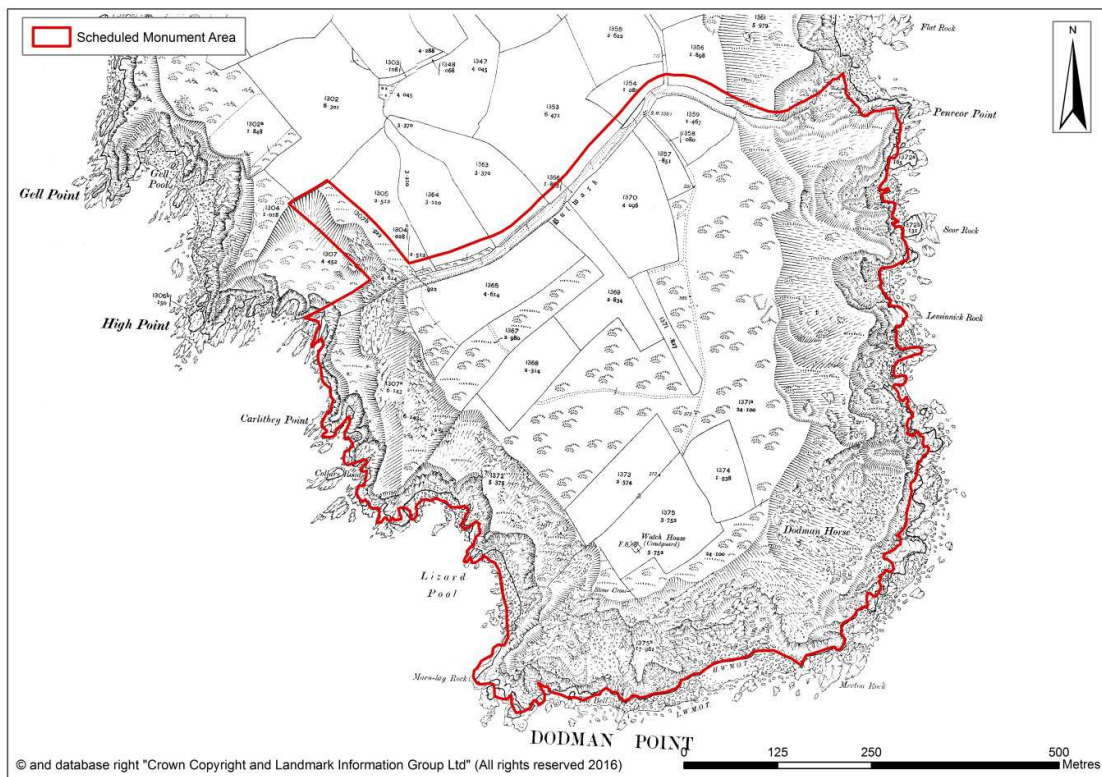


Figure 51 Second Edition of the Ordnance Survey 25 Inch Map, c1907.



Figure 52 Location of excavation trenches 1-6.

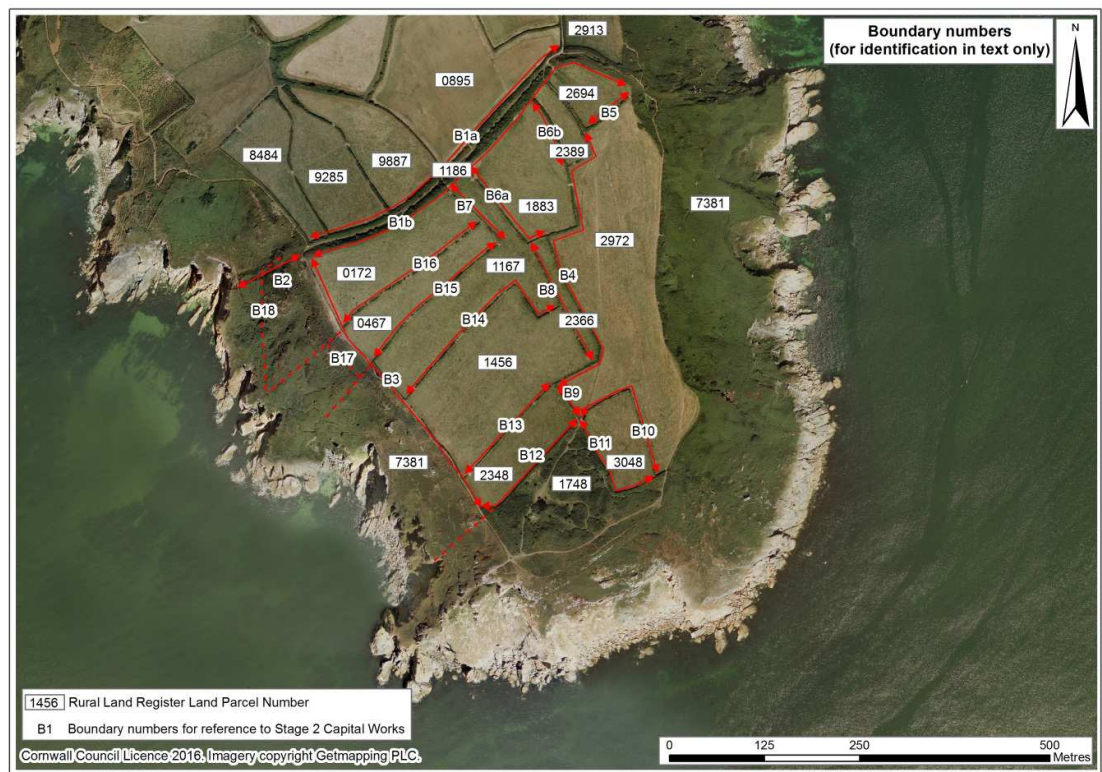


Figure 53 Boundary numbers and Rural Land Register Land Parcel numbers used in the text

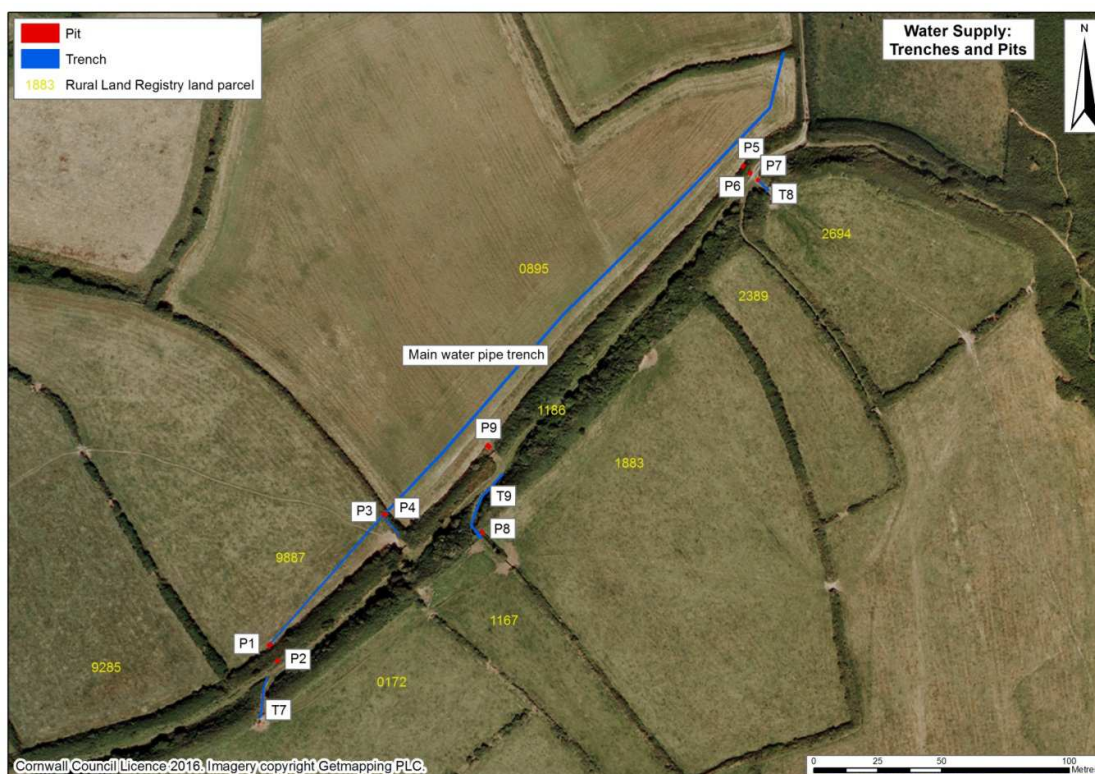


Figure 54 Location of pits and trenches dug during installation of a new water supply

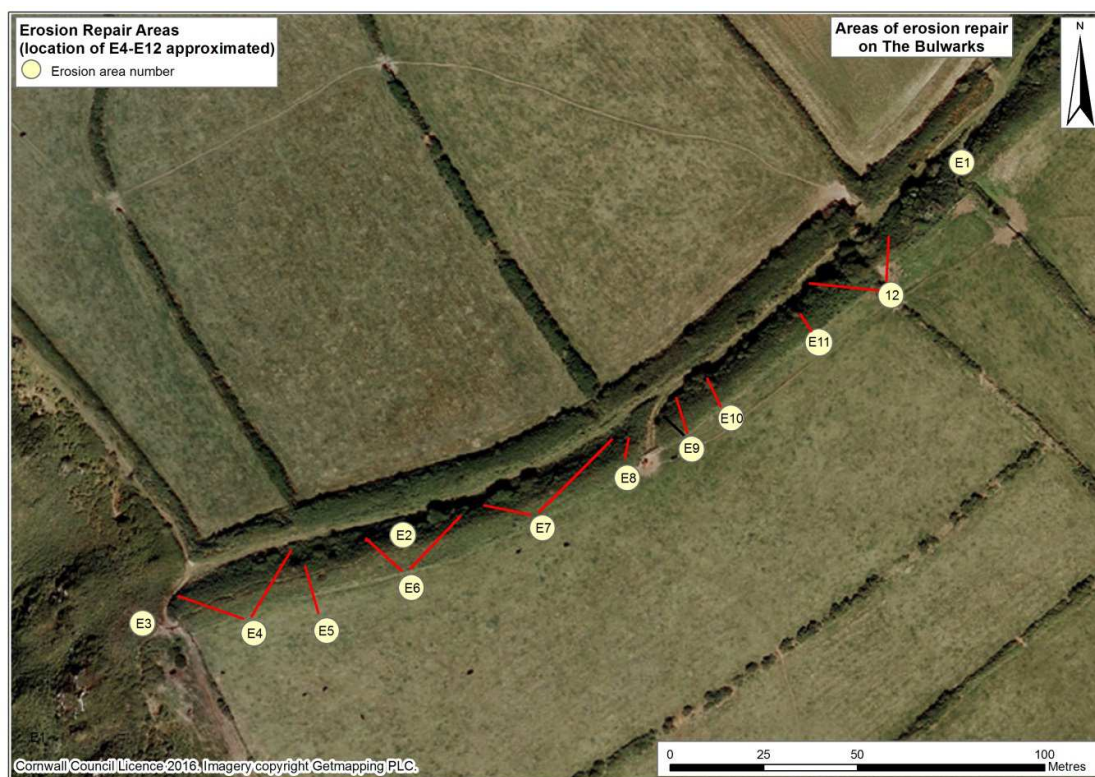


Figure 55 Location of erosion repairs on the western end of the Bulwarks. The locations of areas E4 to E12 are approximated



Figure 56 Location of new and replaced fencing and wooden field gates

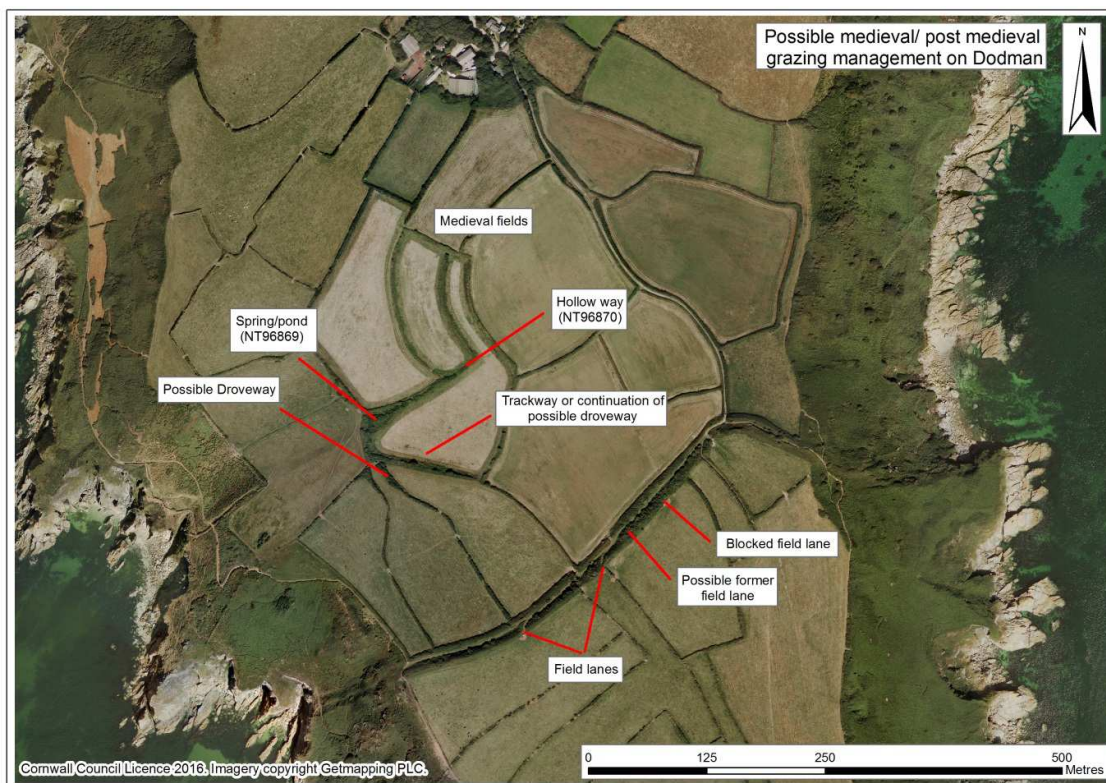


Figure 57 Suggested relationship of possible medieval or post medieval drove way, spring and field lanes to the south of Penare

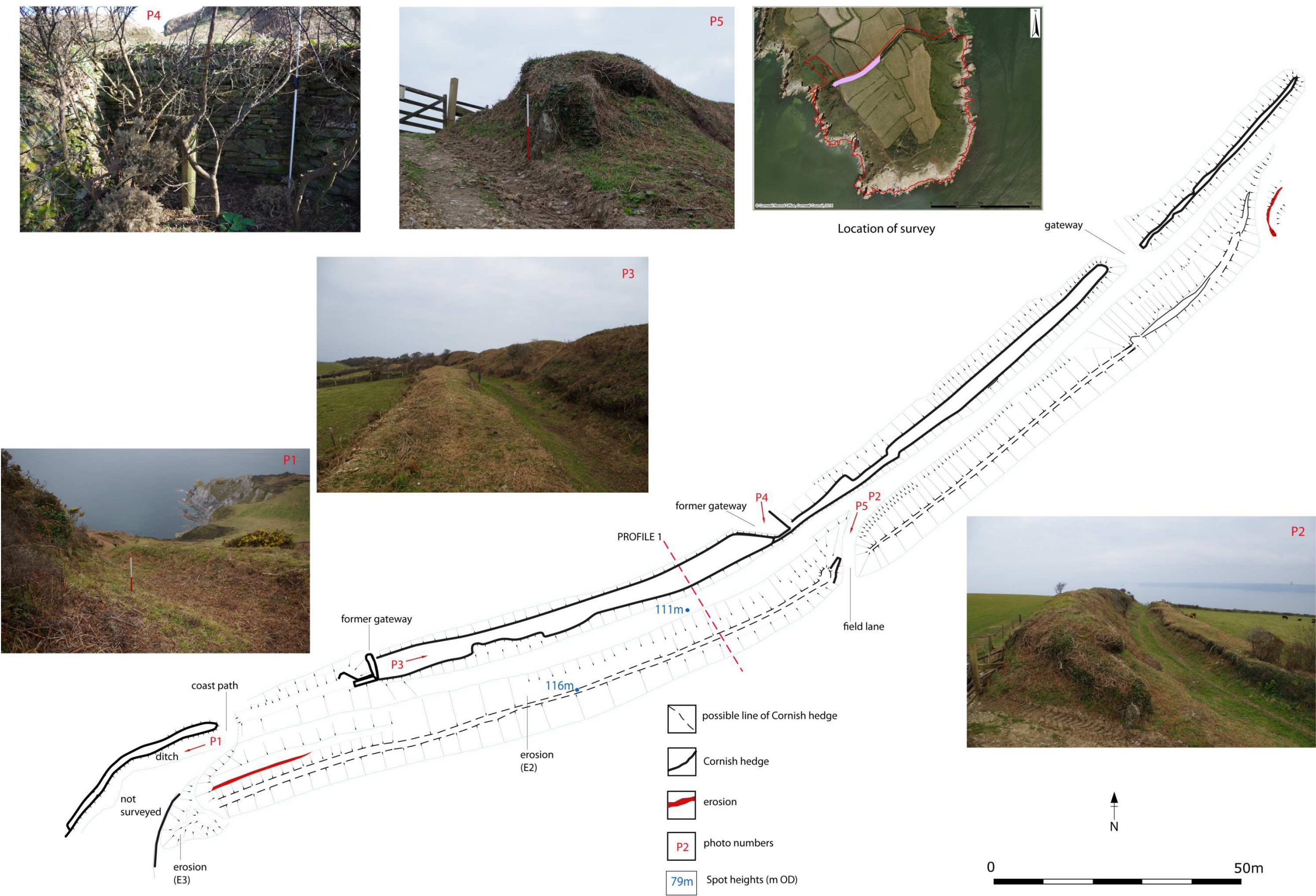


Figure 58 Survey drawing of the western section of the Bulwarks, with attached images. Profile 1 is included as a separate drawing (Fig 61) below



Figure 59 Survey drawing of the central section of the Bulwarks with attached images. Profile 2 is included as a separate drawing (Fig 61) below

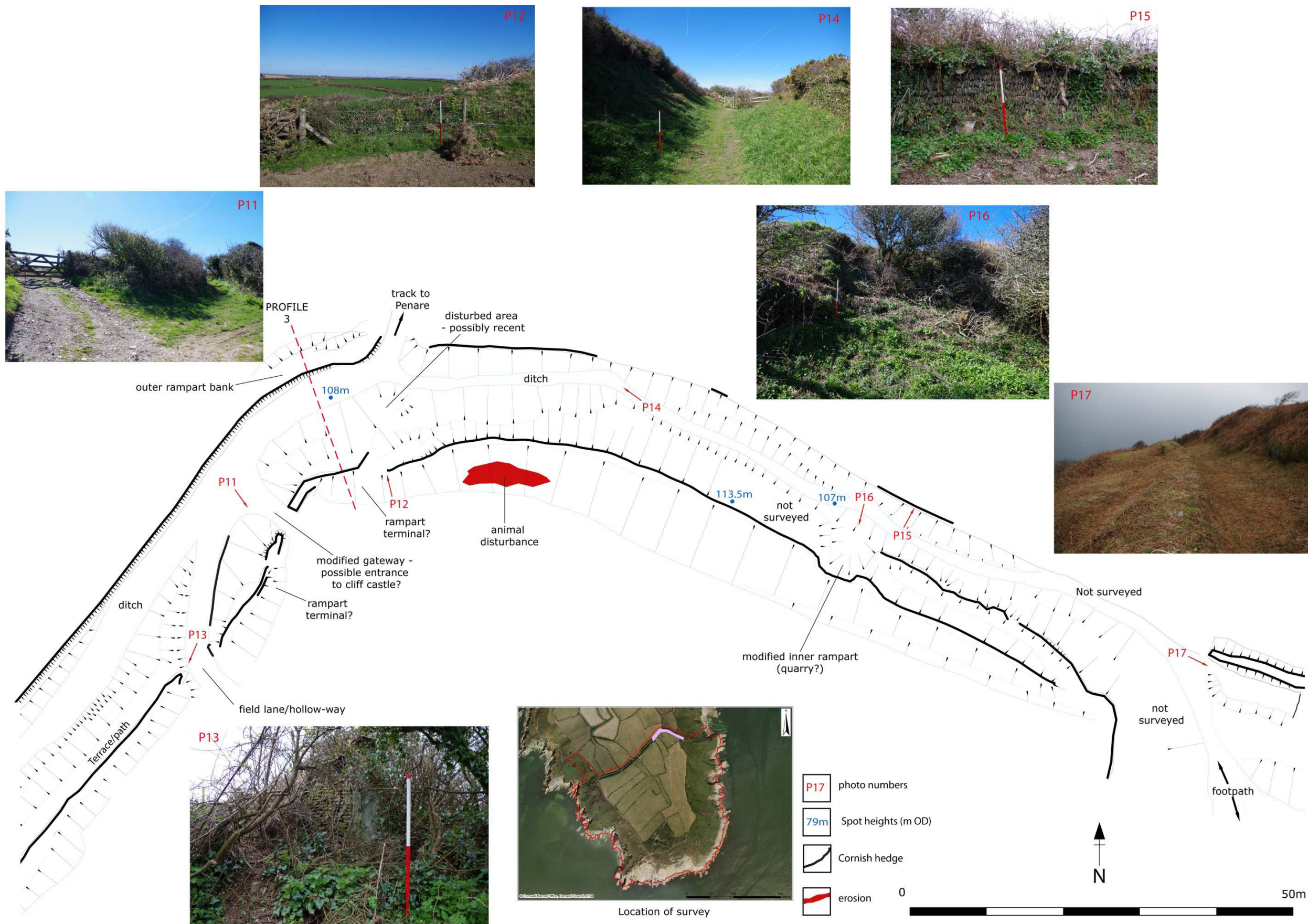


Figure 60 Survey drawing of the eastern section of the Bulwarks with attached images. Profile 3 is included as a separate drawing (Fig 61) below

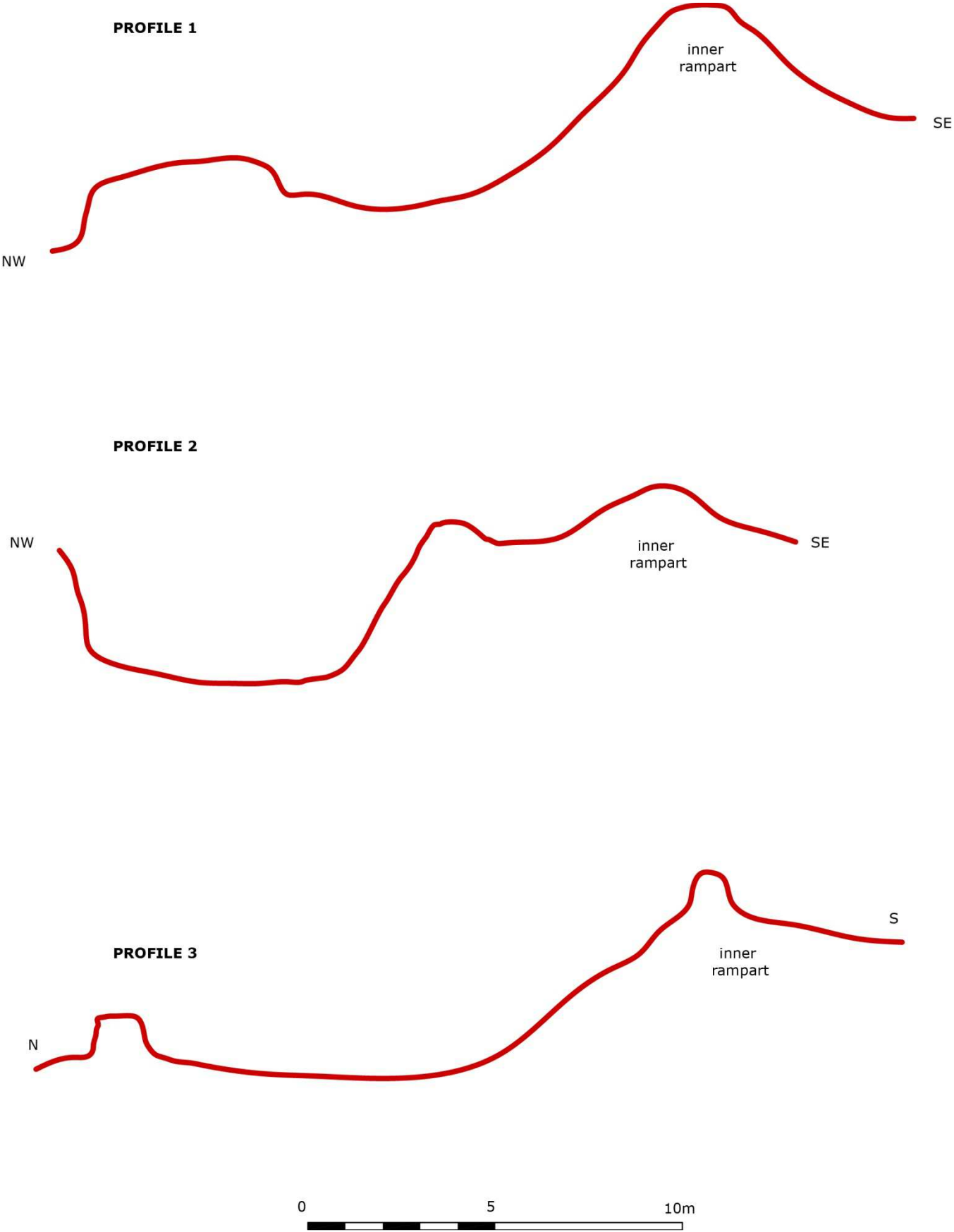


Figure 61 Profiles taken across the western, central and eastern sections of the Bulwarks

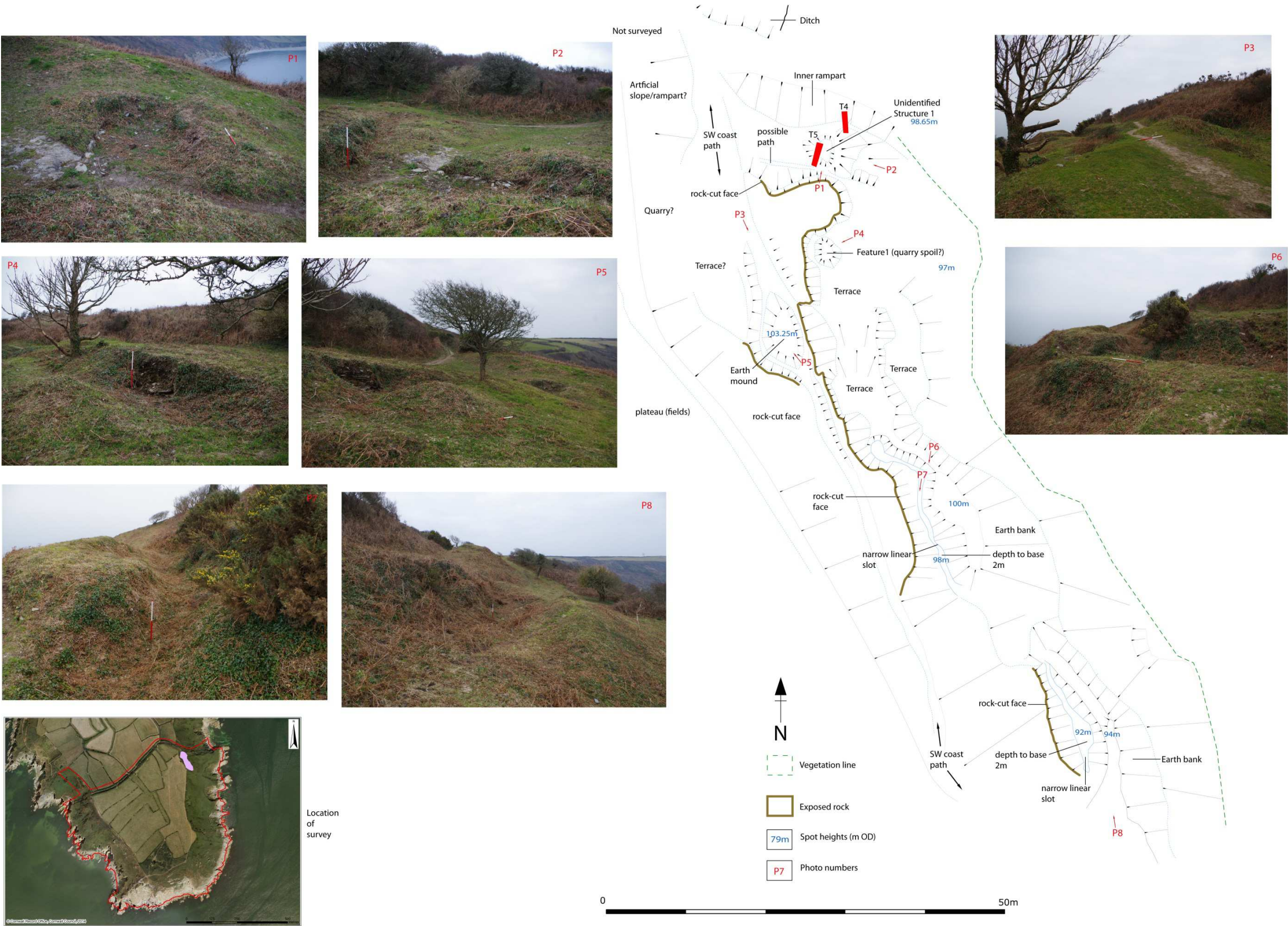


Figure 62 Survey drawing of the earthworks on the east side of Dodman Point with attached images

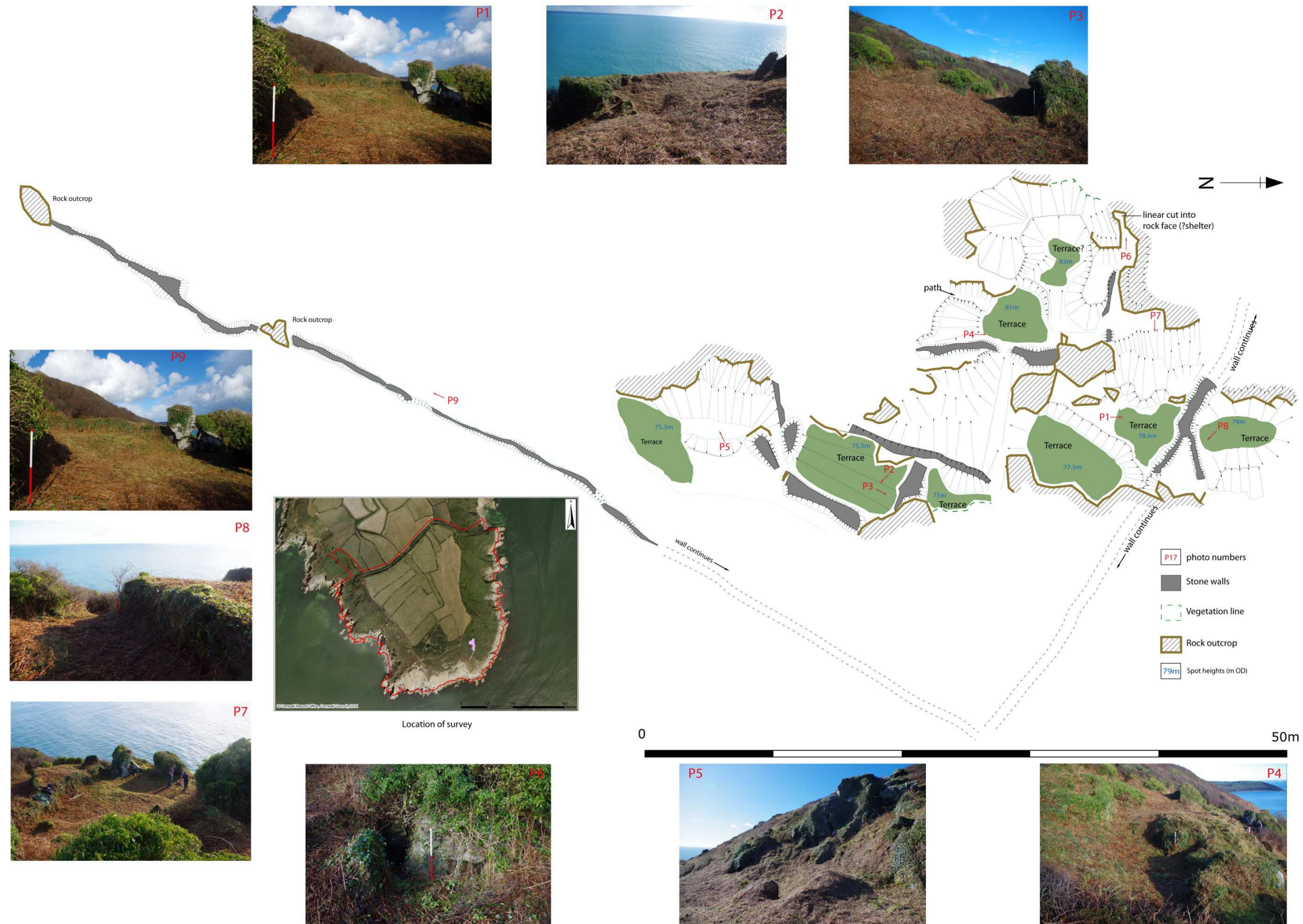


Figure 63 Survey drawing of the gardens at Dodman Horse with attached images.

Appendix 1: Table of contexts

Context Number	Site sub-division	Type (Cut/Deposit/Build)	Description	Depth (max)
101	Trench 1	Deposit	Topsoil and turf. Light greyish brown silty loam, friable, with a few small (<0.05m) angular slate stones. Sherd post medieval cream glazed pottery from this layer (not retained)	0.2m
102	Trench 1	Build	Large slate capstone around 0.55m in length, 0.05m deep	
103	Trench 1	Deposit	Secondary layer of earth bank. Mid reddish brown silty clay, friable but with some plasticity and containing some small angular slate stones (0.05-0.1m), a few larger angular slate stones (0.1-0.15m) and a fragment of quartz	0.45m
104	Trench 1	Deposit	Primary layer of earth bank. Dark reddish brown silty clay, friable but with some plasticity and containing some small angular slate stones (0.05-0.1m) and a few larger angular slate stones (0.1-0.15m).	0.35m
105	Trench 1	Deposit	Fill of ditch [106]. Dark brown friable silty clay containing some small (<0.05m) angular slate stones and some medium to large (0.18-0.25m) angular slate stones.	0.2m
106	Trench 1	Cut	Shallow ditch measuring about 1m wide from E to W and about 0.20m deep. Flattish uneven base cut into natural with laminated stones at base and on sides.	0.2m
201	Trench 2	Build	Stone wall topping, unexcavated. Stone wall on the N face of boundary 13, consisting of large angular slate stones of the type found locally to the site.	
202	Trench 2	Deposit	Topsoil and turf. Light greyish brown silty loam, friable, very rooty and containing a few small (<0.05m) angular slate stones	0.3m
203	Trench 2	Deposit	Topsoil and turf. Light greyish brown silty loam, friable, very rooty and containing a few small (<0.05m) angular slate stones	0.18m
204	Trench 2	Deposit	Upper layer of bank (cast up material). Pale yellowish brown silty clay, friable and slightly plastic, containing many small to medium (0.05-0.1m) angular slate stones	0.55m
205	Trench 2	Deposit	Middle layer of earth bank. Dark reddish brown silty clay, friable but with some plasticity and containing a few small (<0.05m) angular slate stones	0.55m
206	Trench 2	Deposit	Primary layer of earth bank. Mid reddish yellow silty clay, slightly plastic and containing some small (<0.05m) angular slate stones	0.15m
207	Trench 2	Deposit	Collapsed wall/bank. Dark brown friable silty loam, friable and containing many large	0.55m

			(0.18-0.24m) angular slate stones	
208	Trench 2	Deposit	Fill of ditch [209]. Very dark brown soft silty loam, friable and containing some small to medium sized (0.05-0.1m) angular slate stones	0.2m
209	Trench 2	Cut	Shallow sloping sided ditch with uneven base, cut into natural	0.2m
301	Trench 3	Deposit	Topsoil and turf. Light greyish brown silty loam, friable and containing a few small (<0.5m) angular slate stones	0.15m
302	Trench 3	Deposit	Compacted earth bank/ cast up material. Light yellowish brown silty clay, very compacted, with a concentration of compacted medium sized (0.05-0.10m) angular slate stones at its southern end	0.12m
303	Trench 3	Deposit	Slumped earth bank. Mid-reddish brown silty clay, decayed and powdery and containing a few small (<0.05m) angular slate stones	0.35m
304	Trench 3	Build	Lower section of stone wall facing the north side of boundary 16. Comprising large to very large (0.18-0.25m) angular slate stones, wall measuring 0.6m deep from north to south and around 0.4m high	0.4m
305	Trench 3	Deposit	Former land surface. Mid yellowish brown silty clay, friable but with some plasticity, and containing a few small (<0.5m) angular slate stones	0.15m
306	Trench 3	Deposit	Buried land surface. Very dark blackish brown silty clay loam with no stones	0.05m
307	Trench 3	Deposit	Fill of ditch [308]. Dark brown friable silty loam with much large (0.18-0.25m) angular stones; wall tumble from (304)	0.4m
308	Trench 3	Cut	Small flat based ditch cut into natural, about 0.3m across and 0.1m deep, with laminated stone set into its edge. A gently sloping rise in the natural to the north may also be artificial.	0.1m
401	Trench 4	Deposit	Topsoil and turf. Dark grey loam with matted roots from turf.	0.05m
402	Trench 4	Deposit	Dark yellowish brown compact silty clay, stone free, some hairline roots.	0.1m
403	Trench 4	Deposit	Possible former land surface. Mid dark greyish brown silty loam, organic and very rooty. Loose fresh sharp shillet up to 0.1m, aligned following tip line.	0.1m
404	Trench 4	Deposit	Possible former land surface. Dark greyish brown loose silty clay loam. Rooty and organic, some weathered bedrock up to 0.2m.	0.15m
405	Trench 4	Deposit	Upcast of earthworks to S of Bulwarks. Dark reddish brown compact silty clay. Very rooty. Few small sharp stones. Possibly intermixed with re-deposited upper fill from ditch [415]	0.4m
406	Trench 4	Deposit	Mid reddish brown loose silty clay loam. Very rooty. Very mixed, possible emergence zone	0.1m

			between (404) and (405).Very few small angular slatey stones <0.05m.	
407	Trench 4	Deposit	Tumble from ramparts mixed with possible former land surface. Dark greyish brown silty clay, rooty. Many stones of mixed size, fresh, not weathered. Slatey stones, some large (0.18-0.25m) and large quartz stones present. Rounded beach pebble from southern end.	0.18m
408	Trench 4	Deposit	Upper fill of ditch [415] and/or possible land surface. Very dark blackish brown slightly silty loam. Some small stones and larger slatey stones up to 0.2m, but pockets free of stone. Many matted bracken rhizomes within looser soil.	0.25m
409	Trench 4	Deposit	Inner rampart material. Dark reddish brown silty clay, friable. Much weathered quartz and shillet and a large angular stone (0.1-0.5m) at junction with overlying context (407).	0.2m
410	Trench 4	Deposit	Rampart material. Dark yellowish red silty clay, friable, slightly plastic, small shilletty platey stones, no quartz. Concentration of stone in centre above cut of ditch [415] may indicate the base of a stone revetment.	0.25m
411	Trench 4	Deposit	Lower rampart material. Very dark reddish brown silty clay loam, friable, slightly plastic. Some small angular slatey stones and a few larger slatey stones up to 0.2m. Holed stone from edge of ditch [415].	0.08m
412	Trench 4	Deposit	Lower rampart material. Mid reddish brown compact silty clay, plastic, many medium to large slatey stones up to 0.2m and aligned with slope. Not fully excavated.	
413	Trench 4	Deposit	Secondary fill of ditch [415], probably comprising slumped rampart material. Mid reddish brown silty clay, with a greyish hue. Many small fractured shillet fragments.	0.1m
414	Trench 4	Deposit	Lower fill of ditch [415], may incorporate/comprise slumped rampart material. Mid yellowish red silty clay. Not compact but not friable. Some tiny fragments and larger blocks of shillet set into surface. Not excavated.	
415	Trench 4	Cut	Probable ditch. Sloping cut observed on north side and containing (413) and (414), but full extent not excavated.	
416	Trench 4	Deposit	Upper fill of ditch [415], possibly weathered surface of (417). Vary dark reddish brown friable silty loam, much crushed weathered shillet, 30 to 40%, tiny fragments. Some larger slatey stones to north towards edge of rampart. Holed stone from this context.	0.08m
417	Trench 4	Deposit	Upper fill of ditch. Dark grey brown silt and decayed shillet. High density of shillet blocks (60 to 70%) and some voids, with a hollow sound overall. Probably a rapid phase of infill, possibly deliberate. Overlying deposit (415) probably a weathered surface of (417). Not fully excavated.	
501	Trench 5	Deposit	Vegetation and turf	

502	Trench 5	Deposit	Topsoil of mid greyish brown silty loam, stone free, rooty	0.2m
503	Trench 5	Deposit/Build	Several roughly coarsed layers of large sub angular slatey stone. Weathered bedrock stones following plane of bedrock, but possible build, although bedrock in this area is typically laminated layers of large loose slatey stone. Does appear to be part of a roughly formed structure.	0.2m
504	Trench 5	Deposit	Bedrock face. A cut feature [505] extends away NE from its N end at around a 45 degree angle, extent not fully excavated.	
505	Trench 5	Cut	Rock cut feature, possible linear feature, cut edge runs NE away from bedrock face (504) at approximately 45 degree angle, full extent unknown.	
506	Trench 5	Deposit	Turf layer	0.05m
507	Trench 5	Deposit	4cm layer of clinker and soil overlying large stone slabs. Possible path?	0.04m
508	Trench 5	Deposit	Dark blackish brown silty clay loam, rooty.	0.08m
509	Trench 6	Deposit	A layer of large sub angular slate stones, flattish on their upper surface and bedded into (510). They appear re-used and may be deliberately set to form part of a pathway along the north side of a cut terrace to the south.	0.05m
510	Trench 5	Deposit	Mid brown fine silty loam, stone free, rooty	0.15m
511	Trench 5	Deposit	Dark blackish brown silty clay, quite compact. Quite organic and rooty. Sherds of cream and green glazed china, probably late 19th or early 20th century, from south end of this context.	0.25m
512	Trench 5	Deposit	Blackish brown silty loam, loose, formed between horizontally positioned slate slabs up to 20cm long, 4cm deep, angular but not strikingly fresh. Rooty. Holed stone from S end of this context.	0.1m
513	Trench 5	Deposit	Rusty reddish brown silty clay, slightly plastic, with tiny weathered slate fragments, rooty.	0.04m
514	Trench 5	Deposit	Mid greyish brown weathered shillet. Quite silty but much slatey fragments and very rooty.	0.04m
601	Trench 6	Deposit	Topsoil and turf. Mid-greyish brown silty loam containing a few small (<0.05m) angular slate stones, very rooty	0.1m
602	Trench 6	Deposit	Upper layer of earth bank. Dark grey compacted silty clay containing up to 60% small sub angular stone fragments. May be cast up, very compacted due to stock trample, slight slump over ditch fill (603)	0.2m
603	Trench 6	Deposit	Secondary fill of ditch [606]. Dark brown soft silty loam, organic and humus-rich and essentially stone-free excepting a few large stones (0.18-0.25m), thought to be wall	0.4m

			tumble. Darker and wetter at base of layer.	
604	Trench 6	Build	Earth bank with vertical edge facing south and topped by row of re-used weathered bedrock stones, possibly the base of a stone wall sitting on top of earth bank..	0.3m
605	Trench 6	Deposit	Primary fill of ditch [606] derived from slumped earth bank. Mid reddish brown silty clay loam, friable and slightly plastic, small shillett fragments of sub-angular decomposed bedrock, 25% to 30%.	0.2m
606	Trench 6	Cut	Wide shallow ditch with uneven flat bottomed base and shallow sloping sides, cut into natural, measuring around 1.2m wide and 0.2m deep.	0.2m
607	Trench 6	Deposit	Weathered subsoil. Mid yellowish brown silty clay, slightly plastic, many small slatey angular stones. Possibly the base of a strip lynchet as directly below current topsoil (601), no intermediate layers.	0.15m
WB (Water Pipeline)				
701	Trench 7	Deposit	Topsoil and turf. Mid greyish brown silty loam, rooty and relatively stone-free.	0.2m
702	Trench 7	Deposit	Mid yellowish red silty clay with much small to medium (0.05-0.1m) sub angular slate stones. Junction with (707) to north unclear, may merge with (707) and (708) towards N end of rampart.	0.4m
703	Trench 7	Deposit	Deposit of very loose small to medium (0.05-0.1m) sub angular slatey stones. Lightly weathered bedrock fragments, potentially redeposited to form part of rampart build (a later phase of refortification?). Not fully excavated.	0.1m
704	Trench 7	Deposit	An indistinct and narrow layer of mid yellowish red silty clay. Not consistently present.	0.05m
705	Trench 7	Deposit	Buried soil surface. A narrow layer of dark blackish brown silty loam, clean and containing a few small (<0.05m) sub angular slate stones. Organic and humic content, including wood and charcoal. Same as (906)?	0.1m
706	Trench 7	Deposit	Inner rampart material. Dark yellowish red silty clay, quite plastic, with much fragments of small (<0.05m) sub angular slate stones. Appears darker at base. Possible that (704) may be re-deposit from this layer. Not fully excavated.	
707	Trench 7	Deposit	Rampart material. Mid to dark reddish brown silty clay with much small to medium (0.05-0.1m) sub angular slate stones (40%). May be same as (708), although darker in colour, junction between (707) and (708) uncertain. Not fully excavated.	
708	Trench 7	Deposit	Ditch fill/subsoil. Light to mid reddish brown silty clay with much (50%) fragments of weathered bedrock fragments (shillet) and some small (0.05m) slatey stones. May be	0.2m

			redeposited or slumped rampart material.	
709	Trench 7	Deposit	Light yellowish brown silty clay containing much shilletty fragments. Subsoil, not fully excavated. No sign of ditch fill.	
801	Trench 8	Deposit	Turf and topsoil. Mid greyish brown silty loam, rooty, relatively stone-free, some mixed redeposited small to medium (0.05-0.1m) slate stones towards southern end. Same as (701).	0.1m
802	Trench 8	Deposit	Mid greyish brown silty loam with much loose medium to large (0.1-0.2m) sub angular slate stones. Redeposited material from earlier modern pipe trench, may include some mixed material from (803).	0.25m
803	Trench 8	Deposit	Rampart material? Mid to dark reddish brown silty clay with much small to medium (0.05-0.1m) sub angular slate stones (40%). May be same as (804) but darker in colour. Junction between (803) and (804) uncertain.	0.5m
804	Trench 8	Deposit	Rampart material? Light to mid reddish brown silty clay with much small to medium (0.05-0.1m) sub angular slate stones (40%). May be same as (803) but lighter in colour and less yellow in hue. Junction between (803) and (804) uncertain. Not fully excavated.	
805	Trench 8	Deposit	Rampart scarp (natural or redeposited?). Laminated thin slatey bedrock, slightly sloping from north to south and with a light to mid reddish yellow silty clay matrix. May be the same as (806) but the soil matrices are different; (805) may be mixed with (804). Not fully excavated.	
806	Trench 8	Deposit	Rampart scarp (natural or redeposited?). Laminated thin slatey bedrock, slightly sloping from north to south and with a light brownish grey silty clay matrix. May be the same as (805) but the soil matrices are different; (806) may extend under (805) to south but not fully excavated.	
807	Trench 8	Deposit	Light to mid yellowish brown silty clay subsoil and slatey bedrock fragments, not fully excavated.	
901	Trench 9	Deposit	Topsoil and turf - mid greyish brown silty loam with much tiny fragments slatey stone, topped with turf.	0.15m
902	Trench 9	Deposit	Mid brown silty clay loam with much small shilletty sub angular stones. Approx 0.15m deep but deeper at S end, up to 0.35m	0.35m
903	Trench 9	Deposit	Mid to dark reddish brown silty clay, plastic, with few fragments sub angular shilletty stones - may be the same as (904) - possibly truncated by insertion of field lane.	0.35m
904	Trench 9	Deposit	Mid to dark reddish brown silty clay, plastic, with few fragments sub angular shilletty stones. May be the same as (903) - possibly truncated by insertion of field lane. Comes in	0.3m

			towards N end of trench and may continue across (906) as shallow layer, not distinct.	
905	Trench 9	Deposit	Much loose large slatey stone up to 0.2 to 0.3m. Soil within is a mid yellowish brown silty clay. Distinct profile to this context; may be in-situ bedrock or re-deposited as part of rampart build.	0.45m
906	Trench 9	Deposit	Very dark blackish brown silty loam, almost stone free, only very few small sub angular stones. High wood and organic content, very humic. Probable buried soil - sample taken (1l bag). Same as (705)?	0.25m
907	Trench 9	Deposit	Dark reddish brown silty clay, very plastic, few small slatey stones and fragments of quartz, rooty.	0.25m
908	Trench 9	Deposit	Light yellowish brown silty clay containing much small slatey stones (not fully excavated).	0.09m

Cornwall Archaeological Unit

Fal Building, County Hall, Treyew Road, Truro, Cornwall,
TR1 3AY

(01872) 323603
enquiries@cau.org.uk
www.cau.org.uk

