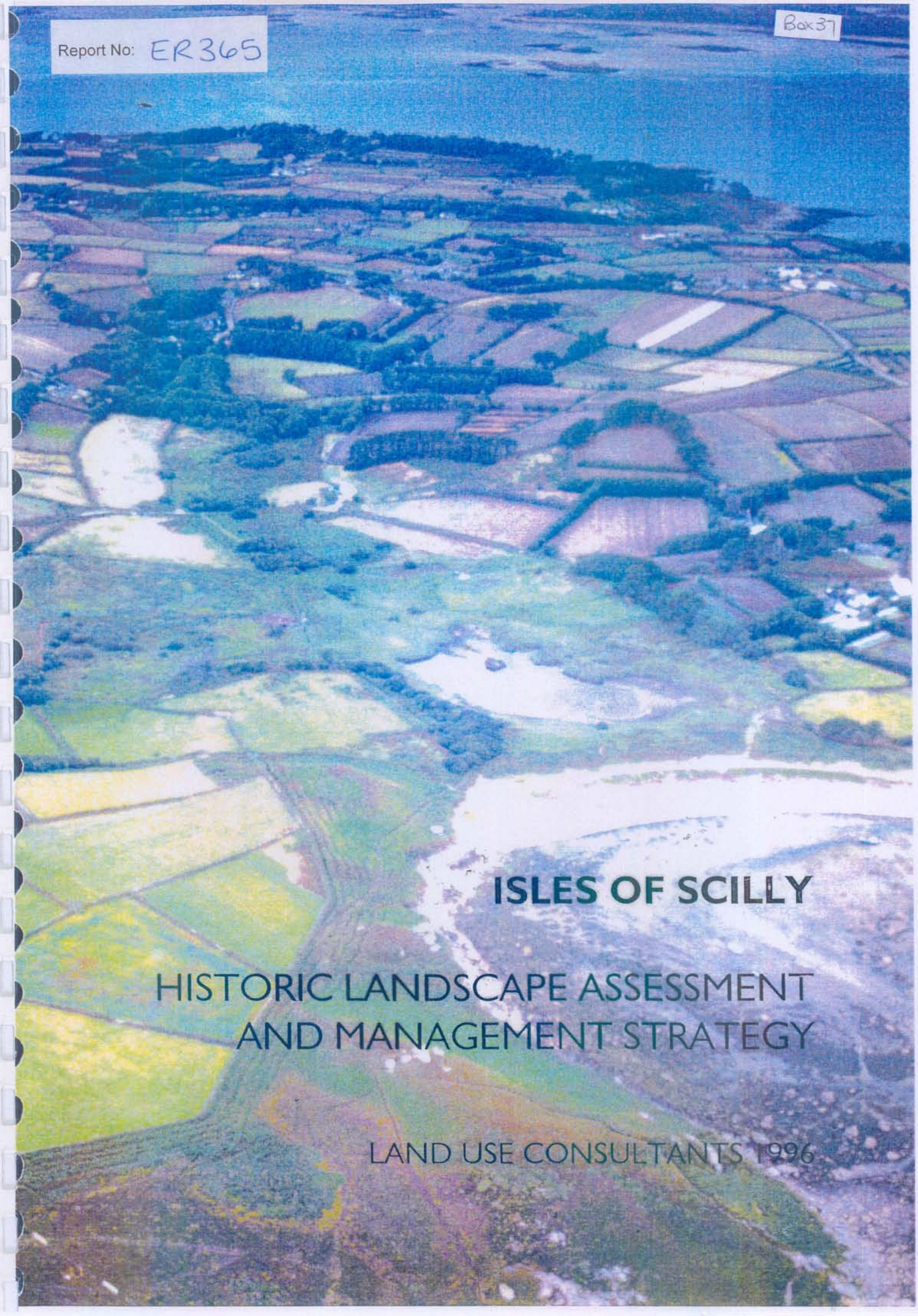

ISLES OF SCILLY

HISTORIC LANDSCAPE ASSESSMENT AND MANAGEMENT STRATEGY

LAND USE CONSULTANTS 1996

EJR1669

LAND USE CONSULTANTS
ENVIRONMENTAL PLANNING, DESIGN AND MANAGEMENT

ISLES OF SCILLY HISTORIC LANDSCAPE ASSESSMENT AND MANAGEMENT STRATEGY

For the Preparation of
Countryside Stewardship and
Other Grant Applications

Prepared for

The Duchy of Cornwall
in partnership with
the Countryside Commission and M.A.F.F.

by

Land Use Consultants

in association with
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and
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The Project Team responsible for this report consisted of:

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Rosemary Parslow, BSBI Recorder for the Isles of Scilly provided additional input.

Front cover: *St. Mary's, Porth Hellick*
CAU flight. 1987

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1.0 INTRODUCTION

PURPOSE AND AIMS

1.1 This report results from a study undertaken to assess the landscape of the Isles of Scilly with particular reference to the enclosed agricultural land, and, based on this, the preparation of a strategy to guide its future management. The study was commissioned by the Duchy of Cornwall in partnership with the Countryside Commission. The management strategy is intended to provide guidance for MAFF in the implementation of the Countryside Stewardship Scheme. (The Scheme transfers to MAFF from the Countryside Commission on 1st April 1996).

1.2 The Duchy of Cornwall is the majority freeholder of all land and buildings on St. Mary's and, with the exception of churches, owns the whole of the off-islands, including Tresco. With very few exceptions all land and buildings owned by the Duchy are let in one form or another, either for agricultural or non-agricultural businesses or residential purposes - a sum total of 500 lettings, which includes the unenclosed land which is let to the Isles of Scilly Environmental Trust.

STRUCTURE OF THE REPORT

1.2 The report divides into four parts. These are briefly summarised below:

Part 1: Evolution of the Landscape: The first part of the report aims to draw out the special qualities of the islands landscape which is designated as an Area of Outstanding Natural Beauty (AONB), Heritage Coast and Conservation Area, and to trace the evolution of the landscape through time. It is recognised that all of the Scillonian landscape is historic and a particular emphasis is placed on identifying its historic character by defining a series of historic landscape types. The section concludes with a chapter on the current agricultural management of the island, which identifies how farming has been, and is still, largely responsible for shaping the character of the landscape.

Part 2: The Character of the Landscape: The landscape assessment draws together the information from Part 1 to identify 13 distinct landscape types. The key characteristics of each landscape type are described and the general management issues relating to each are outlined. This understanding of the variations in landscape character is essential to enable Countryside Stewardship to be targeted to meet particular objectives and enable the landscape's special character to be conserved and enhanced.

Part 3: The Management Strategy: The management strategy begins by identifying the key forces for change that could undermine the special character of the Scillonian landscape and goes on to formulate a series of Island-wide management objectives. The management strategy itself focuses on the enclosed land and is presented on an island by island basis, with recommendation for each landscape type.

The management strategy identifies what is required to:

- conserve valued characteristics;
- restore degraded landscapes and features; and, where appropriate,
- create new habitats and landscape features.

The strategy provides a valuable estate management tool setting out broad guidelines and detailed practical management options that can be implemented through future Countryside Stewardship Agreements.

Part 4: The Case Studies: Two typical sites, one on St. Mary's and one on Bryher have been chosen as case studies. These sites are representative of the type of landscapes that can be found on the islands and depict the range of conditions that might be encountered in preparing a Countryside Stewardship Agreement. A Stewardship application has been prepared for each site to provide a model for future Agreements, and general guidance on the method of preparing the application. The case studies include a general management code for the enclosed land of Scilly as well as specific land management measures and capital items.

PART 1:

EVOLUTION OF THE LANDSCAPE

2.0 PHYSICAL INFLUENCES

2.1 The Isles of Scilly are the most westerly land of Great Britain and comprise an archipelago of some 200 granite islands and rocks lying in the Atlantic approximately 40km south-west of Land's End. Of these islands only about 50 support vegetation and only five are currently inhabited. The five large, inhabited islands lie at the north east end of the archipelago and are separated by a shallow interior sea. This enclosed sea steadily deepens towards the isolated rocks at the south-west end of the group.

TOPOGRAPHY

2.2 The Islands were originally part of a continuous oval mass of granite similar to that of Bodmin Moor, Dartmoor and Exmoor of mainland Devon and Cornwall. The erosion and partial submergence by the sea of this granite mass has resulted in the formation of the archipelago with individual islands varying greatly in size and in the height to which they rise above the water. While the smallest islands of the Western Rocks and Eastern Isles may be little more than rocky projections, the five inhabited island are much larger in size covering a total area of 1422 ha, as follows:

Bryher	126 ha
St. Agnes	148 ha
St. Martin's	222 ha
St. Mary's	629 ha
Tresco	297 ha

2.3 Despite rarely rising more than 30 m above sea level there is a remarkable variety and diversity both within and between the individual islands. Each island has a distinctive topography and configuration varying from the gently undulating interior of St. Mary's which rises to the highest point on the islands at 48m at Telegraph Hill, to the series of hills, hollows and valleys that make up Bryher, which in turn are contrasted with the long east-west granite spine of St. Martin's, and the rounded flat topped island of St. Agnes. The islands also differ according to the degree of exposure they receive. The outer sides of the island group , that is the north and west coast of Bryher, north coast of Tresco and St. Martin's, and the south facing coast of St Mary's and St. Agnes are generally much harsher with a rugged, rocky coastline exposed to the full force of the Atlantic. By contrast, the coastline fronting the interior sea is more sheltered and includes broad, gently shelving sandy beaches and coves.

2.4 There is only one true example of a freshwater stream on the Isles of Scilly. It is fed by a spring which rises at Holy Vale on St. Mary's and flows within a shallow valley towards Higher Moors and Porth Hellick Pool. However, maritime and freshwater pools occur on most of the islands.

2.5 The differences between the islands are expanded further in Chapter 8.0 Island Descriptions.

GEOLOGY

2.6 There are two main types of granite. The coarser grained variety is found predominantly around the outer edges of the island group and has at some locations been weathered into distinctive tors, for example at Peninnis Head and Wingletang Down. The finer grained granite forms the central part of Scilly and can be found in the north and west of St. Mary's, and south Tresco and Bryher. Material formed by the denudation of the granite is an important component of the islands geology, forming deposits of head (locally known as 'ram'). Among the head is a sandy 'iron-cement' which was traditionally used as a mortar in the construction of buildings and hardcore for roads, and may also have been used to create the lining (either man-made or natural) for the freshwater pools found on many of the islands. Blown sand also forms an important part of the geology, either cloaking the underlying granite, for example on the Plains area of St. Martin's, or uniting separate granite masses as one island such as the sandy neck linking the Garrison with the rest of St. Mary's, or that linking St. Agnes with the Gugh. There are only two areas of alluvium on Scilly, at the Higher and Lower Moors on St. Mary's.

2.7 An outlier of sub-angular gravel, composed of chalk flint and Greensand - chert caps the highest part of St. Martin's at Chapel Down. This material is similar to the Eocene river gravels of Devon and Dorset and is in itself also a remnant of an old valley-gravel of this date, which suggests that the islands may be the last relic of an old table-land over which the Eocene rivers, probably radiating from Dartmoor, flowed outwards across what is now part of the Atlantic.

2.8 The geology of the islands is illustrated in Figure 2.1.

SOILS

2.9 The geology has created diverse soil conditions and the soil pattern on the Islands is closely related to land use. Most of the soils that have developed on the granite are podzolised soils, although as many of their original features have been destroyed or obscured through having been intensively cultivated over a long timescale.

2.10 The most common soils on the enclosed parts of the Islands are brown podzolic soils. Deeper, moisture retentive and more fertile soils have developed on the 'head' materials and are often cultivated as bulb strips. Peaty topsoils have developed over the alluvium on St. Mary's where the soils are affected by high groundwater and are water-logged for much of the year. These peats are considered to be a rich palaeoenvironmental resource.

CLIMATE

2.11 The distinctive climate of Scilly sets it apart from the mainland, as much as the 40 km intervening stretch of ocean. The climate is dominated by a westerly air stream and the frontal depressions which move across the Atlantic. Warmed by the Gulf Stream, temperatures are mild throughout the year - cooler in summer and warmer in winter than the mainland with an average monthly mean of 9°C, and a virtual absence of severe frost. There is low rainfall (average 825 mm per year), although moisture is also

deposited as sea fogs. Scillonian air is characterised by its extreme purity due to lack of airborne dust and industrial pollutants.

2.12 The mild winters allow sub-tropical plants to flourish, many of which have now naturalised and form part of the islands' distinctive flora. An exceptionally rich lichen flora also thrives in the pure air.

2.13 The beneficial effects of the climate are tempered by the exposure of much of the islands to Atlantic storms and frequent strong winds and the effects of salt spray. The Islands are also characterised by their unpredictable and rapidly changing weather conditions.

A DROWNED LANDSCAPE

2.14 The islands and rocks existing today once formed part of a much larger land mass which was inundated, in relatively recent times, by the sea. While the Islands have been separated from mainland Britain for many thousands of years, the depth of water between them is so shallow that Bryher, Tresco and Samson are still joined at Low Astronomical Tide (LAT) and a fall of only 10m would unite them all, except St. Agnes and the Western Rocks. Scilly, therefore, represents a 'drowned landscape' illustrated by the existence of causeways linking the islands, submerged stone field boundaries and other archaeological sites within the intertidal zone of the shallow interior sea.

2.15 An archaeological model for the submergence of Scilly has been published by Professor Charles Thomas (Thomas 1985). In the absence of radiocarbon dates from the intertidal zone to calculate sea level change since 3000 BC, he used the vertical positions of submerged archaeological sites which could be broadly dated from artefactual evidence or by analogy with sites elsewhere. He assumed that these sites were originally located just above the contemporary shoreline, at 1.8 metres above high astronomical tide (5.3 metres above mean sea level), and that the tidal range of Scilly has remained constant for the last 5000 years - that is 6.4 metres between high and low astronomical tide. Having plotted the vertical positions of the dated sites in relation to present mean sea level, he was able to calculate the height of the latter for the periods when the sites were in use, by subtracting 5.3 metres in each case. Thomas then adjusted the results of this calculation by introducing a downward deflection of 2 centimetres at 1000 AD and doubling this deflection at 5 century intervals. In this way he changed his sea level/age line into a curve, which indicated that around 3000 BC mean sea level was almost 17 metres below that of today. The curve for Scilly is much steeper than that for Newlyn or the Bristol Channel. Thomas suggests that this difference is the result of a very localised downward displacement of Scilly's granitic laccolith in addition to more general isostatic movement.

2.16 According to Thomas, his model represents an average yearly rise in sea level of 2.1-2.6mm, which means 21-26cm every 100 years and 2.1-2.6m every 1000. However although Thomas' model assumes that the submergence of Scilly was a gradual process, he recognised that there may be an alternative scenario, in that it could also have been the result of more dramatic events such as tidal surges (the displacement of huge volumes of water in a particular direction).

2.17 Perhaps the most controversial aspect of Thomas's model is his suggestion that today's islands did not finish forming until relatively recent times. He postulated that until the end of the Roman period all of the islands (excluding St. Agnes, Gugh and Annet) were joined together at high water, and that as recently as the 11th century AD the position was still the same at low water, and that separation was not complete until the early Tudor period. He has used the distribution of Cornish and English coastal and shore place names to support this hypothesis. The early pre-16th century Cornish forms are restricted to the outer coasts and rocks of today's islands, while the later English names populate their inward facing shores.

2.18 In recent years intertidal 'peat' deposits have been identified around Scilly's present coast and palaeoenvironmental assessment of these has indicated they have potential for providing sea level index points, which can be used to check and refine Thomas' model. The initial results of the assessment suggest that the sea level curve for Scilly may not be as steep as indicated by the current model. Detailed sampling and analysis is required to confirm this and further enhance understanding of sea level change in the Islands.

Appendix E
ARCHAEOLOGICAL SURVEY
Case Study 2: St. Mary's

(w- wide, h- high, d- deep in metres)

- **Boulder Wall 0.5 w, 0.6 h**
- **Dry stone Walls 0.3-0.4 w, 0.6-1.2 h**
- **Stone Face Earth Walls 0.7-1.5 w, 0.5-1.5 h**
- **Ditch 1.0-w, 0.1 d**
- **Stone faced stone wall**
- **Hedges**
- **Pine trees**
- **Elm trees and suckers**

Historic Features within Fields

1. Scarp representing east side of hollowed trackway
2. Low banks (1.1 w, 0.6 h) -remains of former boundaries
3. Humps and hollows which could be remains of historic features (or natural outcrops)
4. Bronze age Menhir (standing stone)
5. Group of granite sheds and barns within walled yard (some in use, one ruined)
6. Concrete and granite sheds within walled yard (in use)
9. Granite stile built into wall
10. Cairn

L Lynchetted boundaries

Management

T Lengths of tumbled walls requiring repair

T 8 Wall of which only base now survives owing to its deliberate gradual removal by farmer Note. must be retained.

7. Unique boundary - present form may be result of previous robbing/ dismantling

5&6 Retain farm buildings - consolidate walls of ruined structures

0 25 50 100 150 200 250m

NORTH

NORTH

Round Island

White Island

St. Helen's

St. Martin's

Tean

Bryher

Tresco

Eastern Isles

Norrard Rocks

Samson

St. Mary's

Annet

Gugh

St. Agnes

Western Rocks

Isles of Scilly
Fig 2.1: GEOLOGY (Simplified)

KEY

- Blown Sand
- Alluvium
- Head
- Gravel
- Granite

0 1 2 3km

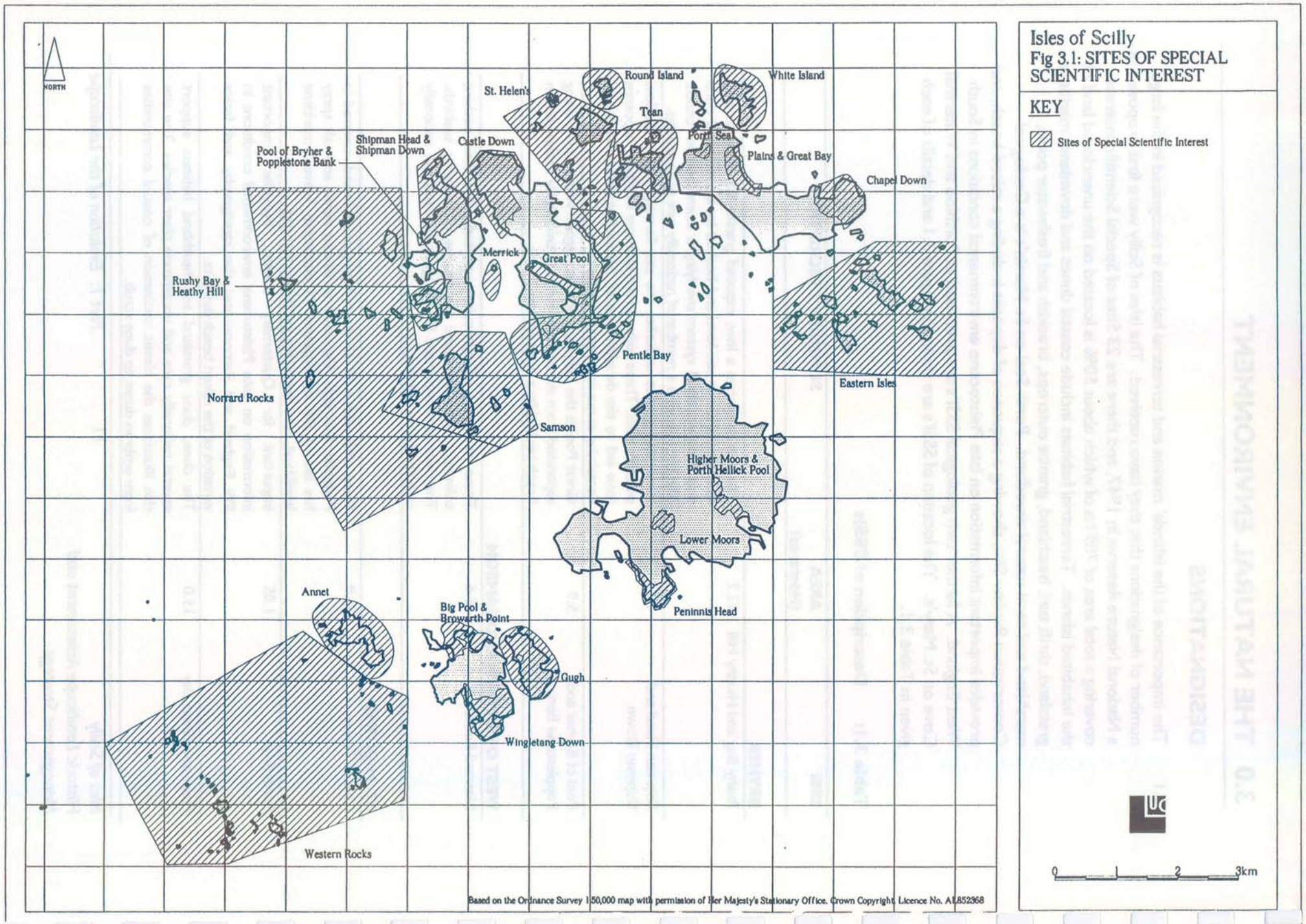
3.0 THE NATURAL ENVIRONMENT

DESIGNATIONS

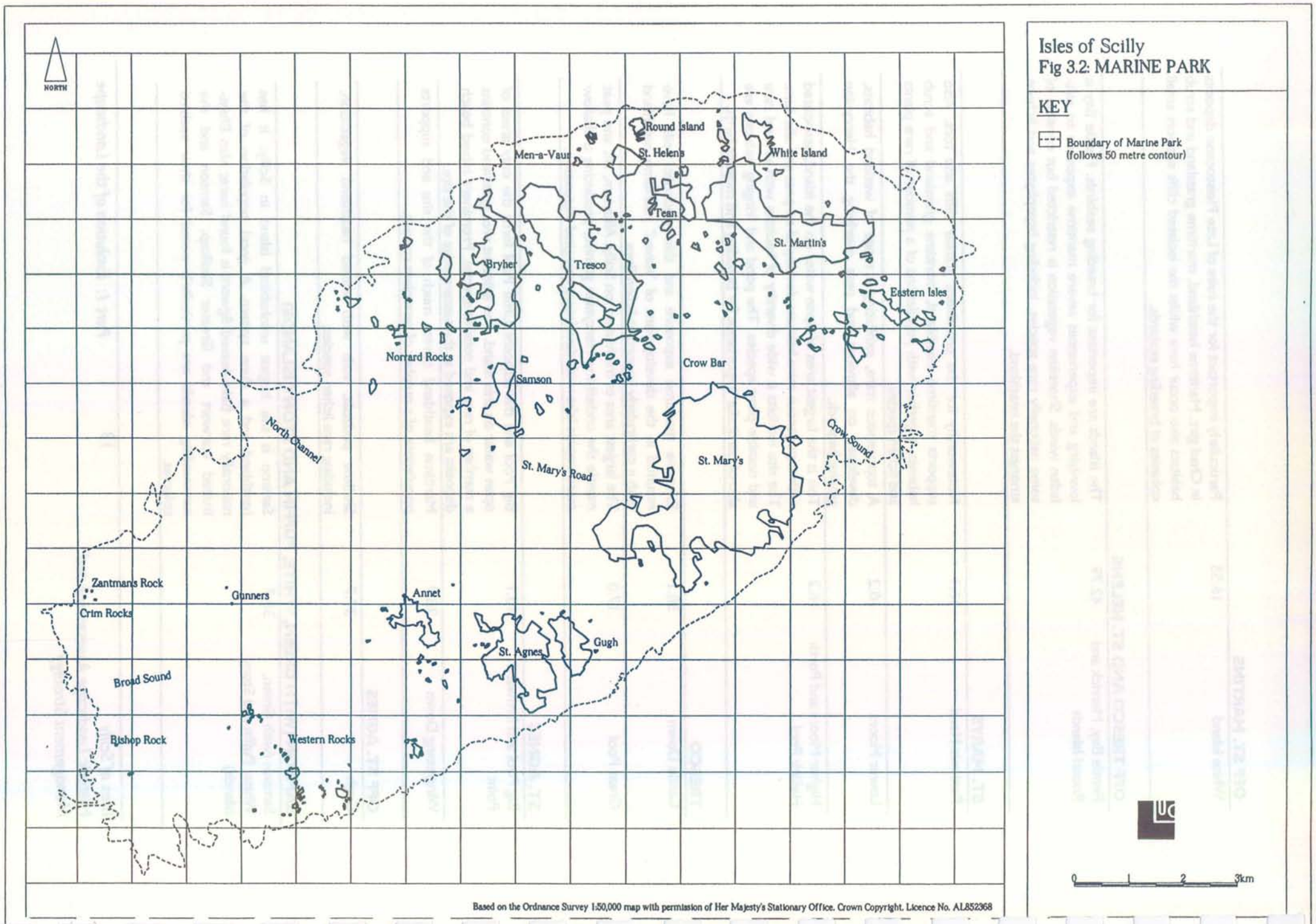
3.1 The importance of the Islands' marine and terrestrial habitats is recognised in the large number of designations that they have received. The Isles of Scilly were first proposed as a National Nature Reserve in 1947, and there are 23 Sites of Special Scientific Interest covering a total area of 789 ha of which about 50% is located on the unenclosed land of the inhabited islands. Terrestrial habitats include coastal dunes and downland, maritime grassland, thrift turf, heathland, granite outcrops, brackish and freshwater pools, marshland and semi-natural woodland. Porth Seal on St. Martin's is a Geological Conservation Review Site, showing a sequence of deposits including a raised beach, and provides important information on late Pleistocene environmental conditions in South West England. A further two geological SSSI's are proposed at Porthloo and Watermill Cove on St. Mary's. The location of SSSI's are shown in Figure 3.1 and details of each given in Table 3.1.

Table 3.1: Description of SSSIs

SSSI	AREA (Hectares)	SUMMARY DESCRIPTION
BRYHER		
Rushy Bay and Heathy Hill	12.2	The site comprises a low, exposed granite hill, rising to only ten metres above sea-level and backed by a small sand dune and dune grassland system overlying a storm boulder beach. The site supports a number of nationally rare plant species.
Shipman Head and Shipman Down	40.7	Hercynian granite underlies the site forming mainly shallow podzolic soils. These soils and the extreme maritime exposure have led to the development of 'waved' maritime heathland containing some rare lichen species.
Pool of Bryher and Popplestone Bank	5.9	Great Pool is the only true brackish lagoon within Scilly, being separated from the sea only by a narrow, highly mobile storm beach backed by a dune system.
WEST OF BRYHER AND SAMSON		
Norrard Rocks	35.6	These rocks are of particular importance for their seabird colonies, supporting some ten species of breeding seabirds. They are also important for the grey seal and the nationally restricted rove beetle.
ST. MARTINS		
Chapel Down	34.9	Steep cliffs with a 30-35 metre high plateau inland, covered in Podzolic, thin soils. Exposure to severe winds and salt spray has led to the development of distinctive 'waved' maritime heathland. Also important geological features.
Porth Seal	1.05	Important for Quaternary studies. Provides important information on Late Pleistocene environmental conditions in SW England and demonstrates the stratigraphy and facies variation of the raised beach deposits.
Plains and Great Bay	15.0	The dune, dune grassland and heathland habitats support several nationally rare and uncommon plant species. The site also illustrates the classic succession of coastal communities from embryo dunes to dune scrub.


NORTH
Round Island
White Island
St. Helen's
Tean
Porth Seal
Plains & Great Bay
Chapel Down
Shipman Head & Shipman Down
Castle Down
Pool of Bryher & Popplestone Bank
Merrick
Great Pool
Rushy Bay & Heathy Hill
Pentle Bay
Eastern Isles
Norrard Rocks
Samson
Higher Moors & Porth Hellick Pool
Lower Moors
Peninnis Head
Annet
Big Pool & Browarth Point
Gugh
Wingletang Down
Western Rocks
Based on the Ordnance Survey 1:50,000 map with permission of Her Majesty's Stationary Office. Crown Copyright. Licence No. AL852368
Isles of Scilly
Fig 3.1: SITES OF SPECIAL SCIENTIFIC INTEREST
KEY
Sites of Special Scientific Interest
0
1
2
3km

OFF ST. MARTINS		
White Island	16.55	Particularly important for the suite of Late Pleistocene deposits in Chad girt. Maritime heathland, maritime grassland and scrub habitats also occur here whilst the isolated cliffs support small colonies of breeding seabirds.
OFF TRESCO AND ST. HELENS		
Pentle Bay, Merrick and Round Islands	42.79	The islands are important for breeding seabirds. Pentle Bay is low-lying and experiences severe maritime exposure to salt-laden winds. Shoreline vegetation is restricted but consists of some nationally rare species, including bryophytes and lichens amongst the heathland.
ST. MARYS		
Peninnis Head	16.1	Noteworthy for the prominent granite cliffs and tors. Also supports maritime heathland, maritime grassland and scrub habitats, together with populations of a number of rare plants and lichen species.
Lower Moors	10.2	A topogenous mire, exhibiting a range of wetland habitats, developed on alluvium and peat overlying the Hercynian granite bedrock.
Higher Moors and Porth Hellick Pool	16.2	This is the largest area of open water on the island, associated with topogenous mire habitats developed on peat and alluvium. The site exhibits a wide diversity of habitats with several rare and notable plant species. The pond and fringing habitats are also of particular importance for breeding and migrant birds.
TRESCO		
Castle Down	58.1	Extreme maritime exposure and thin podzolic soils have resulted in the development of 'waved' maritime heathland with a particularly important lichen flora.
Great Pool	17.0	The largest area of freshwater on Scilly. Alluvium, silt and peat mantle the underlying Hercynian granite, producing a shallow mesotrophic lake with developing marginal vegetation.
ST. AGNES		
Big Pool and Browarth Point	10.1	Big Pool and the adjacent Little Pool form the only areas of open water on this island. The adjacent wet grassland contains a number of rare and notable species. Prominent raised beach deposits are exposed at the eastern edge of the site.
Wingletang Down	28.9	Maritime heathland covers much of the site and supports populations of a number of rare plant species.
OFF ST. AGNES		
Gugh	37.7	Shallow podzolic soils with waved heathland vegetation, including rare lichen species.
SAMSON (WITH GREEN, WHITE, PUFFIN AND STONY ISLANDS)		
Samson (with Green, White, Puffin and Stony islands)	38.7	Samson is the largest uninhabited island in Scilly. It has heathland and a dune system. A good population of the nationally rare Balm-leaved figwort is found here; also Blunt-fruited starwort and Greater Skullcap. Samson and the surrounding islands are particularly noted for their seabird colonies.


NORTH
Round Island
Men-a-Vaur
St. Helens
White Island
Tean
St. Martin's
Bryher
Tresco
Eastern Isles
Norrard Rocks
Crow Bar
Samson
North Channel
St. Mary's Road
St. Mary's
Crow Sound
Zantmans Rock
Gunners
Annet
Crim Rocks
St. Agnes
Gugh
Broad Sound
Bishop Rock
Western Rocks
Isles of Scilly
Fig 3.2: MARINE PARK
KEY
Boundary of Marine Park
(follows 50 metre contour)
0
1
2
3km
Based on the Ordnance Survey 1:50,000 map with permission of Her Majesty's Stationary Office. Crown Copyright. Licence No. AL852368

ANNET		
Annet	119.5	The largest uninhabited island on the western side of the archipelago. The northern end represents one of the best-developed areas of thrift turf in the British Isles. Rare species are present, including the Shore Dock and some lichen species. The island is of outstanding importance as a seabird colony, supporting some twelve species of breeding seabirds.
EASTERN ISLES (INCLUDING GREAT AND LITTLE GANILLY AND GREAT AND LITTLE ARTHUR)		
Eastern Isles (including Great and Little Ganilly and Great and Little Arthur)	83.8	Their low altitude, maritime exposure and thin, podzolic soils have resulted in a depleted flora. Interesting species do occur, including the nationally rare Orange Bird's Foot, Balm-leaved Figwort and Shore Dock. Other uncommon plants include White Ramping Fumitory and Sea Radish. The island supports eight species of breeding seabird.
TEAN		
Tean	121.3	Rare plants occur on the dune grassland, including the Dwarf Pansy, Four-leaved Allseed and several populations of the Balm-leaved Figwort. The area also supports five species of breeding seabirds.
ST. HELENS (WITH NORTHWETHEL AND MEN-A-VAUR)		
St. Helens (with Northwethel and Men-a-vaur	26.6	Contains a significant population of the nationally rare Balm-leaved Figwort and Shore Dock. The notable Tree Mallow and Small Reed also occur here. Men-a-vaur is one of the most important seabird breeding colonies in the archipelago and the notable rove beetle has been recorded here.
WESTERN EDGE		
Western Rocks	62.7	Important seabird colony and seal breeding area.

3.2 The sea and seabed lying within the 50 metre depth contour surrounding the Isles of Scilly, has been defined as a 'Marine Park', having the status of a Voluntary Marine Nature Reserve (Figure 3.2). The sea supports a wealth of marine life, both native species and warm water 'vagrants', the outermost rocks support an important colony of Grey Seals. There is also a considerable heritage of archaeological and shipwreck remains. The Marine Park is administered by a Management Committee established by the Duchy of Cornwall, the Isles of Scilly Environmental Trust, The Sea Fisheries Committee of the Council of the Isles of Scilly, and English Nature. Its aims are 'to conserve and protect the ecological, archaeological, historical and environmental heritage contained within the park's boundaries, and ensure its harmonious co-existence with traditional local activities, to the mutual benefit of the marine environment, the local community and visitors to the Islands'. It also aims to control and co-ordinate opportunities and facilities for research. The following Special Areas within the Park have been identified to include examples of the features which make the islands unique in Britain:

The Samson, Tresco and St. Martin's Flats
The East Coast of St. Mary's
St. Agnes and Annet
The Western Rocks

3.3 Although the marine environment has yet to be given a statutory designation, English Nature is pursuing a strategy towards marine conservation, and the Isles of Scilly are included in 'Campaign for a Living Coast - Managing England's Marine Wildlife' (English Nature) as one of 27 'sensitive marine areas'.

3.4 At the level of European designations parts of the Isles of Scilly have been proposed as a Special Protection Area for shore birds, and are also a candidate as a Special Area of Conservation.

NATURE CONSERVATION INTEREST

3.5 A summary of the Islands natural wealth with particular attention to the key features of the enclosed farmland is given here.

FLORA

3.6 Compared to the flora of mainland Britain, there are very few truly native plants on Scilly. There are, however, a number of rare and interesting plants - both indigenous species and naturalised exotic species.

3.7 Of the native species, the early adder's tongue fern (*Ophioglossum lusitanicum*) and dwarf pansy (*Viola kitaibeliana*), and the jointed birdsfoot (*Ornithopus pinnatus*) occur nowhere else in Britain. Other plants which are very rare in mainland Britain, but are quite common on Scilly include early meadow grass (*Poa infirma*), adders tongue (*O. azoricum*), Cornish mallow (*Lavatera cretica*), western clover (*Trifolium occidentale*), western fumitory (*Fumaria occidentale*) and Cornish moneywort (*Sibthorpia europeae*).

3.8 Many exotic species of plants have become established in Scilly, especially succulents and escapes from cultivation which are able to survive the mild climate. The escapes also include many varieties of Narcissus, some of which are no longer grown commercially and only survive along field margins and hedgerows, constituting a unique genetic resource as well as representing an important phase in the history of farming on Scilly.

3.9 Within the enclosed farmland, the bulb and flower industry has been a major factor in the success of arable weed species. The light soils and traditional cultivation methods, as well as the shelter provided by the hedges, have enabled many plants, especially those of Mediterranean type, to flourish. Often quite large populations of Red Data Book, Nationally Scarce and Rare species survive in the arable fields on Scilly. These include, among others, Babington's leek (*Allium ampeloprasum v. babingtonii*), compact brome (*Anisantha madritensis*), musk storksbill (*Erodium moschatum*), western fumitory (*Fumaria occidentalis*), purple fumitary (*Fumaria purpurea*), Cornish mallow (*Lavetera arborea*), toothed medick (*Medicago polymorpha*), Shepherd's needle (*Scandix pecten-veneris*), small-flowered buttercup (*Ranunculus parviflorus*), balm-leaved figwort (*Scrophularia scorodonia*), small-flowered catchfly (*Silene gallica*).

3.10 The stone walls also provide important refuges for plants. Species include heathland plants and arable weeds as well as plants more typical of walls such as ferns, which include the rarer *Aspleniums* such as lanceolate spleenwort and black spleenwort, sea

spleenwort and maidenhair spleenwort. The walls also frequently support a variety of succulents of South African and Canary Island origin and long term accidental introduction such as the larger quaking grass (*Briza maxima*) as well as garden escapes. Some of the wall tops, particularly those around the Garrison and others with a very thin layer of soil on top, are noted refuges of a sparse grassland community with grasses such as the hair grasses (*Aira caryophyllea & praecox*), many unusual clovers, and even the tiny orchid -autumn lady's tresses (*Spiranthes spiralis*).

BIRDS

3.11 Scilly conforms to accepted island principles of reduced numbers of resident terrestrial species, for example there are no breeding owls, woodpeckers or buntings. However, the islands are rich in seabirds and at least 15 species breed - more than at any other site in England or Wales - and possess a diversity matched only at colonies in the extreme north of Britain.

3.12 The Islands are an important staging point for large numbers of migrant passerines, many of which originate from or are destined for, areas outside Britain. In winter the Islands can hold internationally important numbers of some wader species, for example, Turnstone. Wetland habitats found in and around Higher and Lower Moors on St. Mary's provide important feeding and resting sites for passage and wintering passerines, waders and ducks, while Porth Hellick Pool is nationally famous for rare vagrants. Freshwater areas at Great Pool, Tresco and Big Pool, St. Agnes are also important for breeding and passage birds plus wintering wildfowl.

3.13 Although fewer passerine species breed on farmland in Scilly, some occur at exceptional densities, perhaps higher than on any similar habitat elsewhere in Britain. Wrens, for example, occur at a density of 4 pairs per hectare. On mainland Britain there is serious concern for Song Thrushes, which have declined by over 70% in the past 25 years and the species is currently under consideration for Red Data listing. A recent study on St. Mary's revealed a Song Thrush density of 2.5 pairs per hectare, some 15 times greater than anywhere else in Britain. The reasons for this abundance undoubtedly include natural factors such as a near total lack of frosts, but perhaps mainly reflect the particular type of land management required by winter bulb flower production, with the industry's marked dependence on retention of hedgerows and small fields, plus limited pesticide use and disturbance at a time when birds are breeding. One consequence of this is a ready made 'control' population against which to both draw comparisons and seek answers to biological changes affecting species elsewhere.

3.14 Seven of Scilly's breeding seabird species are Red Data listed and one (Roseate Tern) is internationally recognised as threatened. Productivity of some species, particularly terns and especially Roseate Tern, will hopefully benefit from a programme of management, particularly habitat management including rodent control and nest site protection. Particular problems are associated with monitoring numbers and distribution of some species, especially Storm Petrel and Manx Shearwater, both of which nest below ground and only visit the colonies at night. Both however are afforded special status under EU Directives.

3.15 Though abundant on the main islands, some passerine species breed on even those that are most remote, e.g. Wrens in Illiswilgig, Rock Pipits on Rosevear and Round Islands, and

Blackbirds and Song Thrushes on Annet. However, most probably withdraw to the larger islands during winter.

3.16 Both avian and mammalian predators are limited on Scilly by comparison with mainland Britain and this may benefit farmland bird communities. Brown Rats *Ratus norvegicus*, however are a severe problem at seabird colonies, but are absent from some islands, for example Annet. They also have some effect on productivity of passerine species. The recent introduction of Hedgehogs *Erinaceus europaeus* to St. Mary's possess a threat to breeding passerines and the few waders using that island, but the animal will prove a far more serious problem should it reach islands with breeding seabirds. As with all island groups, Scilly's wildlife is particularly vulnerable to accidental or ill-considered introductions of non-native animals, and, to a lesser extent, plants.

4.0 THE HISTORIC ENVIRONMENT

SUMMARY OF THE HISTORIC ENVIRONMENT

4.1 The historic environment of Scilly is of international importance. The variety, abundance and preservation of archaeological and historic remains is remarkable. Over four thousand years of continuous occupation are represented, not just as individual monuments, but as coherent groups of contemporary sites. There are also unique concentrations of certain types of monuments, such as Bronze Age entrance graves and post-medieval fortifications. Another unusual aspect is the presence of early remains below high water, resulting from the submergence since prehistoric times of a much larger land mass. In addition to these submerged terrestrial remains, a large number of wrecks have been recorded in the waters around Scilly.

4.2 Many archaeological or historic sites have **statutory protection**. At present there are 120 scheduled monuments in Scilly. Some of these designations refer to individual monuments but others cover large areas of heathland or whole uninhabited islands. The actual number of monuments scheduled is in excess of 500, and this is likely to increase further as a result of English Heritage's *Monuments Protection Programme*, a nation-wide project aimed at correcting scheduling imbalances. Eleven scheduled monuments are Properties in Care, monuments in the guardianship of the Secretary of State for National Heritage and managed by English Heritage. In addition to scheduled monuments there are 122 buildings listed as being of special architectural or historic interest, and two designated wreck sites.

4.3 Although coastal erosion and, to a lesser extent, modern development, tourism and agriculture are continuing threats, most surviving monuments and landscape features are remarkably well preserved. In general this is because they are largely constructed of stone, and those not within farmland lie mostly on areas of rough ground not intensively used since the Bronze Age. These downs and clifftops are generally well served by footpaths and covered by low heather or grass, making them very accessible to the public. Public access within the enclosed land is provided by a network of lanes and trackways and there are numerous high points from which a visual impression of the historic character of the landscape can be gained.

EVOLUTION OF THE LANDSCAPE

4.4 This section summarises what is currently known about the evolution of the historic character of the landscape of the Isles of Scilly and provides a chronological summary of the processes which have created the historic landscape types that can be seen on the Islands today.

The Mesolithic (8000-4000 BC)

4.5 At the end of the last Ice Age, Scilly is thought to have consisted of a single land mass stretching from the Western Rocks to the Eastern Isles and from Peninnis to Shipman Head but, as the ice sheets melted and sea level began to rise low lying areas gradually became submerged. Pollen evidence for the 5th-6th millennia BC indicates that at this time Scilly was at least partly covered in a mixed deciduous woodland (oak, hazel, elm, ash and birch, with lime, holly, alder and willow also present). Evidence of human activity during this period is limited to a dozen or so flint artefacts. However, this dearth of mesolithic evidence is not surprising given that shelters and equipment would have been made largely out of perishable materials, and camps would probably have been concentrated around the, now submerged, contemporary coastline. It is quite likely that, similar to the rest of southern Britain, Scilly was occupied by bands of semi-nomadic peoples who lived by gathering vegetable foods, hunting wild animals and harvesting the resources of the sea. It would certainly have been an attractive environment to live in with its wooded plains and slopes and extensive coastline.

The Neolithic (4000 BC-2500 BC)

4.6 Elsewhere in southern Britain between 4000 and 3500 BC the increased domestication of animals and the deliberate cultivation of food-plants marked the advent of farming. In Scilly, pollen evidence suggests that the forest cover remained largely intact until around 3000 BC when there was partial clearance for cereal cultivation. However, in some places, this was followed by a period of woodland regeneration and apparent agricultural decline. Neolithic artefacts are restricted to a few flint adzes and arrowheads, stone axes and sherds of pottery, and this may indicate that the islands were only occupied on a temporary basis at this stage.

The Bronze Age (2500 BC-700 BC)

4.7 At the beginning of the Bronze Age Scilly was permanently settled from West Cornwall. The pollen record shows a marked decline in woodland species and this, combined with other evidence, indicates that farming had begun on a large scale. By this time sea level rise had led to the formation of a number of separate islands, the largest of which encompassed the modern islands of St Mary's, Bryher, Tresco and St Martin's, while St Agnes, Annet and the Western Rocks constituted three smaller tracts of land. Bronze Age Scillonians practised a mixed subsistence economy. They grew crops (barley, wheat and pulses) and raised stock (cattle, sheep, goats, horses and pigs), and also fished, gathered shellfish and hunted wild animals and birds.

4.8 There are a remarkable number of Bronze Age monuments in Scilly. Many of the hundred and forty stone round houses recorded are probably of this date (though it should be noted that the house type remained virtually unchanged until the early Medieval period and most houses have not been excavated). The majority of these houses stand within or adjacent to the remains of contemporary field systems - small rectilinear or irregular fields defined by boulder walls, stony banks (the result of field clearance) and lynchets (terraces formed by ploughsoil collecting against the downhill side of the field). Most surviving houses and field systems are found on what are now heathlands or intertidal sand flats, but they were originally laid out before soils became podzolised or low lying areas became engulfed by the sea. Surviving Bronze Age

settlement remains are more difficult to detect in those areas which have continued into modern times as farmland. However, some fields forming an ancient pattern are of Bronze Age (or later prehistoric) origin, and prehistoric settlement and field system remains have been identified within some existing fields. Given the extent of relict Bronze Age fields on the upland and coastal edges of the existing farmland, it seems likely that much of the latter was originally enclosed during prehistoric times, even if its earlier pattern has become obscured by subsequent modification.

4.9 On the edges of the field systems, on hilltops, ridges and coastal plateaux, Bronze Age Scillonians built their ceremonial monuments. Most impressive are the entrance graves (circular cairns revetted by a kerb of boulders and containing a stone-built chamber) which functioned as territorial markers as well as places for burial and ancestor worship. The eighty recorded examples represent a unique concentration of this type of monument. Less common, but more enigmatic, are the handful of menhirs (standing stones), and holed stones, and the single example of a stone row, whose date and function are less certain. Visually least impressive but most numerous are the simple cairns - small stone and earth kerbed mounds occasionally containing a cist (a box-like, stone-lined grave) housing a cremation burial. The funerary purpose of most cairns is assumed rather than proven and some at least are the result of field clearance, especially those associated with early field systems. Over four hundred cairns survive, the majority in large groups covering the main heathland tracts.

4.10 Virtually all of the Bronze Age ceremonial monuments are located on heathland, but a handful lie within the intertidal zone, and a few survive as earthworks or place-names or have been discovered by ploughing within land enclosed during the later post-medieval period (that is land which was previously heathland).

The Iron Age (700 BC-AD 43)

4.11 The division between the Bronze and the Iron Ages in British prehistory is now considered largely artificial, and, although iron gradually replaced bronze as the main metal for making tools and weapons, the overall picture in Scilly, as elsewhere, is one of continuity of earlier traditions. Some changes in pottery styles did occur after 500 BC and at roughly the same time Scilly's earliest fortifications were constructed. Cliff castles consisted of stone or earth ramparts built across the neck of a natural promontory to provide protection from landward attack. They were a coastal variation of hill forts, which are thought to have served as economic and social centres under the control of tribal chiefs who presided over and received tribute from surrounding farms. Three Scillonian cliff castles survive on heath-covered headlands on the outer edge of the archipelago - on Shipman Head (Bryher), Peninnis Head (St Mary's) and Burnt Hill (St Martin's). Throughout the Iron Age, people continued to live in round houses and farm small rectilinear or irregular shaped fields. Many existing fields would have continued to be cultivated, but soil degradation had by this time probably led to the abandonment of those located on what is now heathland and from then on these areas were only used for rough grazing. Settlement is likely to have become increasingly concentrated on low lying land, which was itself being gradually reduced by the rising sea level and inundation by blown sand as the coastal dune systems retreated further inland. This would have resulted in more intensive use of the land which remained available for farming. Such intensive use is reflected in the pollen record, which shows that by this time virtually all of

the woodland had been cleared and Scilly had been transformed into an open landscape of cultivated fields, pasture, heathland and dunes.

The Romano-British Period (AD 43-410)

4.12 *Sillina*, as the islands were known to classical writers, occupied a very peripheral position in the Roman empire. There is no evidence of Scilly having been under the direct rule of, or even formally conquered by Rome, and its people were probably left largely to their own devices. A mixed subsistence economy was still practised, with a few new developments - for example, domestic fowl were now also kept, while some wild mammals such as red deer had died out. The use of rotary querns (hand mills), which replaced the earlier saddle and bowl types, made the grinding of corn more efficient. Simple stone houses were still the norm, though an excavated structure at Halangy Down, St Mary's, has much in common with the courtyard houses characteristic of West Cornwall during this period. Another similarity with the Cornish mainland is the change in burial rite from cremation to crouched inhumation in cist-grave cemeteries located close to contemporary settlements. Examples of these graves have been discovered in low lying locations within existing farmland and settlements, on the cliff edge and in the inter tidal zone. They are not detectable above ground and are, therefore, only recorded in advance of their partial, if not total, destruction by ploughing, modern development or coastal erosion. The largest concentration was discovered in Hugh Town during the 1950's and 1960's when council houses were built on the north-west side of Porth Cressa. There appears to have been little direct Roman influence on the everyday tools and equipment used by Scillonians but change did come about as a result of the greater opportunity for contact and trade - pottery, for example, was now imported from Cornwall, Devon, Oxford, Normandy and Brittany.

4.13 Contrasting sharply with the general picture of Scilly as an essentially un-Romanised rural community is the classical altar, now in Tresco Abbey Gardens, and the shrine on Nornour. The altar may have originally stood in a Romano-celtic temple below the Garrison on St Mary's, while the astonishing collection of Roman objects from Nornour suggests this was the site of a shrine to a native marine goddess attracting votive offerings from travellers between Gaul and Britain.

The Early Medieval Period (AD 410-1066)

4.14 The withdrawal of the Roman legions from Britain can have had little impact on the lives of people who had barely been affected by the occupation itself. Where settlements have been excavated there is evidence of the continued occupation of stone houses built during the Romano-British period (or earlier). However, a few of early medieval date have been identified and these are rectangular, allowing for a ridge roof and an interior free of supporting posts. Early medieval occupation is distinguishable by the presence of new types of pottery, both locally made wares and pottery arriving in Scilly as a result of long distance trade to West Britain and Ireland from the Mediterranean and France, the Islands benefiting from being a convenient point for sailors to land for water and provisions. An important result of these external contacts was the introduction of Christianity, as evidenced by the 6th century inscribed stone in Tresco Abbey Gardens and the 8th-10th century chapels and cist cemeteries recorded on most of the present islands. The three surviving chapels (St Helen's, Tean and St Martin's) are located on heathland, as is a probable holy well on St Agnes. Cist graves (narrow, coffin-shaped

graves, orientated east-west and containing an extended skeleton) dating form this period are known to survive below enclosed land, heathland, dune sand and existing settlements.

The Medieval Period (AD 1066-1540)

4.15 Shortly after the Norman Conquest the islands became the property of the Crown of England, and from 1141, part of the Earldom then, after 1337, the Duchy of Cornwall. From the 12th century the administration of Scilly was split; Tavistock Abbey presided over the northern part, and the de Wika family of Week St Mary in North Cornwall and later the Blanchminsters, also of North Cornwall were proprietors of what are now St. Mary's and St Agnes. Tavistock Abbey's interest had dwindled by the Reformation and in 1547 the whole of Scilly was acquired by Thomas Seymour (the Lord Admiral).

4.16 The centre of the ecclesiastical administration was St. Nicholas' Priory, its ruined church being still visible in the gardens on Tresco. The priory was run by a handful of monks and servants who, as well as farming, were involved in long distance trade and may have collected tolls for anchorage in St Helen's Pool which was probably the chief harbour in medieval times. Under Tavistock's influence there was a revival in Christianity in Scilly; existing chapels were improved and new churches built, for example on St Helen's and St Martin's and at Old Town on St. Mary's. While the latter two continued in use, St Nicholas' Priory and St Helen's church became ruined before the Reformation.

4.17 Secular rule was based at Old Town, where in the 13th century a castle was erected above its natural harbour, whose medieval quay still survives. Though Old Town was the main settlement in the Islands, the location of others is revealed by documentary and place-name evidence and medieval pottery scatters. These include Churchtown and Lower Town on St Martin's; Old Grimsby and Borough on Tresco (as well as around the Priory and New Grimsby, which is of later medieval origin); Norrard and Southard on Bryher; Periglis and Middle Town on St Agnes; and Trenoweth, Helvear, Holy Vale, Normandy and probably most of the other existing farms on St Mary's. Medieval strip fields are rare in Scilly - the best being that south of the road at Lower Town, St Martin's which is clearly shown on the 1888 OS map but has since been sub-divided for flower cultivation. The generally more irregular pattern of most anciently enclosed land indicates that there was no large scale laying out of medieval strip fields but instead existing field systems continued to be used and modified. It is tempting on the basis of this and artefactual evidence to push the origin of most modern settlements back into pre-medieval times, perhaps as far back as the Iron Age. The sinuous character of many of the roads and trackways connecting these settlements suggests that they too have an ancient origin, having been laid out during medieval (or earlier) times.

The Post-Medieval Period (AD 1540-1900)

4.18 In 1549, only two years after acquiring Scilly, Lord Admiral Seymour was accused of plotting against the King (Edward VI) and using the Islands as a base for piracy. His execution marked the beginning of the Godolphin connection with Scilly. The heads of this Cornish family were initially appointed as Captains of the Isles but in 1570 Elizabeth I granted Francis Godolphin a thirty-eight year lease in return for an annual rent of £20. After two hundred and eighty-two years of almost continuous rule, the link was severed when Scilly returned to the direct control of the Duchy in 1831. Three years later, Augustus Smith, a member of an old Hertfordshire family, became Lord Proprietor. His descendants still lease Tresco from the Duchy which continues to own most of Scilly.

4.19 Throughout the post-medieval period farming continued to be the mainstay of the economy with the main domesticated animals being cattle, sheep, pigs, horses and chickens. The cattle were initially small, black, hardy beasts, which on some islands were fed on seaweed, but were replaced during the early 19th century by Devon X Shorthorn crosses and Jerseys. A small breed of sheep persisted into the 20th century, these were not dissimilar to other island breeds, such as the Manx Loghtan found on the Isle of Man . Pigs were also plentiful, every householder keeping at least one. Horses, similar to the Exmoor pony and grazed mainly on furse (gorse), were kept as pack-animals for transporting seaweed (for use as manure) and, together with cattle, were used to pull ploughs. However, during the 19th century they were largely replaced by donkeys, which could be obtained cheaply from the Cornish mining districts. For most of the post-medieval period the crops grown were potatoes, barley, wheat, peas and oats including *Avena nuda*, known locally as 'Pillas' (Heath, 1750 or Borlase, 1756). Potatoes were grown in large quantities, with some farmers gathering two crops a year, and the introduction of better and earlier varieties during the 19th century led to a surplus for export. Enough barley was grown to supply all the islands with beer, bread for the poorer families and feed for cattle and pigs. Only a little wheat was produced locally, sacks of flour being imported from the mainland, but sufficient quantities of peas, oats and pillis were grown to serve the local need.

4.20 The three historical events which are likely to have had the most impact on the pattern of the farming landscape during the post-medieval period are the leasing of the Islands by Francis Godolphin in 1570 and by Augustus Smith in 1834, and the start of the Scillonian flower industry during the late 19th century. Godolphin is known to have encouraged Cornish people to settle in Scilly, particularly on St Martin's, and this may have involved the laying out of new field systems or reorganisation of existing ones but it is not clear yet whether this influence can be detected in the present field pattern. It is possible that the new immigrants merely brought previously abandoned fields back into use.

4.21 Augustus Smith was an economic reformer who began his term as landlord by reallocating farmholdings, which had become minute and scattered by sub division, and introduced a primogeniture system of inheritance by which land passed only to the eldest son, all other offspring being forced to find alternative employment. This reallocation need not have led to alteration of the existing field pattern. However, given that the aim was to maximise on agricultural yields, it is likely that the straight sided enclosures shown on the 1888 OS map represent new enclosure of areas of heathland and the remodelling of anciently enclosed land during the second half of the 19th century. The large

enclosure on South Hill, Samson, is definitely of this date, being a short-lived deer park created by Smith.

4.22 Scilly's flower industry is said to have started in a small way in about 1867 (or 1879 according to other sources) when William Trevellick of Rocky Hill Farm on St Mary's sent an experimental consignment of cut flowers to Covent Garden in a hat box. Its long term success was due to two factors - the establishment of a through railway service from London to Penzance and steamer service to Scilly, which made transportation to market viable, and investment in the industry by Smith's nephew, Thomas Algernon Dorrien-Smith, who studied the Dutch system, introduced new kinds of daffodils and narcissi to the Islands and encouraged islanders to turn their small holdings into flower farms. The narrow, hedged enclosures created for this flower cultivation form a very distinctive pattern and are the most visually striking aspect of Scilly's presently enclosed farmland.

4.23 Throughout the post-medieval period the heathland which adjoined the enclosed farmland was valuable as rough summer pasture, sub divided by boundary walls on St Mary's but not elsewhere. In addition, the heathland was an important source of fuel - turf, furse (gorse), broom and ferns (bracken). Bracken was also used as bedding for animals - there are several areas (known as *fern splatts*) on St Martin's where farmers had individual or group rights to cut bracken (pers.comm. Keith Low) and such areas presumably also existed on the other islands. Peat was dug from low lying wetlands, such as Higher and Lower Moors on St Mary's and these may also have provided reeds and coppiced willow for thatching, basketwork and fencing. The pattern of anciently enclosed land on St Mary's extends across both Higher and Lower Moors, suggesting that these mires were part of the system of enclosed pasture. Scillonians had been making use of heathland and wetland areas in this way since prehistoric times and continued to do so into the 20th century and, in the case of rough grazing on heathland, until very recent times.

4.24 The buildings which currently populate Scilly's farmland, though often on the site of medieval or earlier ones, are post-medieval (or modern) in date. The vast majority are 19th century and include - farmhouses, barns and cowhouses, glasshouses and flower packing sheds. Constructed with granite walls and slate or pantile roofs. These traditional farm buildings occur as isolated structures or in small groups clustered around farmyards or in the corner of fields. They are generally of a scale that reflects the diminutive and intimate nature of the Scillonian landscape.

4.25 In the Scillonian landscape as a whole the most dominant features are post-medieval monuments and buildings. The outstanding range of military structures both on The Garrison and elsewhere along the coast, reflects the fact that from the mid-16th century English foreign policy began to exert much greater influence on Scilly and resulted in it being successively fortified over the next four hundred years. Within the built environment on St. Mary's and the main settlements on the off islands most of the domestic, administrative and religious buildings are of later post-medieval (19th century) date. Remains also survive of industries carried out from the 17th century onwards (corn mills, a fish salting trough, kelp pits, tin mining pits and openworks, pilot gig sheds, stone quarries and splitting pits) and buildings and structures associated with maritime safety, regulation and communication (lookouts, lighthouses and daymarks, coastguard and lifeboat stations, custom houses, quays and slipways and an isolation hospital). These

monuments are largely located on heathland, but some stand within existing settlements, on the side of roads and trackways, or on the rocky foreshore.

4.26 The only example of a designed historic landscape on the islands are the sub-tropical gardens on Tresco begun by Augustus Smith in the mid nineteenth century and since this time maintained and developed by members of the Dorrien-Smith family. Originally, carved out of heathland the formal gardens cover a total area of 7 ha within woodland covering a further 19 ha. Tresco Abbey Gardens are considered to be unique in the British Isles for their combination of a warm climatic situation, profusion of sub-tropical plants, and spacious formal framework. They are listed as Grade I on the English Heritage Register of Historic Parks and Gardens.

4.27 From the Iron Age to the mid-19th century Scilly remained a virtually treeless environment (with the exception perhaps of a few orchards and elm groves). However, in the last one hundred and fifty years pines and elms have been planted as windbreaks within and along the edges of the enclosed farmland (particularly on St Mary's and Tresco). Rhododendron, eucalyptus, sycamore and evergreen oak have also been planted on Tresco, mainly on former heathland as shelter and cover for game birds. Together with the hedges planted along the side of bulb fields (tamarisk, pittosporum, escallonia, euonymous and other introduced species) which have in places been allowed to grow to treelike proportions, this 19th and 20th century tree planting has led to Scilly having a more wooded appearance today than it has had at any other time during the last three thousand years.

The Modern Period (post-1908)

4.28 Potato and flower cultivation, and to a much lesser extent the rearing of beef and dairy cattle, have continued into modern times, and a few blocks of bulb strips have been created since the turn of the century, a few areas of heathland have been taken in as improved grazing and some previously enclosed land has been remodelled. However, farming now accounts for less than 15% of the Scillonian economy and the number of fields which are becoming inundated by invasive vegetation (bracken, brambles and gorse) is gradually increasing. As well as providing a means of transporting flowers to market, the improved rail and sea transport of the mid-19th century marked the beginning of Scilly's tourist industry and this now forms the largest part (85%) of its economy.

Conclusion

4.29 From the chronological description above and the historic landscape types described below it will be clear that archaeological and historic monuments rarely survive in total isolation and are instead often found in association with others of similar type (for example, in the case of groups of Bronze Age cairns or entrance graves) or date (for example, where prehistoric field systems are found in association with Bronze Age burial monuments). This is particularly true of areas of marginal land, such as heathland. Within the enclosed land the degree of survival is much less and, where features do survive, they are much more likely to be detached from their original landscape context (for example, where a Bronze Age standing stone survives within a post-medieval enclosure). However, the present pattern of settlement, fields and lanes within the enclosed land reflects its use and modification over the last 4000 years. The value of the following

historic landscape assessment is that it allows the historic landscape of Scilly to be viewed and understood as a whole as compared to the more narrow concept of monuments as isolated historic features unrelated to their surroundings.

INTRODUCTION TO THE HISTORIC LANDSCAPE TYPES

4.30 Examination of the present landscape of Scilly has led to the identification of 21 historic landscape types which represent the cumulative effect of the natural and historic processes described above. These types are listed below and shown in Figures 4.1 - 4.4. The sources of information used to identify the historic landscape types are listed in the method statement in Appendix A. These detailed historic landscape types inform the landscape assessment and contribute to the categorisation of broad landscape types described in Part 2 of this report.

Rough ground	-	heathland
	-	valley bog/marsh
	-	blown sand/dunes
Woodland	-	broadleaf
	-	conifers
Farmland	-	anciently enclosed land (AEL)
	-	late post-medieval enclosures (LPE)
	-	bulb strips, late 19th/20th century
	-	modern enclosures (post 1908),
Communication	-	inter- and intra-island and long distance infrastructure
Military	-	prominent disused and reused structures
Industrial	-	disused
	-	existing
Maritime safety	-	existing and disused installations
Water	-	natural and artificial pools
Settlements	-	towns, villages and farms
Ornamental	-	Tresco Abbey and gardens
Recreation	-	facilities that have altered the landscape
Foreshore	-	rocky foreshore and offshore rocks
	-	sandy foreshore (beach and intertidal flats)
Marine	-	between the islands

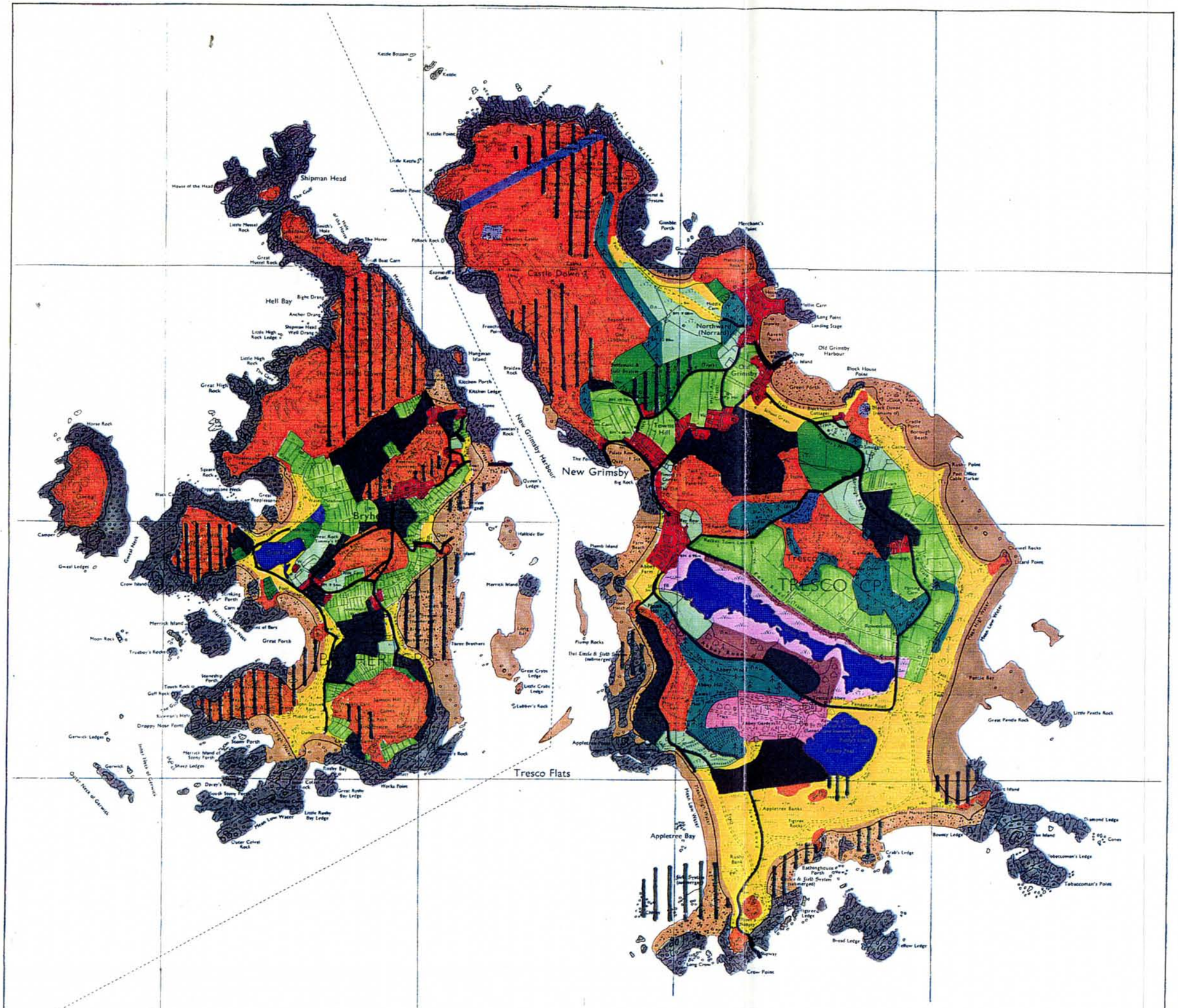


Fig. 4.1
Bryher and Tresco:
HISTORIC LANDSCAPE TYPES

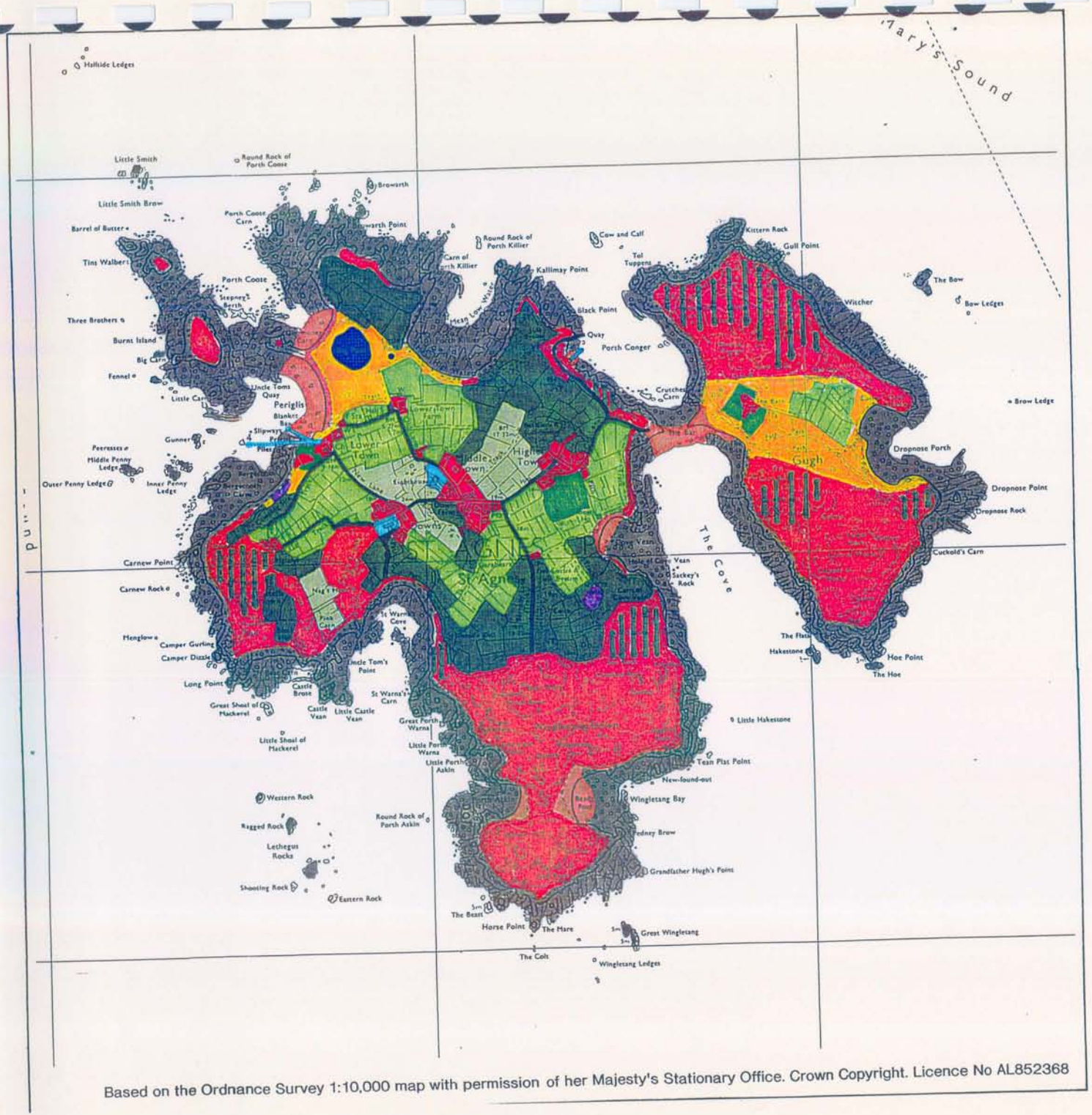
(Cornwall Archaeological Unit, Cornwall County Council)

Rough ground:	Heathland
	Valley bog/marsh
	Blown sand/dunes
Woodland:	Broadleaf
	Conifers
Farmland:	Anciently enclosed land (prehistoric to early post-medieval)
	Late post-medieval enclosures (probably 19th century)
	Bulb strips, late 19th/20th century
	Modern enclosures (post 1908), excluding bulb strips
Communication:	
Military:	Prominent disused and reused structures
Industrial:	Disused
	Existing
Maritime safety:	Existing and disused installations
Water:	Natural and artificial pools
Settlements:	
Ornamental:	
Recreation:	
Foreshore:	Rocky foreshore and offshore rocks
	Sandy foreshore (beach and intertidal flats)
Maritime:	Between the islands

Note:
Areas of relict field systems within other historic landscape types are striped in the colour appropriate to the age of the relict system.

0 500m 1km

NORTH



Based on the Ordnance Survey 1:10,000 map with permission of her Majesty's Stationary Office. Crown Copyright. Licence No AL852368

Fig. 4.2
St Agnes:
HISTORIC LANDSCAPE TYPES

(Cornwall Archaeological Unit, Cornwall County Council.)

Rough ground:
- Heathland
- Valley bog/marsh
- Blown sand/dunes

Woodland:
- Broadleaf
- Conifers

Farmland:
- Anciently enclosed land (prehistoric to early post-medieval)
- Late post-medieval enclosures (probably 19th century)
- Bulb strips, late 19th/20th century
- Modern enclosures (post 1908), excluding bulb strips

Communication:

Military:
- Prominent disused and reused structures

Industrial:
- Disused
- Existing

Maritime safety:
- Existing and disused installations

Water:
- Natural and artificial pools

Settlements:

Ornamental:

Recreation:

Foreshore:
- Rocky foreshore and offshore rocks
- Sandy foreshore (beach and intertidal flats)

Maritime:
- Between the islands

Note:
Areas of relict field systems within other historic landscape types are striped in the colour appropriate to the age of the relict system.

0 500m 1km

NORTH

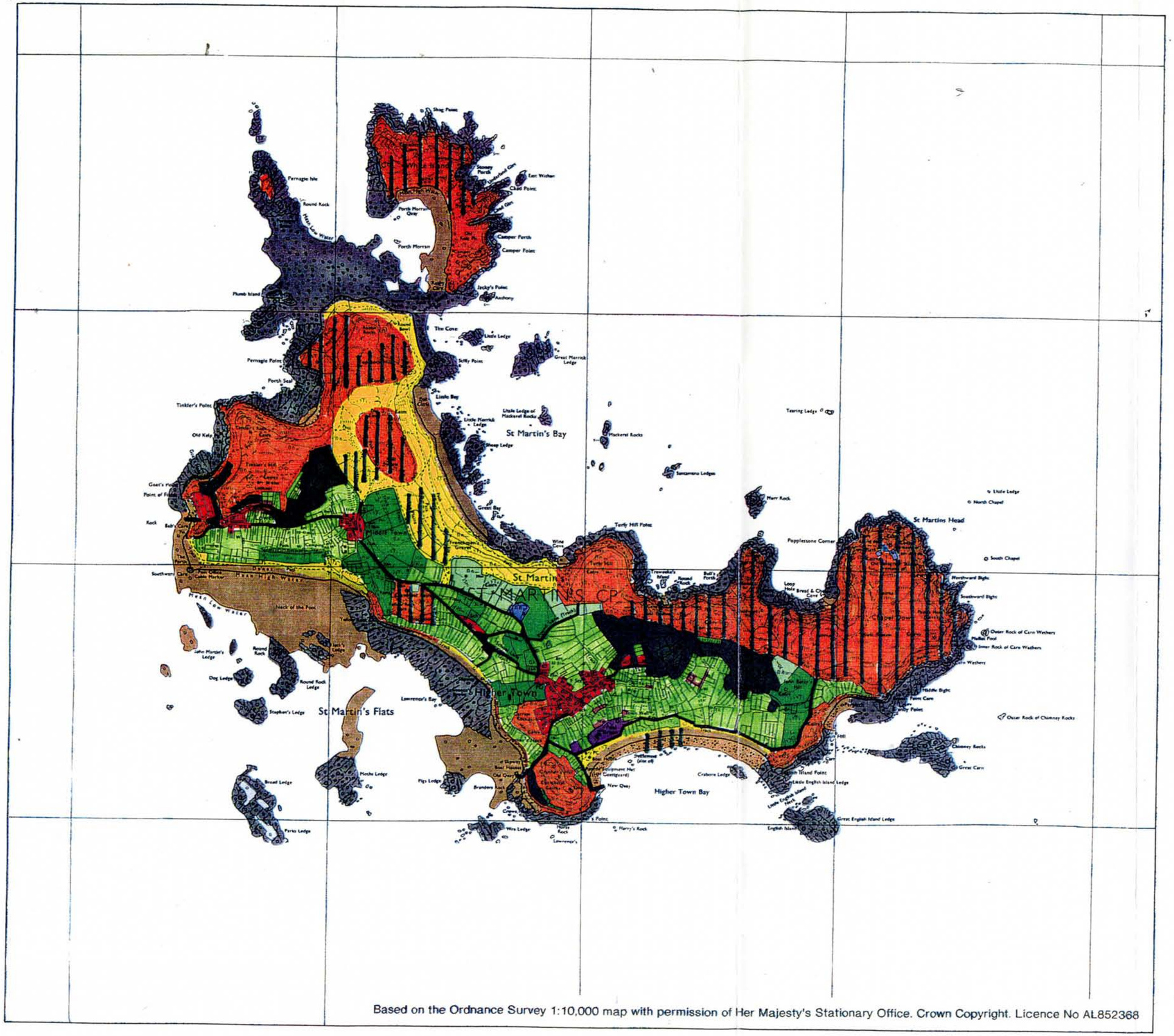


Fig. 4.3
St Martin's:
HISTORIC LANDSCAPE TYPES

(Cornwall Archaeological Unit, Cornwall County Council.)

Rough ground:
- Heathland
- Valley bog/marsh
- Blown sand/dunes

Woodland:
- Broadleaf
- Conifers

Farmland:
- Anciently enclosed land (prehistoric to early post-medieval)
- Late post-medieval enclosures (probably 19th century)
- Bulb strips, late 19th/20th century
- Modern enclosures (post 1908), excluding bulb strips

Communication:

Military:
- Prominent disused and reused structures

Industrial:
- Disused
- Existing

Maritime safety:
- Existing and disused installations

Water:
- Natural and artificial pools

Settlements:

Ornamental:

Recreation:

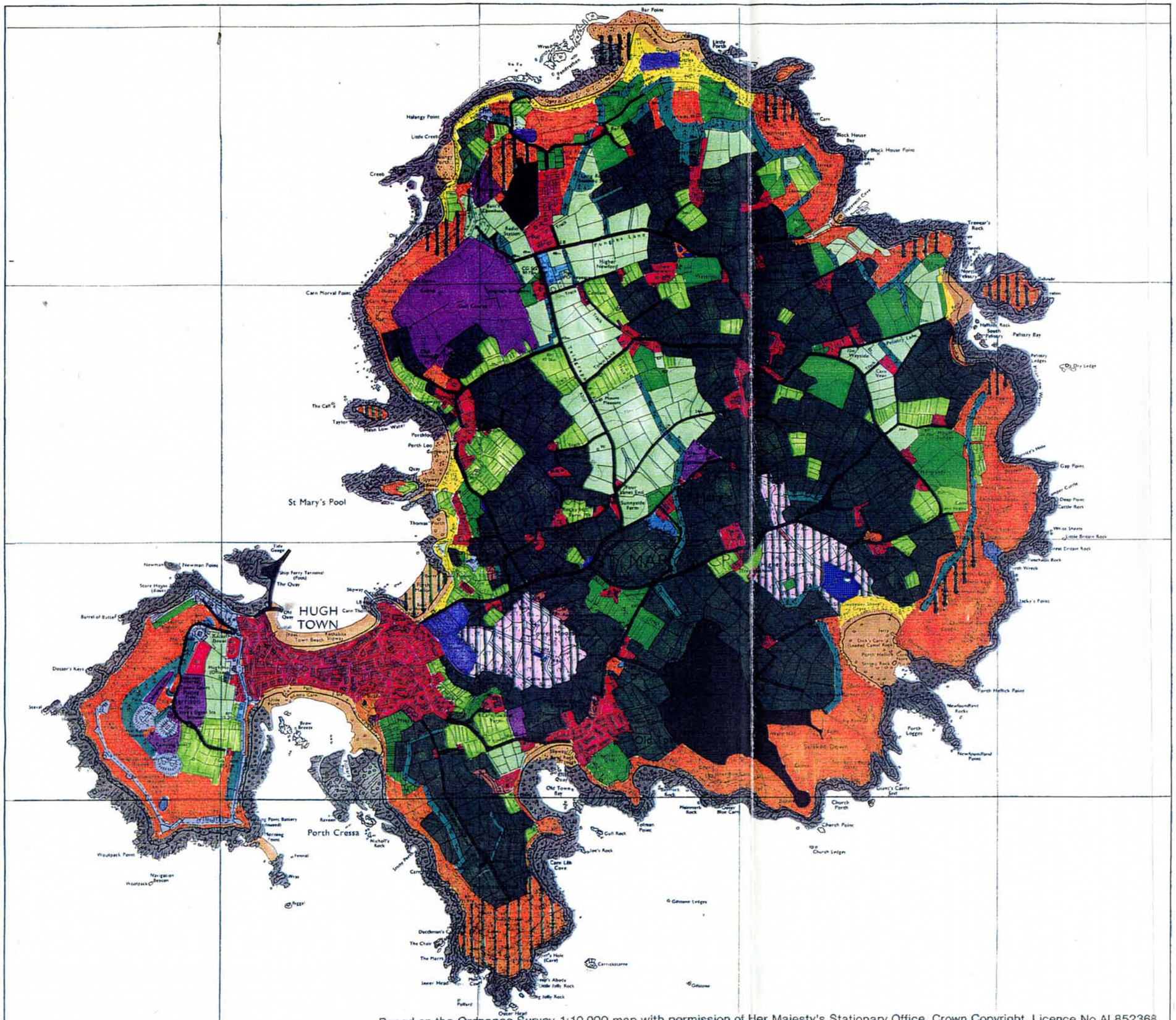
Foreshore:
- Rocky foreshore and offshore rocks
- Sandy foreshore (beach and intertidal flats)

Maritime:
- Between the islands

Note:
Areas of relict field systems within other historic landscape types are striped in the colour appropriate to the age of the relict system.

0 500m 1km

NORTH



Based on the Ordnance Survey 1:10,000 map with permission of Her Majesty's Stationary Office. Crown Copyright. Licence No AL852368

Fig. 4.4
St Mary's:
HISTORIC LANDSCAPE TYPES

(Cornwall Archaeological Unit, Cornwall County Council.)

Rough ground:	🟥	Heathland
	🟪	Valley bog/marsh
	🟨	Blown sand/dunes
Woodland:	🟫	Broadleaf
	🟦	Conifers
Farmland:	⬛	Anciently enclosed land (prehistoric to early post-medieval)
	⬜	Late post-medieval enclosures (probably 19th century)
	🟩	Bulb strips, late 19th/20th century
	🟩	Modern enclosures (post 1908), excluding bulb strips
Communication:	⬛	
Military:	🟦	Prominent disused and reused structures
Industrial:	🟦	Disused
	🟦	Existing
Maritime safety:	🟦	Existing and disused installations
Water:	🟦	Natural and artificial pools
Settlements:	🟥	
Ornamental:	🟪	
Recreation:	🟪	
Foreshore:	⬜	Rocky foreshore and offshore rocks
	🟧	Sandy foreshore (beach and intertidal flats)
Maritime:	⬜	Between the islands

Note:
Areas of relict field systems within other historic landscape types are striped in the colour appropriate to the age of the relict system.

0 500m 1km

NORTH

DESCRIPTION OF THE HISTORIC LANDSCAPE TYPES

Rough ground

4.31 Rough ground is a general term used to describe land which is no longer farmed but was once an integral part of the farming system, either as rough grazing or as enclosed grassland or arable fields. Owing to this previous use, areas of rough ground often contain relict prehistoric (and later) field systems and, on St. Mary's include linear boundaries dividing up the rough ground into blocks of land for common grazing or turbary (peat cutting). A wide range of other archaeological remains are also found on rough ground - prehistoric houses and ritual and burial monuments, early Christian chapels, churches and cemeteries, and a host of post-medieval remains (fortifications, lookouts, signal stations, lighthouses and daymarks, gigsheds, kelp pits, mills, stone quarries and splitting pits, an isolation hospital and a line of tin workings). Indeed, most of Scilly's above ground archaeological remains are located on rough ground, and as the latter has not been intensively used since prehistoric times, these monuments are, in general, very well preserved.

4.32 *Heathland:* This is rough ground where coastal heath has formed on peaty acid soils. In prehistoric times, before they became degraded, these soils were cultivated and most of the relict prehistoric settlements and field systems that survive on rough ground are found on the heathland (together with virtually all the types of monument already listed for rough ground). Heathland is largely covered by low heather or grass and well served by footpaths. However, there are areas where dense bracken, brambles or gorse obscures archaeological remains and makes access to them difficult, if not impossible.

4.33 *Valley bog/marsh:* Typified by the two inland mires on St Mary's (Higher and Lower Moors), the importance of this historic landscape type is threefold. First, below ground peat deposits contain valuable information (in the form of pollen, plant macrofossils, diatoms and foraminifera) on the vegetational history and changing sea level of Scilly. Secondly, though now largely nature reserves, these wetlands were previously grazed and relict early enclosures survive as surface features. Thirdly, documentary evidence exists for the mires having been important sources of peat for use as fuel and remnants of peat cuts and baulks can still be clearly seen at both Higher and Lower Moors (Scaife 1983).

4.34 *Blown sand/dunes:* This refers to areas of high ground which have been covered by blown sand (for example above Middle Town on St Martin's) and more low-lying coastal dune systems. Covered primarily in marram grass, this blown sand tends to cloak prehistoric monuments and landscapes, but these can be re-exposed by coastal erosion or sand extraction. A range of later remains survive on the dune surface - for example, relict post-medieval field systems and Civil War batteries.

Woodland

4.35 *Broad leaf:* None of the present broad leaf woodland in Scilly appears to be ancient in origin and this landscape type instead refers to elm trees (and on Tresco some evergreen oaks) planted during the last one hundred and fifty years or so, mainly as windbreaks, but also for ornamental or recreational reasons. Only distinct areas of woodland are

shown on the historic landscape maps and this does not include single lines of trees planted along the sides of tracks and fields (particularly on St Mary's).

4.36 *Conifers:* Augustus Smith was responsible for the original planting of Monterey Pine and Monterey Cypress shelterbelts on Tresco and St. Mary's in the mid- nineteenth century. The tradition was continued by his descendants and others. Today these shelterbelts include large mature Monterey Pines and Cypress dating from the early part of the twentieth century, less successful plantings of Lodgepole Pine dating to the 1950's and more recent new planting of Monterey saplings. The shelterbelts occur as windbreaks along the outside and between blocks of farmland on Tresco and St. Mary's.

Farmland

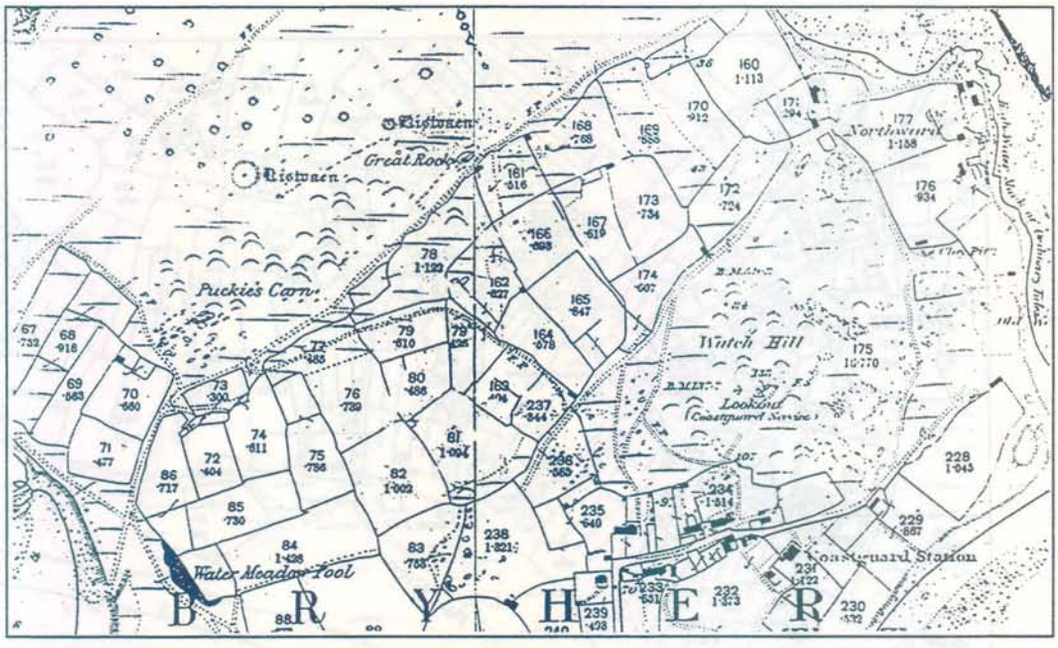
4.37 The four historic landscape types under this heading have been identified primarily on the basis of field pattern - that is the shape and size of the fields - as this has been shown, in Cornwall, to be a good basis for assessing the period during which a piece of land was first enclosed. Early maps, place name evidence and fieldwork have been used to check and refine the results of this initial assessment. Comparison of the 1908 and 1980 OS maps has shown that there has been very little change in the field pattern during this century and that, unlike many parts of mainland Britain, the degree of survival of these field patterns is very high. They are illustrated on O.S. map extracts in Figure 4.5.

4.38 *Anciently enclosed land (AEL):* This is land enclosed prior to the 19th century, which includes field systems which are as early as the Bronze Age in origin or, theoretically, as late as the 18th century. In reality, given the limited amount of land that would have been available for farming, most of the AEL is probably at least medieval in origin. The fields of AEL are distinct from straight-sided square or rectangular 19th century enclosures but it is difficult to provide a general description of their pattern because this varies considerably between different blocks of AEL. Lines of boundaries are often sinuous and the fields they enclose irregular in shape. In a few cases AEL can be identified as the altered remains of a medieval strip field system or a prehistoric rectilinear system with lynchets surviving along existing boundaries and banks and lynchets within the present fields. However, for most AEL it is difficult to be this specific. The above and below ground remains of prehistoric (and later) house structures, and scatters of prehistoric and medieval pottery, flint or other occupation material are found within AEL.

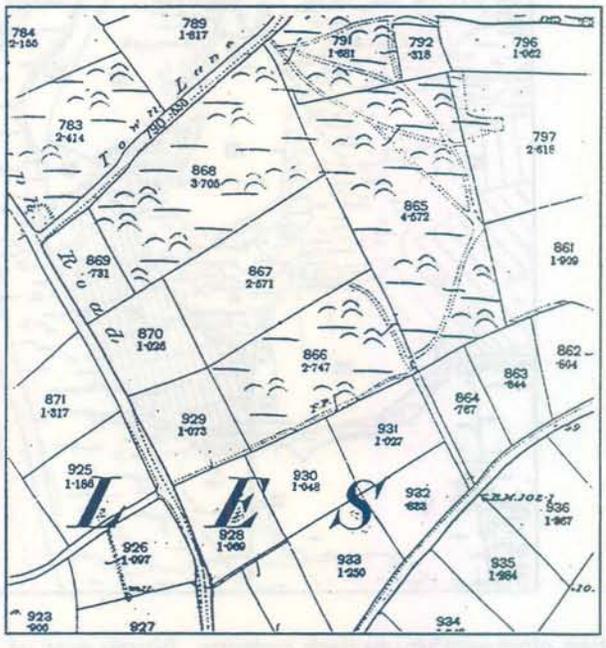
4.39 *Late post-medieval enclosures (LPE):* These are straight-sided enclosures, usually square or rectangular in shape, but occasionally other less regular shapes. They are probably of 19th century date and are the result either of the remodelling of AEL or new enclosure of what was previously heathland (a good example of the latter is the area around and south of Telegraph Hill on St Mary's). LPE may relate specifically to the second half of the 19th century after Augustus Smith took over the lease of the Islands, reallocated farmholdings and provided a boost to the Scillonian economy. Owing to the fact that LPE is often former heathland, prehistoric ritual and burial remains can survive (above or below ground) within this historic landscape type. Below ground early settlement remains could also survive within LPE which is altered AEL.

4.40 *Bulb strips, late 19th/20th:* These are small narrow enclosures designed for the cultivation of flowers (daffodils and narcissi). Comparison of the 1888 and 1908 OS 25"

Fig. 4.5 Farmland, Historic Landscape Types (OS extracts)

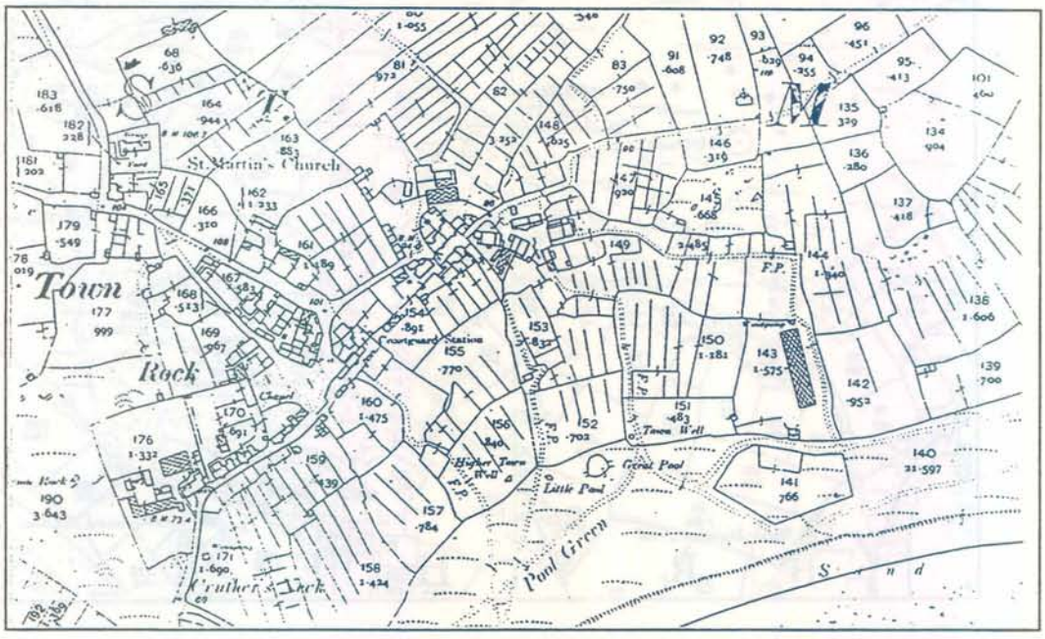


Anciently enclosed land of prehistoric origin extending along the valley between Watch Hill and Shipman Head Down, Bryher. Note numerous post medieval field barns - still in use at the time of this map (1880's) but redundant by the 1908 edition when grazing had been superseded by flower cultivation
Scource : 1888 25" O.S map (not to scale).

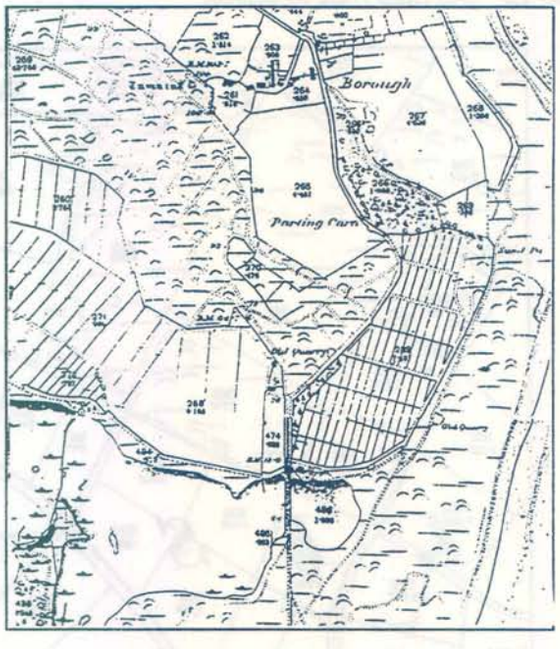


Late post - medieval enclosures on former heathland south of Telegraph Hill, St Mary's
Source : 1888 25" map (not to scale).

Fig. 4.5 continued

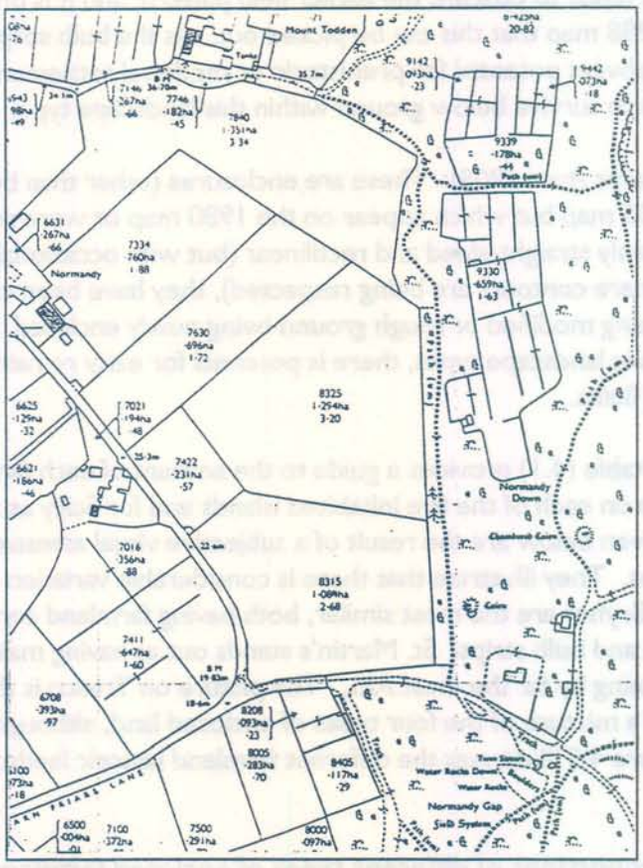


Bulb Strips late nineteenth/ twentieth century, formed largely by subdivision of anciently enclosed land, Higher Town, St Martin's.
Source 1908 25" O.S. map (not to scale).



Bulb Strips late nineteenth/twentieth century. North east of Great Pool, Tresco showing strips enclosed for flower cultivation - the smallest enclosed by wooden fencing, no longer in use - and Middle Down before it became wooded.
Source 1888 25" O.S. map (not to scale).

Fig. 4.5 continued:



Modern enclosures large straight sided fields post 1908 east and southeast of Normandy, St Mary's - this represents complete reorganisation of an anciently enclosed pattern. Also note twentieth century bulb strips enclosing former heathland to the east.
Source : 1981 O.S. 1:25,000 map (not to scale).

maps indicates that most of these strips were created during this 20-year period (with only a relatively few being laid out before 1888 or after 1908). The vast majority of these bulb strips have been created by the subdivision of AEL and, to a lesser extent, LPE, and there are only a few cases of rough ground being newly taken in for this purpose. Despite being mainly subdivided AEL, the distinctive pattern of parallel strips formed by the bulb fields tends to obscure the earlier field pattern, and it is often only by referring back to the 1888 map that this can be picked out. As the bulb strips are mainly modified AEL, there is always potential for prehistoric or medieval settlement remains (structural or artefactual) to survive below ground within this landscape type.

4.41 *Modern Enclosures (post 1908):* These are enclosures (other than bulb strips) not shown on the 1908 OS map but which appear on the 1980 map or were recorded during the fieldwork. Mainly straight-sided and rectilinear (but with occasionally more sinuous boundaries where contours are being respected), they have been created as a result of AEL or LPE being modified or rough ground being newly enclosed. As with the other farmland historic landscape types, there is potential for early remains to survive within these modern fields.

4.42 The following table (4.1) provides a guide to the amount of each farmland historic landscape type on each of the five inhabited islands and for Scilly as a whole. The percentages given below are the result of a subjective visual assessment of the historic landscape maps. They illustrate that there is considerable variation between the islands. St. Agnes and Bryher are the most similar, both having farmland comprised almost equally of AEL and bulb strips. St. Martin's stands out as having mainly bulb strips and St. Mary's as retaining by far the most AEL. The picture on Tresco is different again, with much more of a mixture of the four types of enclosed land, although bulb strips are most common. Figure 4.5 illustrates the different farmland historic landscape types with O.S. map extracts.

Table 4.1: Proportions of different types of enclosed farmland

	AEL	LPE	Bulb strips	Modern
St. Agnes (and Gugh)	40%	15%	40%	5%
Bryher	40%	5%	50%	5%
St. Martin's	15%	5%	60%	20%
St. Mary's	70%	15%	10%	5%
Tresco	20%	20%	40%	20%
Scilly	**37%**	**14%**	**40%**	**9%**

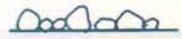
Field Boundaries

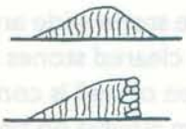
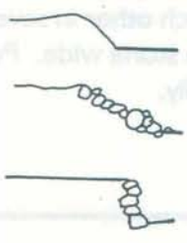
4.43 The boundary types recorded during the landscape assessment (excluding hedges) are illustrated and briefly described in Table 4.2.

Communication

4.44 This landscape type includes roads and major trackways, the main quays on each island, the airport on St Mary's, the helicopter landing area on Tresco, and the various television, radio and radar installations on Telegraph Hill. From an historic point of view, it is the

Table 4.2: Boundary types

Boundary wall  (long profile)	A line of boulders, one stone wide and one stone high, sometimes with small cleared stones banked in between the boulders. This type of wall is common where relict prehistoric field system survive on heathland, but very rare within the enclosed land - only one example was identified during the landscape assessment (at Helvear, St. Mary's).
Drystone wall  (cross section)	An unbonded wall formed by stones being laid horizontally on top of each other in several rough courses, usually only one stone wide. Probably the most common wall type in Scilly.
Stone-faced stone wall  (cross section)	A wall with a built stone face on each side and a rubble core. Can taper towards top or have more vertical sides. Often difficult to tell this wall type apart from the stone-faced earth wall (see below).
Stone-faced earth wall  (cross section)	A wall with a built stone face on each side and an earth core. Usually tapers towards its top. This wall type (and the stone-faced stone wall) is fairly common on St. Mary's (particular more towards the interior of the island) but less so on the off islands and it is virtually absent from St. Martin's.
Stone-faced wall with vertical stones on top  (cross section and  long profile)	This distinctive wall type appears to be an estate style instigated by Augustus Smith and/or his successors. Most of the walls on Tresco have been built or rebuilt in this style and isolated examples occur on St. Mary's and elsewhere. The design appears to be intended to make the wall more stock-proof (one on St. Mary's, for example forms the boundary between the enclosed land and the heathland on Peninnis Head). The core of the wall can be either stone or earth.

Earth bank/stone-faced bank  (cross section)	a bank of earth, sometimes faced on one side. These are not common, and may be the result of earth upcast from later ditches being banked against and over an existing stone boundary.
Lynchet  (cross section)	A lynchet is a scarp or terrace formed by plough soil moving down a slope to collect against the downhill boundary of a field. The appearance of the lynchet can vary depending on what happens to the boundary. For example, if it is subsequently removed the profile of the lynchet may become gentler as it is smoothed out by ploughing and it may even disappear completely. In other cases stone cleared from a field may be thrown onto the lynchet which then takes on a stony appearance. Some lynchets are revetted by stone walling and become fossilised as a vertical break of slope between the fields, while others have later boundaries built on top of them. Lynchets are important because they are good indicators of the age of a field system (prehistoric - early medieval usually in Scilly) and when within existing fields they preserve the lines of boundaries that have otherwise been lost.
Ditch  (cross section)	Ditches, so far recorded, occur alongside stone boundaries are relatively shallow and confined to areas where there is a lot of surface water within fields - indicating that they are designed for drainage rather than stock control.

intra- and inter-island communication infrastructure that is of most interest. The winding nature of many of the roads and tracks, particularly those on St Mary's, is indicative of their medieval (or earlier) origin. Most functioning quays are also historic structures, being at least a hundred years old and possibly up to four hundred years old.

Military

4.45 Only those military structures which are a dominant feature of the present landscape are shown as this historic landscape type. This includes the majority of The Garrison complex and most of the other stone-built post-medieval forts and castles on St Mary's and Tresco, but not the Civil War batteries and breastwork, which as low, heather or grass-covered earthworks tend to blend in with the rough ground on which they are located. For the same reason the single medieval castle and the two Iron Age cliff castles are also excluded. All of the 16th-20th century fortifications that are included are disused, or have been re-used and now have a domestic or recreational function. There are no active military installations on Scilly. In nearly all cases the military structures are located adjacent to the coast, on land that was formerly heathland or blown sand.

Industrial

4.46 *Disused Industrial:* Larger disused quarries and sand pits are included under this heading, together with the ruined 19th century blacksmith's workshop on Rosevear and the 17th century tin prospecting pits on Castle Down, Tresco.

4.47 *Existing Industrial:* This refers to the quarry and industrial estate on St Mary's, the rubbish tips on the various inhabited islands, and sand pits on St Agnes.

Maritime safety

4.48 Both disused structures (such as St Martin's daymark, St Agnes lighthouse and various coastguard and lifeboat stations) and those lighthouses still in use are included here. All are historic features, ranging in age from eighty to three hundred years old.

Water

4.49 This type includes natural or semi-natural pools such as those within the areas of bog and marsh, most of which have been created or at least enlarged by extensive peat cutting in the past. It also refers to smaller artificial ponds, such as the two at Argey Moor on St Mary's, apparently part of a failed attempt to grow and process flax.

Settlements

4.50 All modern-day settlements are included in this historic landscape type, except for odd isolated rural dwellings (which have been included in the various farmland historic landscape types). Most present day farms are on the site of medieval or at least early post-medieval settlements. Old Town is a settlement of 12th century origin and the churchtowns on St Martin's and St Agnes probably also date back to that time. Even post-medieval Hugh Town, has an early, 17th century foundation. The early date of a settlement increases the likelihood of modern development disturbing buried

archaeological remains. In addition to the potential for surviving buried remains, many of the buildings are important historic structures in their own right. The vernacular farm buildings include farmhouses, 19th century (and sometimes earlier) barns, cowhouses, glasshouses and packing sheds and represent specific types of farming activity.

Ornamental

4.51 This historic landscape type is restricted to Tresco Abbey and its garden, the only example of a planned ornamental landscape in Scilly. Created largely out of former heathland by Augustus Smith in the mid-19th century, these sub-tropical gardens are included as a Grade I site on English Heritage's Register of Historic Parks and Gardens. As well as being of historic interest themselves, the gardens contain a range of earlier archaeological features - the 12th century remains of St Nicholas' Priory, a 6th century inscribed stone, a Roman altar, a Bronze Age holed stone, the brazier from St Agnes lighthouse, and various other historic objects. A figurehead museum which is part of the National Maritime Museum, is also located within the Tresco Abbey Garden.

Recreation

4.52 Playing fields, tennis courts, a camp site and a golf course, the Longstone Heritage Centre and Halangy Down ancient village are represented by this historic landscape type. With the exception of the tennis court and cricket pitch on St Martin's, and sporting facilities on St. Agnes, all are on St Mary's. The off-island camp sites have not been included since they have not altered the appearance of the farmland within which they are located. These recreational areas have been created out of farmland (AEL, LPE and bulb strips), heathland and an old quarry.

Foreshore

4.53 *Rocky Foreshore and Offshore Rocks:* This landscape type is relatively barren in terms of historic remains, but does include ruined and still functioning quays and slipways of medieval to 19th century date, and is historically very important as it links the land and the sea, the latter being vital to Scilly's economy since prehistoric times.

4.54 *Sandy Foreshore (beach and intertidal flats):* Archaeological remains within this landscape type are fairly numerous and include relict prehistoric (and later) settlements, field systems, graves and ritual monuments, and submerged peat deposits rich in palaeoenvironmental evidence relevant to the vegetational history of Scilly and the evolution of its coastline.

Marine

4.55 The extent of this landscape type has not been closely defined, but it loosely includes the sea and seabed within the Scilly archipelago (perhaps within the 50 metre marine contour) . Documentary records exist for up to 700 wrecks in the area and submerged terrestrial archaeological remains are also suspected. For these reasons it is valid to include it as part of the historic environment.

5.0 CURRENT AGRICULTURAL MANAGEMENT

RECENT HISTORY OF FARMING IN THE ISLANDS

5.1 Flower production is the type of farming most associated with the Scilly, yet this is a relatively recent activity. For centuries agriculture comprised small scale subsistence farming. Early potato production was encouraged and expanded under the Dorrien-Smiths in the 19th Century, and many shelter belts were planted. By the turn of the 20th Century, the climatic advantage of the islands was eroded by potato production from Southern European and other countries, and the Islands switched to flower cropping.

5.2 Flower production boomed until the onset of World War 2, and the islands became relatively profitable. Enclosure of some parts of the islands was encouraged by the good returns and, as a consequence, some new land was 'broken in' and new walls erected. During the 1939-45 conflict, much of the islands was returned to potato cropping, but bulbs and flower production were later resumed and have remained the most widespread crop since.

THE MAIN FARMING ENTERPRISES IN THE MID 1990's

5.3 The Islands are owned by the Duchy and, with the exception of Tresco, occupied on agricultural tenancies. There were 58 farm holdings in 1993, down from 71 in 1986. These cover a total area of 557 hectares, of which 182 ha were in productive horticultural (including flowers and bulb) use. The average farm size is therefore less than 10 ha. Many of the fields are very small, some less than 0.1 ha.

5.4 Based on published studies of the Islands and from the sample of tenants interviewed, the key agricultural enterprises are:

- flowers;
- bulbs;
- vegetables;
- livestock;
- milk.

5.5 *Flowers:* the flower industry has developed over the last century, and remains the single most important agricultural export. The methodologies have evolved to what is currently a highly skilled and intensive system, involving forced early growth to ensure that flowers are ready for October/November markets, thus achieving price premiums. Crop production can involve:

- soil fumigation by direct injection prior to planting;
- polythene coverage and smoke treatment to induce sprouting;
- intensive and frequent fungicidal treatment to retain green coverage;
- hand selected picking between October and April;
- hand bunching and boxing, followed by cold-storage;

- burning off leaves and blackening soil with propane burners post-harvest.

5.6 The crop relies heavily on the use of shelter hedges to protect the flowers from wind and storm damage. All tenants interviewed recognised the importance of retaining these shelter hedges, many of which were severely damaged by hard frosts on 12 January 1987. While bulbs are planted and lifted mechanically, the crop remains very labour intensive and all flowers have to be hand picked and bunched.

5.7 The flower industry benefits from a degree of market co-operation between tenants. Mainland Marketing was established with fiscal aid from the Duchy Estates, and markets flowers for a significant proportion of tenants. Other farmers send flowers direct to the mainland, mostly through Ferryfast.

5.8 *Bulbs:* as a subsidiary of the flower trade, bulbs are exported world-wide. Bulb-crops are normally selected following the lifting (after 3-4 years production) of the flower crop. The bulbs are selected and replanted, often in a more exposed location, to 'bulk-up' for one season before being relifted, field-dried, graded and bagged. Farmers deal with their own marketing for bulbs, largely through Lingarden Ltd at Holbeach.

5.9 *Vegetables:* the vegetable trade has declined on the islands. Of the 18 tenants interviewed as part of this study, only 2 were actively involved in the production of vegetables, both seeking to satisfy local demand. Crops grown include a wide range of roots and brassicas, with some expansion into crops such as asparagus. Some potato production is also still undertaken on the Islands.

5.10 *Livestock:* the livestock industry on Scilly is small. The NFU (1995) reported 225 cows and calves in 1993, and 9 pigs. Sheep numbers were not quoted, but there are few in the islands other than a flock of Jacobs on Bryher. Most livestock are now kept for home consumption, i.e. to provide for the specific needs of their owners. The island abattoir was closed in the 1970's, and all stock not for private consumption must (under EC regulations) be exported to be killed on the mainland, even if the carcass is then to be reimported. This journey can only occur between Easter and October, when the Scillonian III is running, and is stressful for the livestock and costly for the producer.

5.11 *Milk:* dairy farming has never been a significant part of island agriculture. The dairy in Hugh Town closed in 1991, thereby removing opportunities for milk pasteurisation, and the great majority of the milk now consumed is imported from the mainland. A small amount of milk production remains, selling green-top milk to local consumers. The islands have a total quota allocation of 90,000 litres, sufficient for approximately 22 cows[5].

THE IMPORTANCE OF TOURISM

5.12 Tourism is recognised as being of key importance to the economy of the Isles. Indeed it represents 85% of the economy, with farming and other activities accounting for the other 15%. This extends to support of the farming businesses. Almost all tenants interviewed had the benefit of one or two properties for holiday lets, mostly forming part of the farm business. Many of these were allowed in the 1960's under deliberate Duchy policy to supplement incomes from flower production.

5.13 Tenants with holiday lets (80% of sample) reported that these contributed greatly to farm income, varying from 10%-100% (average 50%). All but one of these holdings was being actively farmed.

5.14 Many interviewed noted that it required less effort to generate an income from tourism than from farming. It was also noted that in many cases, without the income from tourism, the farm would struggle to generate sufficient income for subsistence of the occupant. It is therefore concluded that in many cases, tourism (or other employment) income is necessary for unit survival. Those not reliant upon tourism income are the larger, highly intensive flower farms.

LAND MANAGEMENT CHANGES AS A RESULT OF EVOLVING AGRICULTURAL PRACTICE

5.15 Agricultural practice has shaped much of the landscape of Scilly. As farming practices and fortunes have changed, so too has the landscape. A number of features have been affected over the last two decades, and are considered below:

- the enclosed cultivated land, principally the bulb fields, vegetable fields and fallow land;
- the shelter hedges;
- the shelter belts;
- the enclosed grassland, including non-farmed land;
- grazing on downland.

5.16 *Enclosed cultivated land:* land in active horticultural and agricultural use has declined over the last ten years. Those areas which remain in active use are usually highly intensively managed or are, on occasion, utilised for bulking-up or crop rotation. These areas offer the only realistic opportunity for farmers to generate an income from agricultural/horticultural production. The changes are recorded in Table 5.1 (NFU 1995):

Table 5.1: Arable and Horticultural Changes

Land Type	1986		1993	
	Area (ha)	Holdings	Area (ha)	Holdings
Arable	124	50	114	36
Horticultural	190	65	182	51
TOTAL	**314**		**296**	

5.17 *Shelter hedges:* these are essential to the continued survival of the flower industry and a key component of the Scillonian landscape since the turn of the century. Many are recently planted varieties of *Pittosporum crassifolium* or *Olearia traversii*, southern-hemisphere species which do not survive in cold climates. They are generally planted as a crop, fertilised for the first five years of growth during which the bottoms are sprayed out to stem weed growth which may compete for light and nutrients. The hedges are allowed to grow to about 4 m, and are sided and topped annually, by hand or with tractor-mounted flail cutters.

5.18 Farms contain considerable lengths of shelter hedge. A study by Silvanus in 1988 following the frost damage in early 1987 showed total island lengths, and tenancy variations, as follows (Table 5.2):

Table 5.2: Lengths and Variations In Shelter hedges

Island	Total length in 1988 (m)	Minimum of any holding in 1988 (m)	Maximum of any holding in 1988 (m)	% dead in 1988 on island
St Mary's	23,705	80	3,350	97%
St Agnes	9,224	110	1,922	65%
St Martin's	15,645	90	2,675	61%
Bryher	5,926	0	3,276	52%
TOTAL	**54,500**			

5.19 *Shelter belts:* these comprise woodland strips managed and maintained by the Duchy which are excluded from farm tenancies. Their purpose is to break up windflow across the island. On St. Mary's they are strategically placed for maximum effect, including along the length of Penninis Head, to the east of Rocky Hill from the airport to close to Content, and along Helvear Down. These generally comprise a mixture of coniferous species and are generally in very poor repair and of limited windbreak effect. Coniferous shelter belts are also found on Tresco and to a lesser extent on St. Martin's and St. Agnes.

5.20 *Enclosed grassland:* these areas are relatively extensive. The NFU (1995) estimated the following grassland changes between 1986 and 1993 (Table 5.3).

Table 5.3: Grassland Area Changes

Grassland Type	1986		1993	
	Area (ha)	Holdings	Area (ha)	Holdings
<5 years old	53	23	46	20
>5 years old	127	41	137	35
Rough grazing	80	36	50	26
TOTAL	**260**		**233**	

5.21 From a once strongly pastoral economy, the number of livestock on the islands fell with the introduction of horticulture and has continued to fall steadily over this century. Now there is little incentive for commercial grazing with the closure of the island abattoir and the lack of an island dairy. As indicated by Table 5.3 the area of grazing land, which still comprises nearly half of the enclosed land, is declining with land being abandoned rather than going into other cropping. This is reflected in an overall decrease in farmed area from 609 ha (1986) to 557 ha (1993). A gradual decline in the numbers of grazing stock has led to the encroachment of brambles, bracken and gorse. New grassland areas offer considerable difficulties for commercial grazing. They are generally divided into very small paddocks, often separated by stone walls, and are of insufficient size for sensible paddock rotation. Management by machinery is hampered by the small field size, making cutting time-consuming and difficult.

5.22 *Downland grazing:* until relatively recently, farmers put grazing livestock out onto the downland now managed by the Isles of Scilly Environmental Trust (as tenants of the Duchy). Those interviewed noted the practice was often problematic due to animal escape onto enclosed land, and few tenants regret the decline in this practice. Nevertheless, there are a small number of keen stockmen who would wish to expand their enterprises and utilise such land.

THE FUTURE FOR FARMING ON THE ISLANDS: FARM TYPES

5.23 Flower production is facing considerable financial pressure. Farmers have received similar incomes in actual terms for bunches of flowers for more than a decade, whereas many of the input costs have risen with or above inflation. Clearly this has placed considerable pecuniary pressure on the business involved. Nevertheless, the industry has survived, and remains a major world-wide contender for the production of narcissus species.

5.24 That the industry is facing a difficult future is widely recognised. In 1987, Professors Marsh and Swinbank, concluded that many farmers, especially smaller ones, would have to find alternative sources of income, or perhaps even leave from farming. Farm

amalgamation was seen as an essential element in enabling other farms to survive, by allowing them to achieve economies of scale to compete on a world market.

5.25 From this study, we have concluded that these pressures have continued to squeeze farm income and many farmers are now increasingly reliant upon income from other sources. In some cases this has resulted in them giving up farming altogether, or farming less intensively. Many have not given up their land holdings, however, but have retained unfarmed land. This may be due to the relatively low rental value of farmhouses, and the income generated from tourist lets which form an integral part of the tenancy agreement. There was very little sub-letting of land on the islands.

5.26 Currently farm tenancies fall broadly into four types:

- *Type 1:* highly intensively run productive flower and bulb farms, sometimes with other crops and some areas of rough grazing;

- *Type 2:* less intensively farmed flower farms, where flowers are picked but management and inputs are greatly reduced in comparison to type 1 farms. These farms may have grassland enterprises;

- *Type 3:* farms where flower production is no longer carried out, at least commercially, and which are either managed or grazed, in whole or in part;

- *Type 4:* farms where agricultural use has been abandoned.

5.27 Those of *Type 1* generally anticipate continuing as commercial flower farms, although they note that unless fortunes change this will be an increasingly difficult market in which to stay ahead of the competition. The Research and Development (R and D) station at Trenoweth is seen as key to the success of the industry. Shelter hedges, and (on St Mary's) the Duchy-managed shelter belts, are an essential element in the success of the enterprises. Disease control through intensive chemical use of fungicides and soil sterilants will remain essential, and (in early years at least) hedge bottoms will be kept "clean". There is little potential for increased public access due to the risks of disease spread from field to field. Farmers are, on the whole, against the introduction of sheep to the islands as sheep can cause severe damage to crops if they escape, which they have a tendency to do.

5.28 The currently enclosed intensive flower areas, including cultivated land in fallow or for bulking-up bulbs, have little or no land-use change potential. Maintenance of shelter hedges, many of which are of recent planting, is important.

5.29 Farms of *Type 2* are those where, to remain ahead and competitive in the flower world, there is a need for considerable reinvestment in bulb stocks, equipment (e.g. chiller rooms), machinery etc.. Farmers on these units have generally reached a watershed and have elected not to, or been unable to borrow to, reinvest due to the increasingly high risk of such capital investment. If flower production is to remain on these holdings, assistance by way of hedge grants etc. is needed. However, it is concluded that in general these farms are run by those who have given up or been forced to give up the fight and they will become increasingly part-time. As many of these holdings contain

good quality land, there is potential for amalgamation or subletting to enable other, Type 1, farms to expand.

5.30 These holdings do offer potential for increased grazing activities. Cattle are favoured by most farmers, except on Bryher where there is relatively little flower production and sheep are more acceptable.

5.31 *Type 3 and 4* farms are unlikely to return to flower production unless there is a major change in the fortunes of the industry. Such farms will remain part-time, and may either be sublet or amalgamated or may be induced into land management by schemes such as Countryside Stewardship. Type 4 holdings have generally now attained outside income and do not rely upon agricultural income.

WHERE THE FUTURE LIES

5.32 *Summary of recent trends:* Agricultural practice in the Islands reflects the commercial pressures felt by the industry. The flower industry was established during the late nineteenth century and boomed until the early 1960's since when it has faced difficult times with increasing world-wide competition squeezing margins. Many farms have experienced considerable financial difficulties. To assist farmers, the Duchy permitted or constructed numerous holiday lets on farms in the 1960's and these now contribute a significant part of farm income on many holdings. The areas of land farmed have declined over the last ten years and the number of active holdings has also gone down.

5.33 The main farm enterprises face a challenging time in the future:

- ***Horticulture***: income from the production of flowers is unlikely to undergo a significant improvement in the foreseeable future, and may decline as world-wide competition drives down prices. This leaves the islands in a difficult position. The importance of retaining a research centre to enable continual improvement of stock and farming methodology will be high. Land is already farmed by the foremost flower producers in a highly intensive way, and there may be physical limitations to the extent to which there can be further intensification. The islands are small and opportunities are limited for farmers to expand their enterprises. Future farm amalgamation is likely to be essential for the retention of a smaller number of commercially viable horticultural holdings. Retention of the network of shelter hedges is paramount to the horticultural success of the islands.

  If, as a consequence of some enterprises declining, areas of land are abandoned from farming and are not amalgamated with other enterprises, a reduction in the management and overall cover of hedges may increase wind exposure to other areas to the detriment of the industry more widely across the islands. However, the horticultural industry on the islands should not be written off. The skills and resources of the flower producers makes them highly placed against world-wide competition. Given opportunities to further develop and expand, the industry retains prospects for a long-term future.

- ***Grazing livestock***: in areas where flower production was marginal, was never attempted or has been abandoned and is unlikely to return, land management opportunities are limited. Grazing livestock have not been widely kept since potato production expanded in the 19th Century. There are significant areas of land which were enclosed for flower or potato production which are marginal and better suited to grass but the re-introduction of grazing enterprises on the islands is constrained by a number of factors not least:
  - the lack of slaughtering facilities on the islands;
  - transport to market only being possible between Easter and October;
  - very small field sizes and extensive lengths of easily damaged wall;
  - a critical need to keep livestock separate from areas of flowers and the shelter hedges;
  - the small size of the islands which limits the number of potential farming enterprises and the viability of these;
  - a general mistrust of sheep on the main flower producing islands of St Mary's, St Agnes and, to a lesser extent, St Martin's.

  Nevertheless, it must be recognised that grazing has been a fundamental factor in shaping the landscape of Scilly, being one of the key reasons for the system of enclosures and providing the main management tool for the open downlands. There are therefore good reasons for encouraging grazing although it is unlikely to be widely taken up by tenants unless the required infrastructure is in place (an abattoir) and adequate fencing/stock proofing of boundaries as well as sufficient financial incentives (under Stewardship) to make it a commercial option. The scale of such enterprises means that they are likely to generate only small margins for considerable time input, and the added costs of living in a small island community isolated from the mainland has and will prejudice the economic success of such ventures.

- ***Milk***: there is little potential to increase the size of the dairy cattle enterprise in the islands without considerable expenditure in stock, quota and buildings. Given the highly seasonal demand there is unlikely to be any commercial justification for this.

LANDSCAPE IMPLICATIONS

5.34 The landscape of the Isles of Scilly has been profoundly influenced by the farming activities its inhabitants. Until as recently as the mid 19th Century, the Islands were a mixture of subsistence farming and crofting, with fields enclosed by walls and livestock as an important part of the farm structure. The downland areas were extensively grazed. Further limited enclosure of land was encouraged by the increase in early potato production under the Dorrien-Smiths, and gave way to flowers at the turn of this century. Flower production boomed and with the introduction of shelter hedges the landscape underwent a significant transformation.

5.35 Farming is again undergoing a period change. Farm incomes from flowers have been in decline since the 1960's, and the number of active producers has dwindled. Those who remain are either highly intensive or are in decline. This pressure may lead to the decline

in the management of the shelter hedges, and to abandonment of areas of the typical and characteristic enclosed field patterns. Farmers will need to amalgamate to survive long-term, and there will be a need for grant funding to retain those features and areas of acknowledged importance which can no longer be maintained from farming income alone. This requires consideration of how to maintain all enclosed land which remains as pasture (nearly 50% of all the enclosed land) and other areas of marginal horticultural activity which may return to grassland in the future. Under the current climate there is little incentive for the re-introduction of grazing despite it having been a key factor in shaping the Island's landscape.

PART 2:

THE CHARACTER OF THE LANDSCAPE

6.0 INTRODUCTION TO THE LANDSCAPE ASSESSMENT

6.1 The previous chapters have explored the physical evolution of the Isles of Scilly landscape and the influence of human activity over many centuries. These have combined to create a unique and distinctive landscape. This is reflected in the Islands designation as an Area of Outstanding Natural Beauty (AONB), Heritage Coast and a Conservation Area. This chapter focuses on the variations in landscape character throughout the islands by identifying a series of landscape types. An understanding of the variations in landscape character is essential to enable Countryside Stewardship to be targeted to meet the particular needs of the landscape, and enable its special character to be conserved and enhanced.

6.2 Differences in landscape character reflect both physical and historical influences including geology, landform, aspect, land cover, land use and current management. In this assessment the Isles of Scilly have been divided into 13 broad landscape types, namely:

Headlands	Exposed Headland Heaths Low Lying Southern Headlands Fortified Headlands
Coastal Edge	Sandy Coast with Dune or Grassland Rocky Coast with Heathland Sandy Coastal Strip with Fields
Interior Hills and Valleys	Unenclosed Hills Hills with Woodland Hilltop with Agriculture Valleys with Pools and Marsh
Agricultural Land	Valleys and Hillslopes with Fields Valley and Hillslopes with Bulb Strips Undulating Agricultural Interior

The landscape types are illustrated in Figures 7.1 - 7.4.

6.3 Each of these landscape types has a distinct and relatively homogeneous character although may incorporate several of the historic landscapes types described in Chapter 4.0. In this section (Chapter 7.0) the key characteristics of each landscape type and subtle variations within each are described. The description of each type begins with a boxed summary outlining where the landscape type can be found and the historic landscape types it includes (the predominant historic landscape type(s) are highlighted). The general management issues for each landscape type are outlined and provide the basis for developing the management strategy.

6.4 On each island the different landscape types occur together in different combinations and locations with the result that each island has its own unique character, distinct in feel and tone - which is more than the sum of its component landscape types. This section of the

report, therefore, concludes with an island by island description which brings together the various elements identified for each of the generic landscape types.

6.5 The Countryside Commission is currently carrying out a full landscape assessment of the Isles of Scilly AONB. This report will assess the quality and character of the area, describe perceptions of the landscape by artists and writers over the years and consider present forces for change. This information will be drawn together in an accessible format and published by the Commission in 1996 as part of its popular series of AONB landscape assessments.

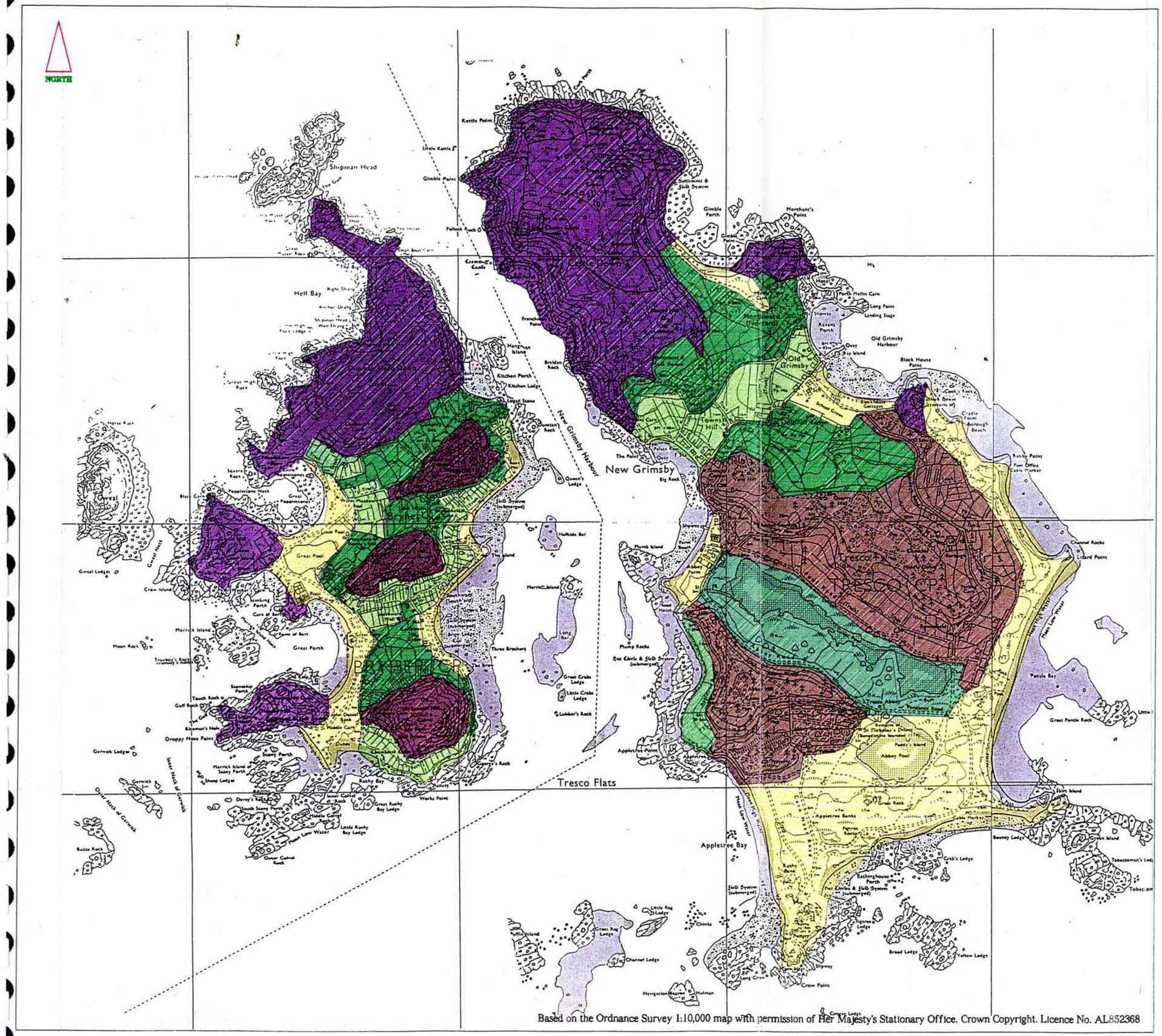


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Fig. 7.1
Bryher & Tresco
LANDSCAPE TYPES

KEY

Headlands:

▨ Exposed headland heaths

Coastal Edge:

▨ Sandy coast with dune and grassland

▨ Rocky coast with heathland

Interior Hills and Valleys:

▨ Unenclosed hills

▨ Hills with woodland

▨ Valleys with pools and marsh

Agricultural Land:

▨ Valley and hillslopes with bulbstrips

▨ Valley and hillslopes with fields

0 500m 1km

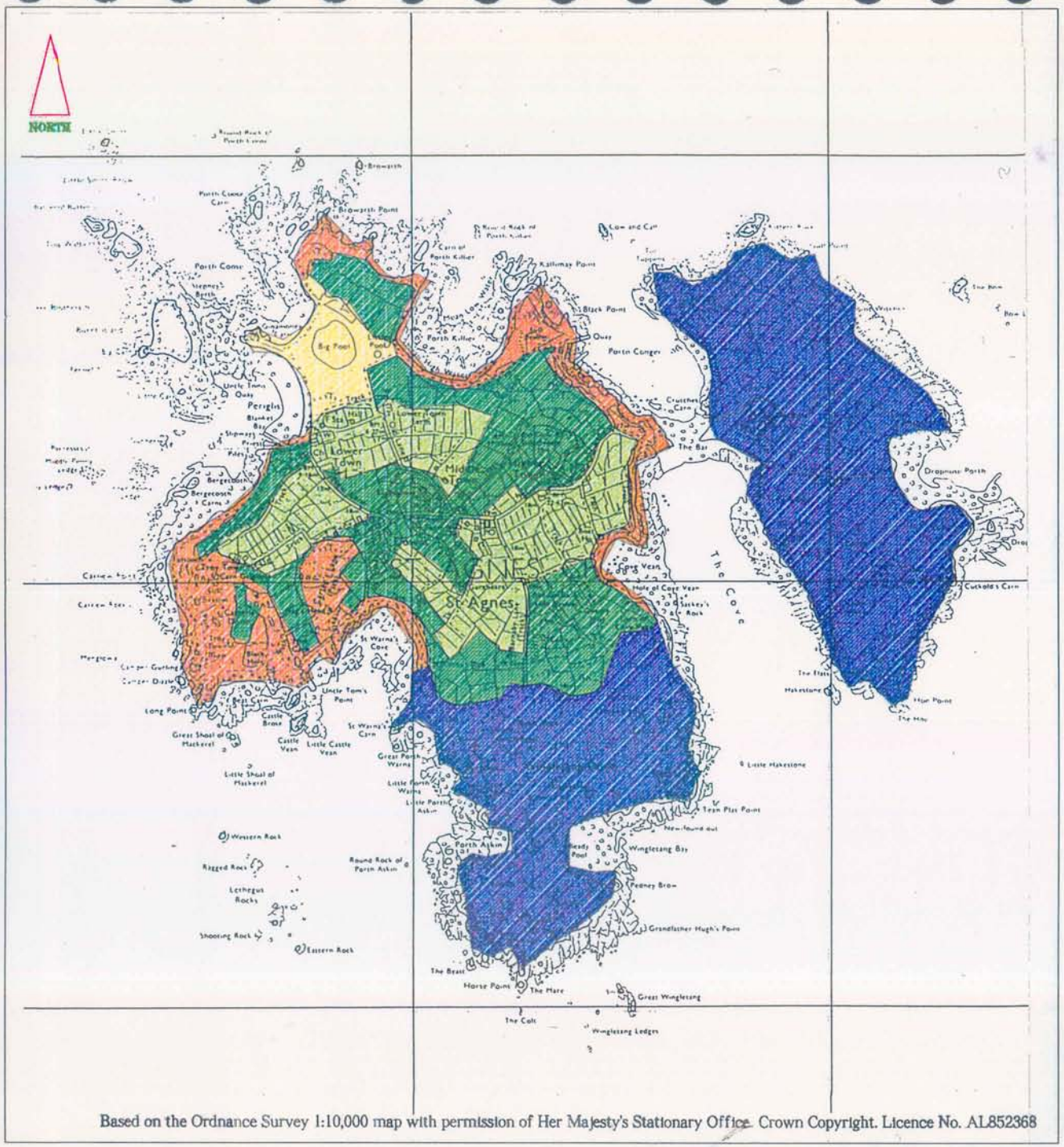


Fig. 7.2
St. Agnes:
LANDSCAPE TYPES

KEY

Headlands:

- Low-lying southern headlands

Coastal Edge:

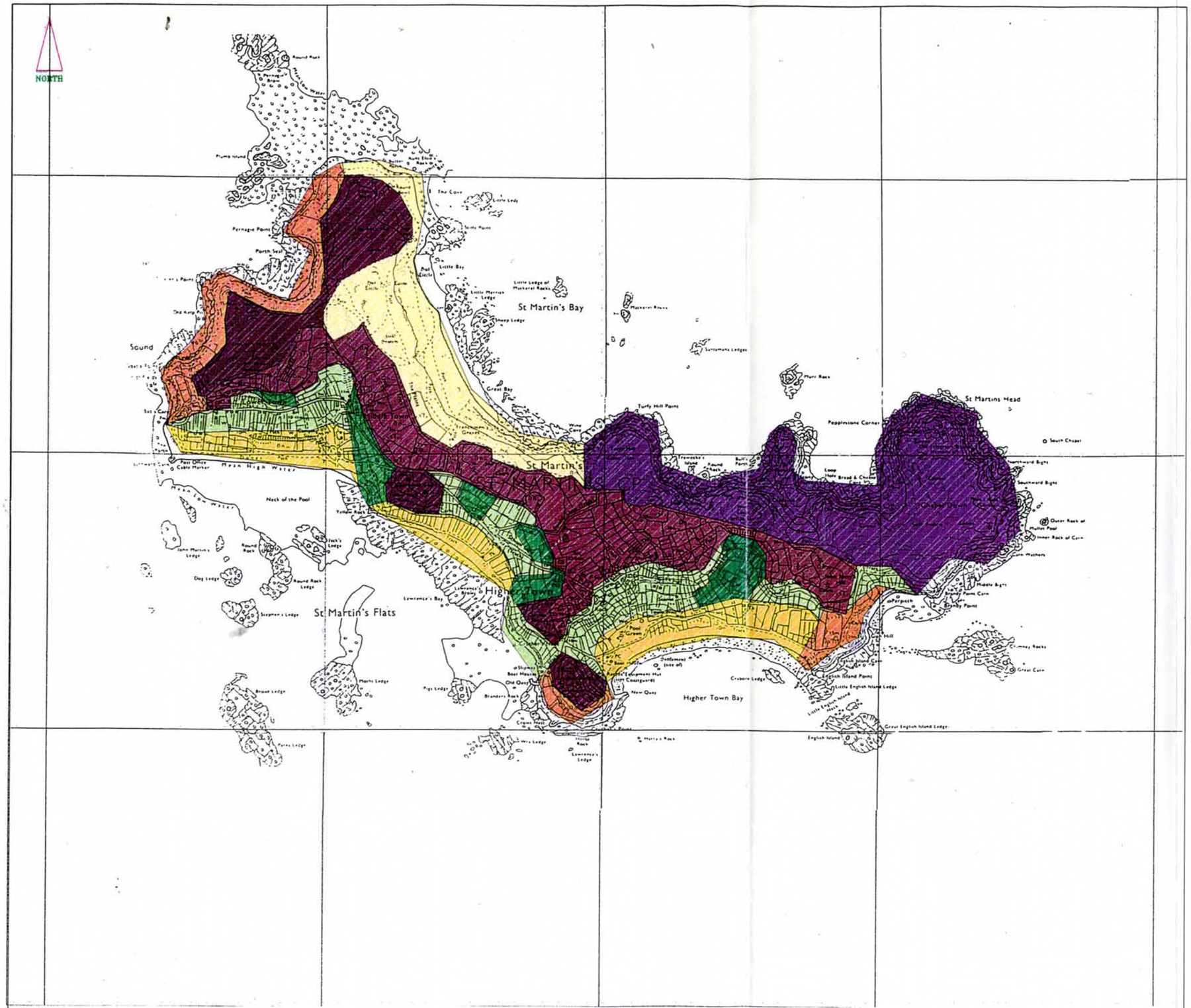
- Sandy coast with dune and grassland
- Rocky coast with heathland

Agricultural Land:

- Valley and hillslopes with bulbstrips
- Valley and hillslopes with fields

0 500m 1km

Fig. 7.3
St. Martin's:
LANDSCAPE TYPES



KEY

Headlands:

- Exposed headland heaths

Coastal Edge:

- Sandy coast with dune and grassland
- Rocky coast with heathland
- Sandy coastal strip with fields

Interior Hills and Valleys:

- Unenclosed hills
- Hilltop with agriculture

Agricultural Land:

- Valley and hillslopes with bulbstrips
- Valley and hillslopes with fields

0 500m 1km

NORTH

St Mary's Pool

HUGH TOWN

Porth Cressa

Salakee Down

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Fig. 7.4
St. Mary's: LANDSCAPE TYPES

KEY

Headlands:

- Exposed headland heaths
- Fortified headlands

Coastal Edge:

- Sandy coast with dune and grassland
- Rocky coast with heathland

Interior Hills and Valleys:

- Valleys with pools and marsh

Agricultural Land:

- Undulating agricultural interior

0 500m 1km

7.0 LANDSCAPE TYPES

EXPOSED HEADLAND HEATHS

Found at:

Bryher	Shipman Head Down
St. Martin's	Chapel Down
	Burnt Hill and Turfy Hill
St. Mary's	Peninnis Head
Tresco	Castle Down

Incorporates the following **Historic Landscape Types:**

- Heathland
- Rocky foreshore and offshore rocks
- Woodland (conifers)
- AEL (relict)
- Industrial (disused)
- Military
- Maritime safety

Description

7.1 The exposed windswept headlands, surrounded by sheer rugged cliffs and the sea are one of the islands' most characteristic landscapes. The granite headlands are typically north or north-east facing and are covered by thin, skeletal soils which, in such exposed, stressed locations, support a very distinctive wind-pruned vegetation, known as waved heath. The best examples of waved heath occur on the exposed northern headlands such as Shipman Head Down on Bryher and Chapel Down on the north east of St. Martin's and Castle Down on Tresco. Penninis Head on St. Mary's differs in that it is south facing and less exposed which has allowed much of the headland to be enclosed for agriculture. Peninnis Head is also distinctive for its granite outcrops which have been weathered into spectacular and dramatic features. Castle Down on Tresco includes an extensive shelterbelt along its eastern edge which helps protect the island from north-easterly winds.

7.2 Although each of the individual headlands is fairly small and contained in area their scale is magnified by the relative uniformity of the topography and vegetation cover. The surrounding expanses of sky and sea create an illusion of space and isolation so that the headlands appear to cover much larger areas and contrast greatly with the settled and managed interiors of the islands.

7.3 In prehistoric times, before they became degraded, the soils of the headland heaths were cultivated and today many relict prehistoric settlements and field systems can be found within these areas. A wide range of other types of monument survive including prehistoric ritual and burial monuments, early Christian chapels and churches and a host of post-medieval remains including fortifications, kelp pits and, on Tresco, a line of tin

workings. Many of these monuments are very well preserved. However, the encroachment of dense bracken, brambles or gorse in some areas obscures archaeological remains.

7.4 All of the headland heaths are notified by English Nature as SSSI reflecting their importance for nature conservation. They also contain most of Scilly's scheduled monuments.

Landscape Character

- Exposed windswept plateaux jutting out into the sea - taking the full brunt of Atlantic storms;
- Typically above 36m with steep rugged cliffs on all sides - sense of danger;
- Distinctive wind-pruned vegetation in most exposed areas with waved heath and maritime grasslands on the seaward sides and bracken and gorse on the more sheltered inland slopes;
- Granite outcrops weathered into distinctive tors such as Penninis Head;
- Illusion of isolation, space and wilderness that contrasts with the settled and managed interiors of the islands;
- Important for nature conservation (notified as SSSIs) with short lichen-rich heathland supporting important breeding colonies of birds such as Common Tern while the exposed cliffs may support colonies of Kittiwake and Fulmar and a number of nationally rare plants;
- Rich in archaeological sites including relict prehistoric settlements and field systems, ritual and burial monuments. contain most of Scilly's scheduled monuments;
- Attractive areas for recreation.

Management Issues

- Invasion of gorse and bracken onto the heathland in less exposed areas - need for management to reverse succession.
- Recreation pressure - creation of eroded and braided footpath routes.
- Damage to archaeological sites by overgrowth of gorse. Erosion by people.
- Dense bracken, bramble or gorse obscuring archaeological remains making access and interpretation difficult, if not impossible.
- The need for integrated land management to reflect the high wildlife, archaeological, recreation and landscape value of the headland heaths.

LOW-LYING SOUTHERN HEADLANDS

Found at:

St. Agnes	Wingletang Down
The Gugh	Whole island

Incorporates the following: **Historic Landscape Types:**

- **Heathland**
- Rocky foreshore and offshore rocks
- Blown sand/dunes
- AEL (relict)
- Bulb strips
- Modern enclosures (post 1908)
- Settlements

Description

7.5 The southern headlands of St. Agnes and the Gugh are lower in altitude than the exposed headland heaths, and are less exposed with a low rocky coastline. On Wingletang Down the granite outcrops which rise above the heather have been shaped into distinctive tors to create spectacular and dramatic features.

7.6 The headlands of Wingletang Down and the Gugh are both divided by a sandy tombolo of blown sand which gives rise to small sandy bays on either sides of the headland at Porth Askin, Wingletang Bay and Dropnose Porth. The vegetation comprises maritime grassland and waved heath with areas of dune grassland on the blown sand. The less stressed environment of these south facing headlands means that, without management, they are especially prone to growth of bracken and gorse at the expense of the heathland. The headlands are both notified as SSSI and are notable for their populations of nationally rare plants including Orange Bird's foot (*Ornithopus pinnatus*) growing in heathland which is rich in rare lichen species. The maritime grasslands include the nationally rare early meadow-grass (*Poa infirma*), the uncommon western clover (*Trifolium occidentale)* and the adder's tongue fern (*Ophioglossum azoricum*). On Gugh, the central bracken dominated area includes a large population of the nationally rare balm-leafed figwort (*Scrophularia scorodonia*). Breeding birds include ringed plover, storm petrel, herring gull and common tern, among others.

7.7 As with the other headland heaths, these areas are extremely rich in archaeology and include relict prehistoric field systems, round houses, numerous cairns, barrows and, on Gugh, a standing stone. Most, if not all, of these are scheduled monuments.

7.8 On Gugh, the sandy central portion of the island was cultivated in the early part of the twentieth century and a number of abandoned bulb fields surrounded by mixed hedges of veronica, escallonia, euonymus and pittosporum remain as a testimony to the former

habitation of this island. These abandoned fields on lighter soils are now noted for their populations of rare heathland species and arable weeds.

Landscape Character

- Low-lying, unenclosed headlands;
- Granite promotories separated by sandy tombolo's;
- Weathered granite outcrops forming natural tors;
- Low rocky coastline with sandy bays on areas of blown sand;
- Mixed vegetation including maritime heathland and grassland with areas of dune grassland - susceptible to invasion by gorse and bracken;
- Rich in archaeological sites. Most, if not all, of which are scheduled;
- Important nature conservation sites including nationally rare plants and breeding bird colonies. Both Wingletang Down and the Gugh are SSSIs;
- Derelict bulbfields on Gugh - important for their population of rare heathland species and arable weeds.

Management Issues

- Invasion of heathland by gorse scrub and bracken, obscuring archaeological sites and overgrowing footpaths;
- Damage to archaeological sites by overgrowth of gorse and erosion;
- On the Gugh - loss of rare arable weed flora through abandonment of fields - need for management by annual cultivation.

FORTIFIED HEADLANDS

Found at:

St. Mary's The Garrison

Incorporates the following **Historic Landscape Types**:

- Heathland
- **Military (disused)**
- Bulb strips
- Recreation
- Settlement
- Industrial (disused)
- LPE
- Woodland (conifers)
- Communication

Description

7.9 The Garrison is a rounded granite promontory on the south side of St. Mary's, joined to the rest of the island by a narrow neck of blown sand at Hugh Town. It is lower in altitude and less exposed than the headland heaths, and its sides gently slope up from a low rocky coastline to a rounded plateau at about 35 m OD. The Garrison has a mixed land cover including rough unenclosed heathland over much of the western side of the headland with twentieth century enclosed fields and bulb strips on the plateau and more sheltered slopes overlooking Hugh Town. These are protected by extensive shelterbelt plantings of Monterey pines.

7.10 This strategically important headland controls the deep water channels into Scilly's main harbour. It contains an impressive range of fortifications spanning some 350 years representing successive periods of raiding, hostility and war, including those dating from the Elizabethan period, Civil War, Eighteenth Century Spanish Wars, Napoleonic Wars and World Wars One and Two. The Garrison is of national importance for the complexity and survival of its fortifications and this military character is now the dominant feature of the landscape. The Garrison Walls and magazine farm a Property in Care (PIC) protected and managed by English Heritage.

Landscape Character

- Gentle, rounded headland with low rocky cliffs;
- Strategically important promontory controlling channels into Scilly's main harbour;
- Range of habitats including acid grassland, heathland and maritime grassland as well as recent grazed enclosures and bulb fields;

- Impressive range of fortifications, including earthworks, stone structures and buildings of national importance. Many are scheduled monuments or listed buildings;

- Popular visitor attraction - 'a walk around the walls' with views across St. Mary's and off- islands;

- Garrison Walls are noted for the rare and unusual plant communities that they support.

Management Issues

- Recreation pressure leading to footpath erosion along cliff edges and slopes;

- Extensive invasion of bramble, bracken and gorse;

- Risk of fire;

- The need for restoration of shelterbelts;

- Loss of important and rare flora on Garrison walls;

- Degeneration of former bulb fields to bracken and loss of hedges;

- The need for on-going maintenance of the Property in Care;

- The need to record Civil War earthworks which are being badly eroded by the sea;

- The need to consolidate and manage 1900s concrete batteries and searchlight emplacements;

- Coastal erosion continuing to threaten all defences located on the cliff edge including the Garrison Walls;

- Need for close control of further built development - which will impinge on the historic character of this area;

- Need for integrated land management to reflect the historic, archaeological, landscape, recreational and wildlife values of this area.

SANDY COAST WITH DUNES OR GRASSLAND

Found at:

Bryher	Great Pool and Great Porth
	Eastern coastal strip
St. Agnes	Big Pool
St. Martin's	Great Bay and the Plains Bay,
St. Mary's	Bar Point
	Porth Hellick
Tresco	Pentle Bay - Appletree Banks
	Lizard Point - Old Grimsby

Incorporates the following **Historic Landscape Types:**

- **Blown sand/dunes**
- **AEL (relict)**
- **Sandy foreshore** (beach and intertidal flats)
- Woodland (conifers)
- Communication
- Military
- Water

Description

7.11 Blown sand forms an important component of the Island's geology and frequently unites two or more separate granite masses, by a sandy neck, into one island. Alternatively the sand may be accumulated in sheltered areas to create a low-lying sandy coastal strip around the edge of an island. In sheltered areas fronting the interior sea these form the long white quartz sandy beaches, curving around calm bays, for which the islands are famous. These sandy bays are frequently backed by accreting dune systems with marram grass. In addition, naturalised exotic species such as Agapanthus and Hottentot Figs can create spectacular splashes of colour across the dunes. On St. Martin's such a sandy area with dunes also occurs on the more exposed north coast, where it is sheltered by White Island. Here, the sand has been blown inland, clothing the granite hills and creating the bracken covered area known as the Plains.

7.12 The blown sand covers prehistoric structures and layers which survive as a 'buried landscape' that can be re-exposed by coastal erosion or sand extraction. A range of later remains survive on the dune surface - for example relict post-medieval field systems and Civil War batteries. The sandy foreshore and intertidal flats also contain numerous archaeological remains and include relict prehistoric (and later) settlements, field systems, graves and ritual monuments. Submerged peat deposits are present in a number of bays and contain a rich palaeoenvironmental resource providing evidence on the vegetation history of Scilly and the evolution of its coastline.

7.13 The sandy coastal strip may also support a short turf sward and frequently include small freshwater or brackish pools such as Abbey Pool on Tresco, Great Pool on Bryher and Big Pool on St. Agnes, which are important nature conservation sites, (SSSI's)..

Landscape Character

- Low-lying sheltered, coastal areas frequently backing wide sandy bays;
- Varied character according to location, size and aspect, including short turf swards, dune pasture and accreting dune systems;
- The areas of short grass turf often contain open water pools;
- High nature conservation value , including outstanding lichen flora, nationally rare plants and invertebrates and important sites for breeding seabirds such as Common Tern and Ringed Plover;
- Blown sand cloaks a buried prehistoric landscape and later remains survive on the surface. Many of these are already or will shortly be scheduled;
- Submerged archaeology on the intertidal flats;
- Of great attraction for visitors.

Management Issues

- Recreational pressure leading to footpath erosion and scouring with loss of vegetation cover, also cutting of trackways and passage of heavy vehicles leading to destabilisation of dune systems;
- Extraction of sand - destabilisation of dune systems;
- Re-exposure and destruction of archaeological sites by sand extraction and coastal erosion;
- Invasion and spread of dense stands of bracken and bramble as well as exotic species;
- The need to maintain waterlevels and water quality in pools which are of high nature conservation interest (SSSIs)
- Damage to sensitive archaeological sites by coastal defence works;
- Coastal erosion;
- Damage to archaeological sites by burrowing animals (rabbits);
- Damage to shoreline peat deposits.

ROCKY COAST WITH HEATHLAND

Found at:

St. Agnes	Island edge
St. Martin's	Island edge (nw)
St. Mary's	Island edge

Incorporates the following **Historic Landscape Types:**

- **Heathland**
- Blown sand/Dunes
- Woodland (conifers)
- AEL and (relict) AEL
- LPE
- Bulb strips
- Modern enclosures
- Military
- Industrial (Disused and Existing)
- Maritime safety
- Settlements
- Recreation
- **Rocky foreshores**

Description

7.14 On many islands a strip of rocky coastline and rough heathland separates the managed interior from the sea. These granite edges are smaller in scale, less exposed and have a lower rocky coastal edge compared to the Headland Heaths and are often directly adjacent to managed agricultural land and therefore do not have the same sense of wilderness and isolation. On St. Mary's much of the coastal edge on the northern and eastern side of the island has been planted with pine shelterbelts to protect the interior agricultural land and here the presence of trees increases the sense of enclosure.

7.15 The coastal edge may also include small parcels of enclosed land, usually either anciently enclosed fields with stone wall boundaries or bulb fields with dense shelter hedges. Such areas have often been abandoned or receive only a low level of agricultural management. Evidence of earlier field systems on the heathland attests to the importance of the coastal areas for agriculture at one time. On St. Mary's, in particular, several of the farmsteads are connected to the outlying coastal land by winding lanes and tracks.

7.16 The coastal edges contain an important archaeological resource including all the types of monument found on the headland heaths (relict prehistoric settlements and field systems, ritual and burial monuments and a whole host of post-medieval remains). The rocky foreshore itself is largely barren in terms of historic remains but does include ruined and still functioning quays and slipways of medieval to 19th century origin.

7.17 The island edges are also important for recreation providing circular access around the island coastline. The presence of deeper soils on previously cultivated areas as well as the more sheltered conditions means that much of the heathland and maritime grassland

in these areas has been invaded by bracken, bramble and gorse, although many of the areas still are, or have the potential to be of considerable nature conservation interest.

Landscape Character

- Narrow strip of land backing a rocky coastline;
- Lower in altitude, smaller in scale and less exposed than the headland heaths;
- Predominantly unenclosed with heathland and bracken, but occasionally with small enclosed fields isolated from the larger blocks of agricultural land which occur within the interior of the islands;
- Enclosed fields are often abandoned - a reminder of a once more extensive agricultural economy;
- Frequently with footpaths providing circular access around the island coastline;
- Heathland usually unmanaged;
- Rich in archaeological sites, many scheduled (5 Properties in Care);
- On St. Mary's the north-eastern coastal edge includes several pine shelterbelts dating from the time of Augustus Smith but also including more recent plantations, planted to provide shelter for the agricultural interior.

Management Issues

- Recreational pressure including (on St. Mary's) increased use by off road bikes leading to footpath erosion;
- Invasion and encroachment of bracken/bramble on heathland and abandoned fields;
- Damage to archaeological sites through erosion and vegetation encroachment;
- Appropriateness of recent conifer planting along coastline - damage to archaeological earthworks and landscape impact;
- Many areas of heathland/grassland would traditionally have been maintained by grazing. This relationship with neighbouring farmland has now been lost.

SANDY COASTAL STRIP WITH BULB FIELDS

Found at:

St. Martin's Southern Coastal Strip

Incorporates the following **Historic Landscape Types:**

- **Blown sand/dunes**
- **Bulb strips**
- Modern enclosures
- Communication
- Recreation
- **Sandy foreshore**

Description

7.18 On St. Martin's the sandy coastal strip on the southern, more sheltered side of the island extends inland beyond the dune system creating a flat apron of low-lying land between the rising granite hills which form the central spine of the island and the coast. These sheltered areas with light sandy soils were at one time intensively cultivated as bulb fields although many have now largely fallen out of use. In consequence, many shelter hedges have been lost and fields have either become choked with bracken or reseeded as grass pasture. Here, the remaining hedges do not create a strong visual impression compared to the bulb strips located on the hillslopes. They have been identified as a separate landscape type since it is these sandy bulb fields which support the richest populations of arable weeds of great botanical interest. These can create spectacular splashes of summer colour include white and yellow of three-cornered leek and Bermuda buttercup, golden corn marigolds and a pink haze of fumitaries and mallow, red poppies and magenta gladiolus. These areas therefore, have very specific management requirements.

Landscape Character

- Flat, low-lying area, on blown sand between the coast and rising land of the interior;
- Sheltered by surrounding topography, and sand dunes on the coastal side;
- Previously cultivated as bulb fields - although few remain in use today;
- Support rich populations of important and rare arable weeds.

Management Issues

- Encroachment and invasion of bracken within abandoned fields - and loss of important and rare arable weeds;
- On fields remaining in cultivation - loss of arable weed flora through intensification and herbicide treatments;

- Deterioration and loss of shelter hedge structure and pattern;
- Need to maintain stone walls.

UNENCLOSED HILLS

Found at:

Bryher	Watch Hill
	Timmy's Hill
	Samson Hill
St. Martin's	Gun Hill
	Cruther's Hill
	Carrion Rock
	Tinkler's Hill
	Top Rock Hill

Incorporates the following **Historic Landscape Types :**

- **Heathland**
- **AEL (relict)**

Description

7.19 This landscape type typically takes the form of gentle rounded granite hills reaching between 30 and 40m height rising from the surrounding agricultural land. They are best represented on Bryher where the three granite hills protrude above the weathered head material of the valleys. On St. Martin's, the granite outcrop is clothed with blown sand and the changes in relief are therefore less dramatic.

7.20 The vegetation of the unenclosed hills includes acid grassland\heathland and gorse scrub with fringes of bracken. While these areas would at one time have been grazed and formed part of the farmed lands - they are now almost entirely unmanaged and the vegetation includes impenetrable thickets of gorse scrub. Archaeological sites include groups of prehistoric cairns, entrance graves, and relict field systems and post-medieval lookouts on the exposed summits. The hills themselves provide shelter which allows settlement and cultivation of the lower-lying land. For example, on Bryher, The Town nestles on the slopes in the lee of Watch Hill while the smaller settlement of Southward shelters just below Timmy's Hill.

Landscape Character

- Small rounded granite hills;
- Important sites for obtaining island and coastal views;
- The rough unenclosed open land provides a contrast with the enclosed and managed agricultural landscape below;
- Important range of archaeological sites; most are scheduled.

Management Issues

- Dense thicket of gorse - obscuring footpaths and archaeological sites, and possibly causing root damage to archaeological remains;
- Encroachment of bracken and gorse on acid grassland and heathland habitats;
- The need to reinstate traditional management by grazing.

HILLS WITH WOODLAND

Found at:

Tresco Abbey Hill
Middle Downs

Incorporates the following **Historic Landscape Types:**

- **Heathland**
- **AEL**
- **LPE**
- **Bulb strips**
- **Woodland (conifers)**
- **Ornamental**

Description

7.21 This landscape type is unique to Tresco. Here, the hills take the form of low granite mounds with broad plateau tops and gently sloping sides. The hills tops and crest are clothed with dense plantations of mixed woodland including Monterey pines and cypress, sycamore, holm oak, willow, rhododendron, elm and eucalyptus. These plantations extend as narrow shelterbelts down the hillslope and fringe the agricultural land. When viewed from other islands or the sea - the rising dark wooded areas are visually prominent and appear to dominate much of the central part of Tresco, with the agricultural land on the hillslopes shrinking out of view.

7.22 The trees were planted in the middle and late nineteenth century by Thomas Algernon Dorrien Smith (Augustus Smith's nephew and successor) to reduce wind speeds and filter salt from the north easterly winds - a function which the trees still performed up until January 1990 when near hurricane force winds uprooted almost half of the woodland area. The world famous nineteenth century sub-tropical gardens created by Augustus Smith nestle within the southern leeward slopes of Abbey Hill and are sheltered and protected by the hilltop woodlands.

7.23 The woodland, particularly on Middle Down, appears to have been managed, in recent years, as game cover with wide grassy rides and shrubby edges. The slopes of Middle Down also differ in character to those of Abbey Hill in that they are in mixed agricultural with narrow shelterbelts extending down from the hilltop. These fields include anciently enclosed land around Borough, late post-medieval enclosures, late 19th/20th century bulb strips as well as modern (post 1908) enclosures. The fields are larger in area than those of the other off-islands and many have been modified, including the rebuilding of boundary walls to an estate style consisting of neatly built stone-faced stone and earth walls with vertically set stones on top. The mix of pasture and bulbfields has required the additional use of electric fences or barbed wire run on top of the stone walls to make areas stockproof.

7.24 The bulb fields are sub divided by shelter hedges of olearia and pittosporum, although by reason of their larger size and aspect they do not have the character of the hillslope bulb

strips found on other off-islands. Many of these fields are known to support rare arable weeds and unusual alien species (escapes from the Abbey Gardens) which have become an established element of the local flora.

7.25 The hills include a number of archaeological monuments, for example cairns on Abbey Hill.

Landscape Character

- Low broad hills reaching 25 - 30 m height, each with a wide, plateau summit and steeper sides;
- Plateau tops and crest clothed with dense mixed woodland, which on Middle Down extend as narrow shelterbelts down the lower slopes of the hill;
- Woodlands extensively damaged by the 1990 storms - some areas still have ragged outline. Currently in the process of repair and replanting;
- The woodlands are the visually dominant feature of the central and southern part of the island when viewed from other islands, the air or the sea;
- The woodlands provide essential shelter and salt filter for the sub-tropical gardens of Tresco Abbey;
- Hillslopes of Middle Down are in mixed agricultural use.

Management Issues

- Need for continued replanting and aftercare following the ravages of the 1987 frost and 1990 storm, particularly On Abbey Hill where the trees provide essential shelter for the Abbey Gardens.
- Management of woodlands needs to reflect nature conservation and aesthetic aspects as well as purely functional requirements of shelter and game cover;
- Need to ensure new planting and regeneration of trees and scrub does not encroach on archaeological remains (e.g. rhododendron on the cairn on Abbey Hill);
- Management of agricultural land needs to reflect nature conservation objectives (rare arable weeds and birds);
- Need to conserve historic pattern of enclosed land in general, and early boundaries (e.g. those at Borough) in particular.

HILLTOP WITH AGRICULTURE

Found at:

St. Martin's Plateau

Incorporated the following **Historic Landscape Types:**

- **AEL**
- **LPE**
- **Bulb strips**
- **Modern enclosures**
- Communication
- Industrial (disused)
- **Settlements**

Description

7.26 The central spine of St. Martin's takes the form of a curved ridge of granite running west-east which sweeps down to the sea in a series of valleys and sheltered bowls on the southern side, and lies open and exposed to the Atlantic on the north. This hilltop plateau lies at between 30 - 40m, and has been enclosed for agriculture. It includes both anciently enclosed land as well as late post-medieval enclosures, 19th/20th century bulb strips and modern (post 1908) enclosures. The hilltop fields tend to be larger, more rectangular and square shaped compared to the bulb strips laid out on the south facing hill slopes (see 7.38). Field boundaries are predominantly drystone walls and stone faced stone walls. The presence of lynchets and low banks and other surface features within fields suggests the prehistoric origin of some of the enclosed land.

7.27 While some of the fields are still maintained as grass keep, the majority of land on this exposed hill top plateau has been abandoned. Many of the fields are filled with gorse and bracken, often overtopping the boundary walls - so that the pattern and structure of the agricultural landscape has disappeared. In some places the gorse has become so dense it is causing the collapse of the boundaries. Elsewhere the abandoned fields spill over the crest of the hilltop plateau and create a strong visual impression of neglect when viewed from the more managed coastal fringe.

7.28 Only the central part of the plateau, that is the fields directly to the north of Higher Town, either side of Pound Lane and around the Church, appear to be in productive agricultural use. Here, there is a mixture of both grass pasture and bulb fields as well as polytunnels. Shelter hedges of pittosporum and euonymus provide additional enclosure and protection and there are few stone walls. St. Martin's is considered to be particularly rich in native arable weeds and the fields around the Church once contained the only population of the St. Martin's buttercup - which, unfortunately, was sprayed out in the mid 1980's.

Landscape Character

- East-west ridge running along the centre of St. Martin's;
- Exposed hilltop plateau, open to the Atlantic on the north;
- Rectangular or square-shaped fields with stone wall boundaries;
- Predominantly, abandoned and neglected agricultural land, gorse-filled fields;
- Intensification of farming within small areas;
- Includes anciently enclosed land of prehistoric origin, with historic boundaries and features within existing fields.

Management Issues

- Need for management of fields on the crest of the hilltop - i.e. to re-create the character of a 'managed' landscape sweeping up from the coastal fringe, rather than as at present - a derelict landscape spilling down from the plateau;
- Loss of pattern and diversity in the landscape with intensification of farming on some areas and abandonment of remainder;
- Need for environmentally sensitive farming to retain important and rare arable weed flora;
- Need for grazing which would have been the traditional use of the enclosed pasture;
- Need to preserve the historic pattern of the enclosed land and early (prehistoric) boundaries in particular.

VALLEYS WITH POOLS AND MARSH

Found at:

St. Mary's	Higher Moors
	Lower Moors - Porthloo
Tresco	Great Pool

Incorporates the following **Historic Landscape Types:**

- **Valley bog/marsh**
- **AEL and relict AEL**
- **Woodland (broadleaf)**
- Water
- Settlement

Description

7.29 There are two low lying areas on St. Mary's known as the 'Moors' and Great Pool on Tresco, which are protected from inundation by the sea by coastal dune systems. The water areas are surrounded by reed beds and, in the drier areas, grey willow and elm scrub . Higher Moor also contains the only freshwater stream in Scilly which rises in Holy Vale and continues down a narrow wooded valley to Porth Hellick Pool. These areas, all notified as SSSI, are of great nature conservation interest. The freshwater, pools and marshes and adjacent grasslands are rare habitats on the Islands. As well as being an important site for native birds the reedbeds are also important staging posts for large numbers of migrant birds. Numbers of passage 'marsh type' warblers using (in particular) the reedbeds on Higher Moors are also considerably higher than previously thought with a very high proportion of these being non-UK birds.

7.30 The moors on St. Mary's were at one time grazed by cattle and relict early enclosures survive as surface features. Documentary evidence also exists for the mires having been important sources of peat for fuel and remnants of peat cuts and baulks can still be clearly seen at both Higher and Lower Moors. The surrounding peat contains valuable information on the vegetational history and changing sea level of Scilly.

Landscape Character

- Low lying wide valleys with open water pools, fringed by reeds with edges of grey willow, sallow and elm thickets;
- Formerly enclosed with relict early enclosures and evidence for peat cutting surviving as surface features;
- Surrounding fields with network of drainage ditches and channels;
- Higher Moors and Lower Moors - popular walks for residents and visitors (also allowing access for less abled);

- Of great historic and archaeological importance;
- Very high nature conservation value - all are notified as SSSI particularly important for breeding and migrant birds;

Management Issues

- Need to recognise archaeological and palaeoenvironmental value of the bogs and marshes. A detailed survey of each mire is required to ensure that future management of these areas takes into account their historic importance;
- Reduction of water levels leading to drying out and degradation of the peat;
- Need to limit extent of tree growth (willow carr) and invasive scrub - to prevent drying out of, and root damage to, the peat deposits - an irreplaceable paleoenvironmental resource;
- Threat of inappropriate management for example, enlargement of existing pools which can both reduce 'in-situ' peat and destroy archaeological remains;
- Need for integrated management to reflect the very high nature conservation, historic and archaeological value of these areas.

VALLEY AND HILLSLOPE WITH FIELDS

Found at:

Bryher	North, central and southern lateral valleys.
St. Agnes	Slopes north of High Town Slopes to the north and south of Middle Town North of Wingletang Down.
Tresco	Slopes to the north and south of Dolphin Town.

Incorporates the following **Historic Landscape Types**:

- **AEL**
- **LPE**
- Bulb strips
- **Modern enclosures**
- Communication
- settlement

Description

7.31 In contrast to the extensive coastal heathlands and the intensively managed bulb fields, are the enclosed fields of the hillslopes and valleys which characterise the inhabited off islands. These are grazed by a diminishing number of cattle and sheep. Most of the fields within this landscape type are anciently enclosed land but also include late post-medieval and modern enclosures. The field boundaries include robust stone-faced stone and earth walls and drystone walls.

7.32 The history of the fields is reflected in their variety of shapes and sizes. Sinuous boundaries enclosing irregular fields are usually of early origin. In some cases the fields can be identified as the remains of a pre historic rectilinear system with lynchets surviving along existing boundaries and within the present fields. The various shapes and sizes combine to create a patchwork of managed land distinct from the small scale hedged bulb strips. Good examples of this landscape type can be found along the broad lateral valleys of Bryher and on the slopes of St. Agnes where the pasture extends uphill among the bulb fields, connecting the farmsteads of Middle Town with the surrounding coastal heaths. On Tresco, where much of the field pattern was rationalised by Augustus Smith and his successors, the landscape of the enclosed fields is subtly different. Here the fields are larger with straight boundaries generally constructed in the Tresco Estate 'house style'.

7.33 These enclosed pastures would have once played an essential role in the agricultural economy providing in-by pasture for livestock, which would also have grazed the surrounding unenclosed coastal heathlands, and/or would have been managed as hay meadows to provide winter fodder. The early OS maps show many of these fields to contain small buildings - most probably field shelters or barns for the storage of winter fodder. Today, only a few of these traditional granite barns remain. Livestock numbers on the islands have declined considerably and so these pastures have also declined with abandoned fields, particularly those in more marginal areas on hillslopes or adjacent to the unenclosed land, being invaded by bracken and gorse. Although most of these

grasslands have been improved in the recent past - some, such as those on the damp valley bottom are, or have the potential to become, more species-rich with appropriate management.

Landscape Character

- Formerly cattle and sheep - grazed pastures on hill slopes and within valleys;
- Fields predominantly anciently enclosed land with stone wall boundaries and in some cases including historic features within fields;
- Important intermediate landscape between the small scale regular bulb fields and open heathland and coast.

Management Issues

- Need for increased grazing to ensure that marginal fields do not become rough land;
- Need to maintain historic landscape pattern, including field boundaries and any historic features surviving within existing fields;
- In the absence of livestock, need to consider management by haycropping as well as grazing.

VALLEY AND HILLSLOPES WITH BULB STRIPS

Found at:

Bryher	Slopes of Watch Hill, Timmy's Hill and Samson Hill
St. Agnes	Slopes surrounding Middle and Higher Town
St. Martin's	Along the south facing slopes on the central spine
Tresco	Valley between Old Grimsby and New Grimsby

Incorporates the following **Historic Landscape Types:**

- AEL
- **Bulb strips**
- Modern enclosures
- Communication
- Settlements

Description

7.34 The bulb strips and their enclosing shelter hedges create an intimate, domestic landscape which provides a foil to and contrast with the rugged expanses of exposed heathland, coastline and the open ocean. Often located within sheltered hollows on warm south facing slopes, the bulb strips are a unique and highly visible agricultural landscape and are one of the most distinctive features of the islands.

7.35 The bulb strips, which were largely created during a twenty year period between 1888 and 1908, represent an important part of Scillonian agricultural history. The majority of strips were created by the subdivision of anciently enclosed land and, to a lesser extent late post-medieval enclosures, and there are only a few cases of rough, unenclosed land being newly taken in for this purpose. The distinctive pattern of parallel strips formed by the bulb fields tends to obscure the original field patterns - although the stone wall boundaries of this earlier landscape often still survive and can occasionally be picked out, particularly where the shelter hedges have been lost.

7.36 These fields were originally subdivided into small rectangular strips, often less than 0.1 ha in area, by shelter hedges, known locally as fences. Elm and tamarisk were the earliest hedge shrubs to be used and can still be seen for example on the north slopes of St. Agnes and the valley bulb fields of Bryher. However, these species were not very effective in filtering the salt-laden winds and were later replaced by evergreen shrubs such as escallonia, veronica, euonymus and coprosma. The most successful introduction was a New Zealand shrub - *Pittosporum crassifolium* which provides a dense, thick, fast growing and salt resistant shelter hedge. Pittosporum is still the most common hedge, although following the 1988 frosts, attempts have been made to establish more hardy species such as *Olearia traversii*.

7.37 The landscape character of the bulb strips principally reflects the pattern of the subdividing hedge species and their management. In Scilly the flowers are normally picked whist in bud so that the bulbfields themselves do not generally create spectacular splashes of colour. However, the sheltered bulb strips also provide an ideal habitat for

many wild plants, particularly arable weeds producing remarkable spring and summer colour.

7.38 The character of the bulb strip landscape varies considerably from island to island. On St. Martin's, for example, the bulb strips are characterised by large euonymus and fuchsia hedges, frequently greater than 3m high and up to 2m wide which are very different to the closely trimmed shelter hedges found on the hillslopes of Bryher. The species used also create a strong local identity. Although whole hedges, or indeed whole farm tenancies may be planted with a single species, these areas can combine together, to create a subtle patchwork reflecting the colour and textures of the different species. This is seen to best effect on the slopes of St. Agnes where the hedges include the grey and dark green of pittosporum, the silver white bushy outline of Olearia; feathery pink Tamarisk and the glossy green of Euonymus.

7.39 In these hillslope locations, lack of management can have a very strong visual impact. The bulb strips very quickly loose their structure, pattern and definition with hedges growing ragged and fields becoming filled with bracken, and isolated regenerating bushes of pittosporum.

Landscape Character

- Distinctive and unique landscape on sheltered hillsides created by pattern of parallel hedges;
- Small, intimate and domestic in scale provides contrast to open coast and heaths;
- Pattern and variety of colour and texture provided by mix of hedge species and methods of management;
- Value for wildlife - hedges for nesting birds and less intensively cultivated bulb strips of importance for rare arable weeds;
- Representative of an important phase in Scillonian agricultural history.

Management Issues

- Loss of hedges in 1987 frost and (temporary) ragged nature of regenerating hedges. Need to preserve distinctive pattern of shelter hedges in the bulb strips;
- Decline in hedge management - changing from sharp defined features to a more bushy, ragged outline;
- Decline in flower farming - neglected appearance, bracken filled, fields with intermittent hedges, often allowed to grow out into bushes and trees;
- Need to retain the traditional mix and variety of hedge species - changes in hedge species- e.g. to Cupressus and Leylandii - may create a more ubiquitous, suburban appearance;

- Need for hedge planting and management to benefit birds;
- Need to cultivate some of the abandoned and 'resting' bulb fields to maintain the important and rare population of arable weeds;
- Need to retain herbicide free strips along the shelter hedges in intensively cultivated fields as a refuge for arable weeds;
- Need to maintain surviving stone wall boundaries - a remnant of the underlying landscape of anciently enclosed land.

UNDULATING AGRICULTURAL INTERIOR

Found at:

St. Mary's All central agricultural land

Incorporates the following **Historic Landscape Types:**

- **AEL**
- **LPE**
- **Bulb Strips**
- **Modern Enclosures**
- Woodland (conifers)
- **Communication**
- Industrial (disused)
- Maritime safety
- Water
- **Settlement**
- Recreation

Description

7.40 The agricultural interior of St. Mary's is different in character and more homogenous than the agricultural land of the off-islands - and for this reason has been identified as a single landscape type. The gentle undulating landscape includes slopes rising from the wide valleys of Lower and Higher Moors, the narrower wooded Watermill Valley and Holy Vale, and the rounded plateau hills at Halangy Down, the golf course and the airport.

7.41 On St. Mary's the central agricultural area is more isolated from the extreme influence of the sea and individual fields are larger in area than those of the other islands. Another difference relates to the presence of trees which are a prominent feature of St. Mary's creating the appearance of a wooded landscape. They include pine shelterbelts originally planted in the mid-nineteenth century by Augustus Smith as windbreaks around and between blocks of farmland, particularly in the north-east part of the island, as well as a large number of elms, originally planted as hedges, which have now grown out to create lines of wind-stunted trees along field boundaries and 'avenues' enclosing the narrow winding lanes and trackways. These trees have been supplemented by more recent coniferous shelter belt planting on the coastal fringes.

7.42 St. Mary's has a much greater percentage of anciently enclosed land than any other island and fewer bulb strips. The reason for this is that flower cultivation has generally taken place within existing fields rather than within subdivided strips or newly laid out bulb strips. Within the anciently enclosed fields stone boundaries are principally drystone walls, but with stone-faced stone walls and stone-faced earth walls (bank-like in places) also occurring. Stone boundaries are sometimes lined with hedges or elm trees, and in some cases the boundary is formed by a hedge or line of trees alone - suggesting that if the boundaries are of ancient origin, that the earlier stone wall may have been robbed out for use elsewhere. Much of the anciently enclosed land on St. Mary's has a medieval character, particularly the gently sloping basins of land around Higher and Lower Moors.

Most of the road, lanes and settlements of St. Mary's are considered to be of medieval origin. Pockets of prehistoric anciently enclosed land also exist (for example north of Mount Todden Down and on the northern edge of Peninnis Head) and here lynchets occur along some boundaries and within some existing fields.

7.43 The late post-medieval enclosures on St. Mary's mainly represent new intake, for example along the swathe of high ground south of Telegraph Hill and north of Helvear Farm but there is also some modification of anciently enclosed land, for example, north of Old Town or at Carn Wrean near Pelistry. More recent enclosures consist of a small area of new intake, for example, north of Trenoweth but are mainly modifications of older field systems.

7.44 While the field pattern of St. Mary's agricultural land spans the whole range of historic farmland landscape types from prehistoric through to the twentieth century, it is, in many cases difficult to see these differences on the ground. Today, much of the interior of St. Mary's has a similar landscape character; small to medium sized fields enclosed by stone walls, to a greater or lesser degree subdivided or lined by shelter hedges and trees depending on the agricultural use of the land.

Landscape Character

- Gentle undulating relief - low hills and valleys;
- Sheltered interior - removed from the extreme influence of the sea;
- Patchwork of small - medium fields, with stone wall boundaries and hedges, mainly anciently enclosed land, but also including late post medieval and modern enclosures and bulb strips;
- Many stone boundary walls are covered with a dense layer of bramble and bracken - can appear as lines of vegetation rather than walls;
- Homogenous landscape with mix of pasture, bulb fields and grass ley;
- 'Wooded' appearance including pine shelterbelts and lines of elm. Shelterbelts particularly prominent in the northern part of the island;
- Network of sunken winding, elm lined lanes (medieval) linking farmsteads and settlements and the coastal edge - providing good network for recreation;
- Many small nucleated farmsteads with variety of outbuildings and barns - under threat of conversion and loss of rural character;
- Several farmsteads in northern part of the island surrounded by small remnant orchards;
- Intrusion of modern development in visible locations, including radio masts at Halangy Down, installations associated with the airport and new buildings.

Management Issues

- Need to maintain pattern and grain within the landscape - maintain distinction between different historic landscape types;
- Need for more environmentally sensitive farming methods - including herbicide free margins to allow growth of annual weeds in summer. Need to avoid spraying of stone walls;
- Lack of grazing leading to deterioration of pasture and walls (bramble and bracken covered);
- Need to conserve the rare arable weed population;
- Scope for small scale field corner tree and shrub planting;
- Appropriate repair of the pine shelterbelts (need for sensitive location of new planting particularly regarding archaeological sites);
- Preservation of orchards and traditional Scilly apple varieties (Scilly Pearl, Ladies Finger etc.);
- Need for repair and management of stone wall boundaries and preserve historic features surviving within existing fields;
- Need for repair and management of shelter hedges.

8.0 ISLAND DESCRIPTIONS

8.1 On each island the different landscape types, described in the previous chapter, occur together in different combinations and locations with the result that each island has its own unique character. This chapter brings together the various elements identified for each of the generic landscape types to provide a synopsis of the character of each island. The information is presented in a succinct, standard format. Further details on any aspect can be obtained by referring back to the relevant sections of this report. Figure 8.1 illustrates the landscape of St. Martin's, Bryher and St. Agnes on air photographs.

Fig. 8.1 Landscape Types, illustrated on aerial photographs
Source : CAU flight 1987.

ST MARTINS

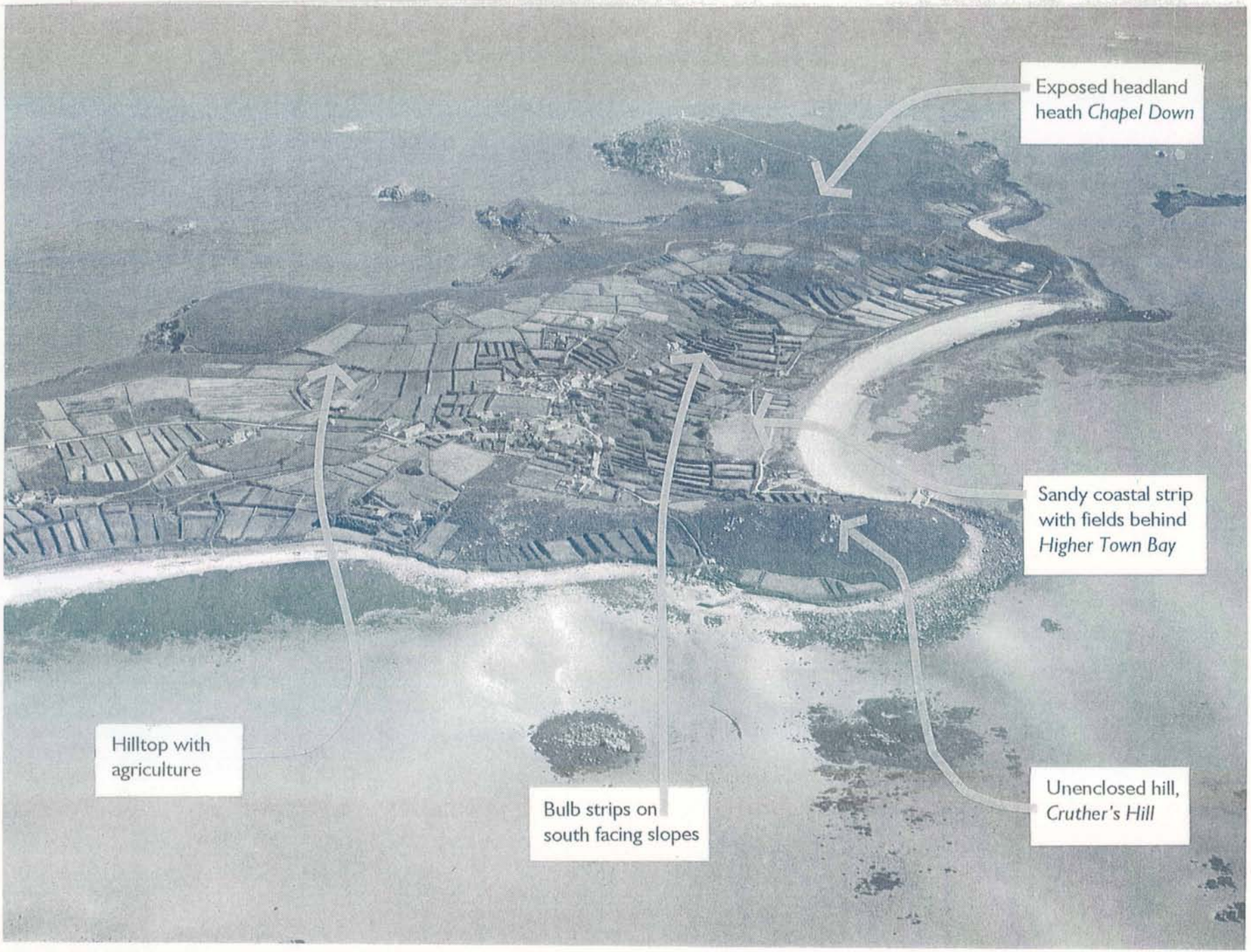


Fig. 8.1 continued

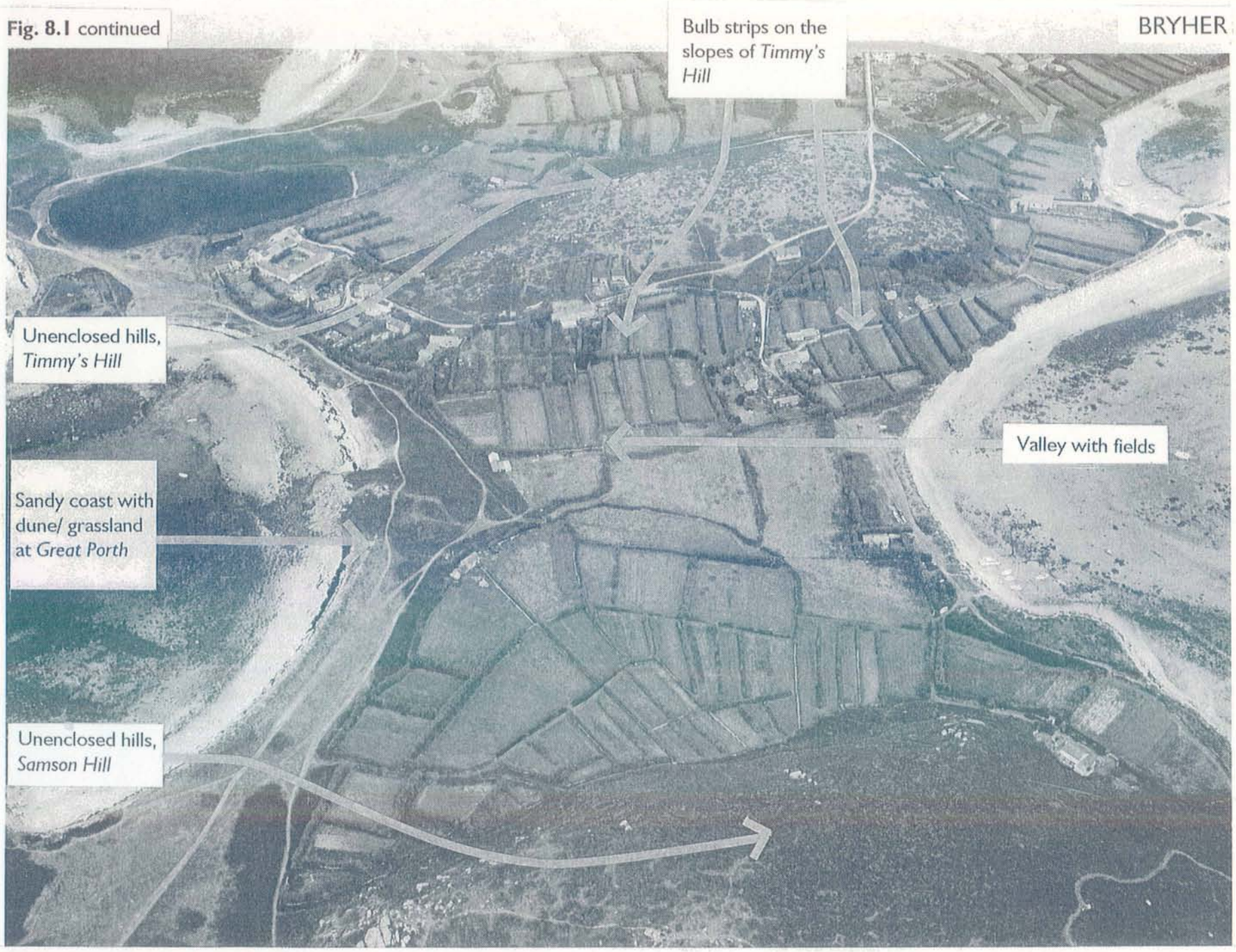
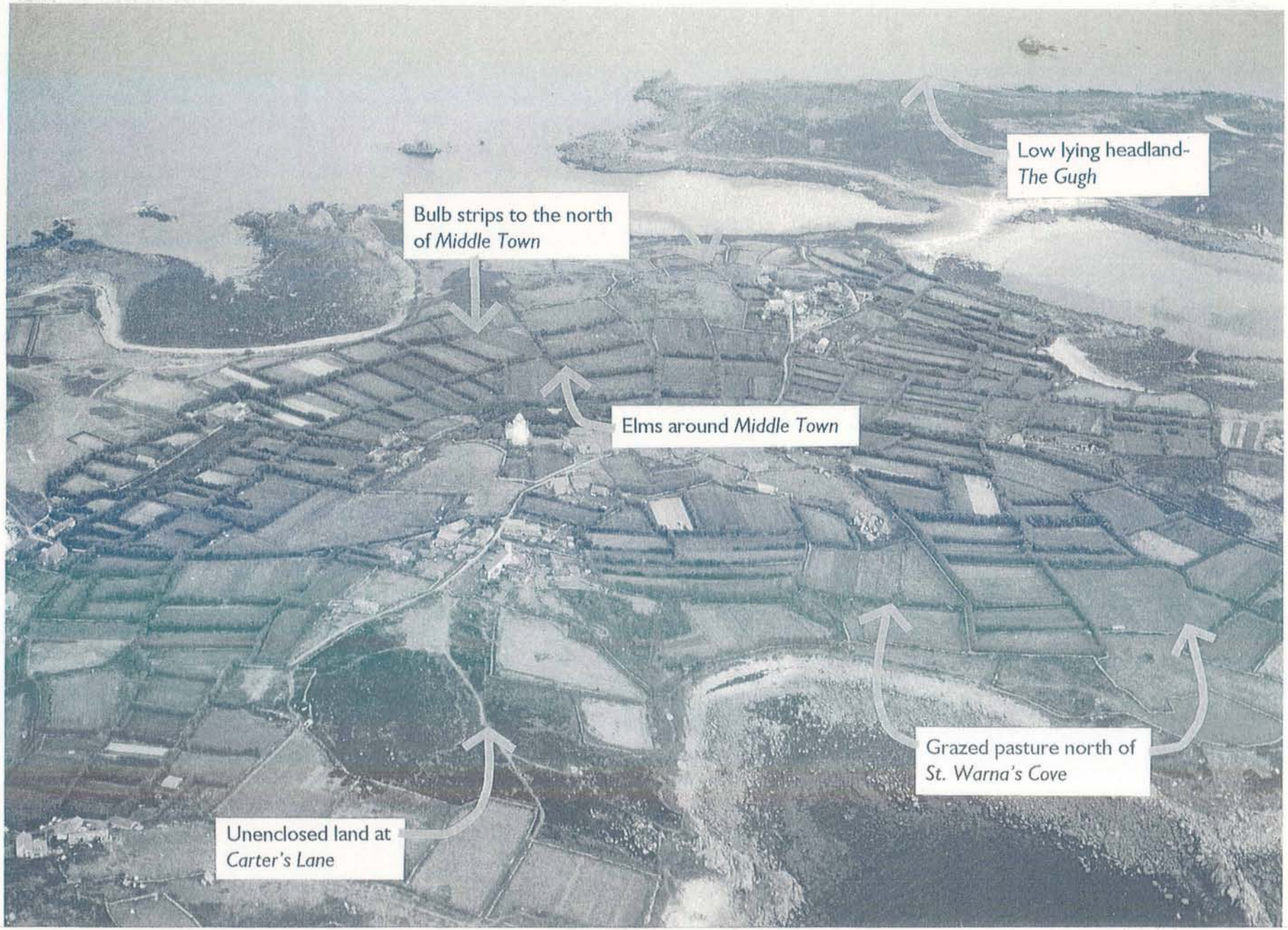
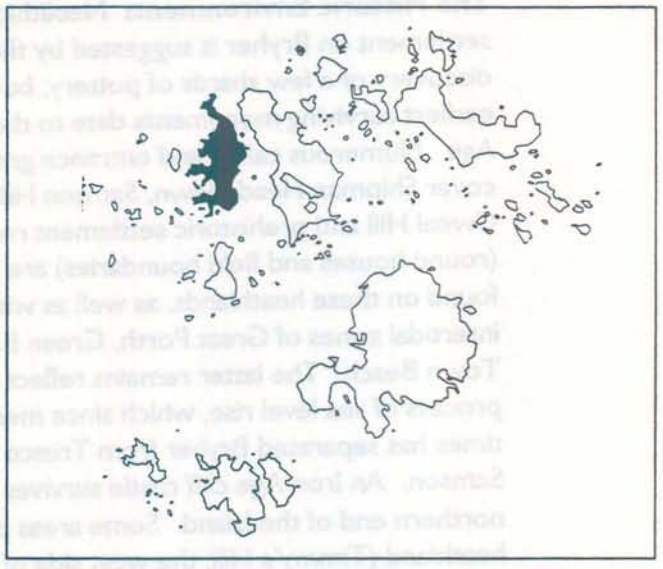


Fig. 8.1 continued



BRYHER

Location:	North-west corner of the inhabited islands
Area:	126 ha
Length of Coastline:	8.5 km
Land leased to Environmental Trust:	84.2 ha



Topography: Bryher has a more varied topography than any of the other islands and indeed, the place name '*Bre-yer*' means 'place of the hills'. The island is essentially composed of a series of small rounded granite hills (Watch, Timmy's, Gweal , Heathy and Samson Hill), which rise to heights of between 33m and 42m above the intervening valley pastures which run west-east across the island. The exposed headland heath of Shipman Head Down with its wind pruned vegetation of maritime grassland and waved heath extends to the north of the island.

The wilder northern and western sides of the island are open and exposed to the Atlantic while the east coast is sheltered and separated from Tresco by narrow sandy flats.

Geology: Granite with weathered head material clothing the lower slopes and valley floors providing a suitable soil for cultivation and pasture. On the western side of the island blown sand creates a low-lying area of sand dunes and dune pasture between Hell Bay Hotel and Great Rushy Bay. This is otherwise a harsh, rocky granite coastline.

Landscape Types (Ref. Ch. 7.0)

- Exposed headland heaths
- Unenclosed hills
- Sandy coast with dune and grassland
- Valley and hillslopes with bulb strips
- Valley and hillslopes with fields.

SSSIs (Ref. Ch. 3.0)

Rushy Bay and Heathy Hill	12.2ha
Pool of Bryher and Popplestone Bank	5.9ha
Shipman Head Down	40.7ha
Total Area	**58.8ha***

* includes marine areas

The Historic Environment: Neolithic settlement on Bryher is suggested by the recent discovery of a few shards of pottery, but the earliest surviving monuments date to the Bronze Age. Numerous cairns and entrance graves cover Shipman Head Down, Samson Hill and Gweal Hill and prehistoric settlement remains (round houses and field boundaries) are also found on these heathlands, as well as within the intertidal zones of Great Porth, Green Bay and Town Beach. The latter remains reflect the process of sea level rise, which since medieval times has separated Bryher from Tresco and Samson. An Iron Age cliff castle survives at the northern end of the Island. Some areas of heathland (Timmy's Hill, the west side of Shipman Head and much of Watch Hill) appear never to have been enclosed for farming, though gorse clearance and more detailed survey of these areas may reveal as yet unknown remains. Documentary and artefactual evidence indicates that medieval settlement on Bryher was focused on present day Norrard and South'ard, and possibly also on the east side of The Town - all three settlements lying on the more sheltered, eastern side of the island.

Historic Landscape Types (Ref. Ch. 4.0)

On the basis of field pattern the enclosed land of Bryher divides into the following historic landscape types:

Anciently enclosed land	40%
Late post Medieval	5%
Bulb strips	50%
Modern	5%

Refer to Appendix E for details of the historic character of the enclosed land on the island.

Summary

Bryher is an island of contrasts, with a varied topography of rounded hills and sheltered valleys, a rugged north and west aspect open to the full force of the Atlantic and protected sandy east coast. The tiny bulb strips with their neat euonymus and pittosporum shelter hedges, which run in parallel lines on the sheltered slopes of the inland hills have a very high visual impact. On Bryher the small scale 'domestic' landscape of the bulb strips contrasts greatly with the rugged north and western coasts with their wind pruned heathland and the gorse covered inland hills. A further contrast, within the enclosed landscape, is provided by the lateral valleys with green pastures and small irregular fields enclosed by stone wall boundaries.

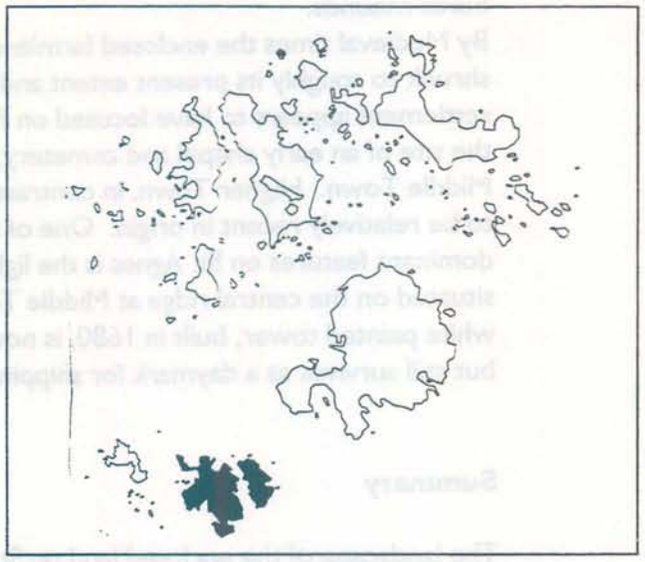
ST. AGNES

Location: Most south-westerly of the inhabited islands.

Area: 148 ha

Length of Coastline: 7 km

Land leased to Environmental Trust: 42.37 ha



Topography: Physically similar in character to the uninhabited western islands - small, round and relatively flat with a rocky coastline. Reaching a maximum height of just above 25m in the centre of the island. Attached to the island of Gugh by The Bar, a sandy tombolo which is uncovered at low tide.

Geology: Central granite ridge with granite edges and headlands. Weathered head material on the hillslopes, with areas of blown sand in low-lying areas in the central parts of the Gugh and Wingletang Down and the north part of the island at Big Pool. On Wingletang Down the granite outcrops, which rise above the heather have been weathered into distinctive tors.

Landscape Types (Ref. Ch. 7.0)

- Low-lying southern headlands
- Rocky coast with heathland
- Sandy coast with dune and grassland
- Valley and hillslopes with bulb strips
- Valley and hillslopes with fields.

SSSIs (Ref. Ch. 3.0)

Big Pool & Browarth Point	10.1ha
Wingletang Down	28.9ha
Gugh	37.7ha
Total Area	**76.7ha***

* includes marine areas

The Historic Environment: Pottery evidence suggests that St. Agnes may have been settled since Neolithic times. By the beginning of the Bronze Age the rising sea level had already separated it from the main island comprising St. Mary's, Bryher, Tresco and St. Martin's. Remains of prehistoric and Romano-British houses have been identified at Porth Killier, in fields north of Higher Town, east of Barnaby Lane, and on the lower slopes of Kittern Hill (Gugh), while relict prehistoric field systems are recorded in heathland areas - apart from Wingletang Down and the southern end of Gugh which appear to have never been enclosed as farmland. Both

these areas are covered in numerous Bronze Age burial mounds.

By Medieval times the enclosed farmland had shrunk to roughly its present extent and settlement appears to have focused on Periglis, the site of an early chapel and cemetery, and Middle Town. Higher Town, in contrast, appears to be relatively recent in origin. One of the most dominant features on St. Agnes is the lighthouse, situated on the central ridge at Middle Town - its white painted tower, built in 1680, is now disused but still survives as a daymark for shipping.

Historic Landscape Types (Ref. Ch. 4.0)

On the basis of field pattern the enclosed land of St. Agnes divides into the following historic landscape types:

Anciently enclosed land	40%
Late post Medieval	15%
Bulb strips	40%
Modern	5%

Refer to Appendix E for details of the agricultural enclosure of the island.

Summary

The landscape of the enclosed land on St. Agnes essentially comprises an intimate mixture of hedged bulb strips on the hillslopes, with intervening areas of grass, pasture fields bordered by stone walls. Fingers of rough ground of gorse and bracken extend up the hillslopes, linking the settlements on the central ridge with the unenclosed heathlands at the edges of the islands.

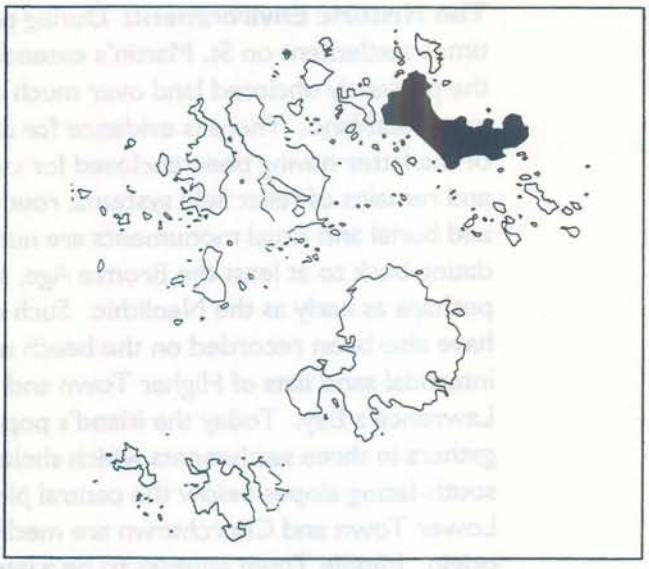
St. Agnes lacks the differences in topography found, for example, on Bryher or St. Martin's. However, there are more subtle variations which give the island a distinctive and special character. Of particular note, on the enclosed land, are the shelter hedges which include a wide range of species with tamarisk, euonymus, veronica, pittosporum creating the bulb strips and wind stunted elm lining the narrow lanes and around the settlements. In some areas the hedges give the island an almost wooded appearance, particularly when viewed from the lower slopes towards the coastal edges of the island.

Location: North - east corner of the inhabited islands.

Area: 222 ha

Length of Coastline: 10.5 km

Land leased to Environmental Trust: 115.20 ha



Topography: The island comprises a long ridge of granite which forms a central spine running east - west along the centre of the island at about 30-40m. To the north of the ridge an exposed windswept plateau takes the full brunt of the Atlantic weather, while to the north-east the heath covered granite headland of Chapel Down juts out into the Atlantic. To the south of the central spine the land slopes gently down in a series of bowls and hollows to the low-lying sandy fields fronting the calm interior sea.

Geology: Blown sand cloaks much of the central granite ridge creating the bracken covered area known as the Plains. On the edges of the island the sand accumulates in the sheltered bays at St. Martin's Bay on the north coast (sheltered by White Island) and at Higher Town Bay and the Neck of the Pool on the south coast. These long white sandy bays are one of St. Martin's outstanding features. Head material is restricted to the south facing hillslopes below Higher Town and Lower Town and a small area on the hilltop plateau behind Higher Town. St. Martin's also includes an area of gravel which overlies part of the granite headland at Chapel Down.

Landscape Types (Ref. Ch. 7.0)

- Exposed headland heaths
- Rocky coast with heathland
- Sandy coast with dune and grassland
- Sandy coastal strip with fields
- Unenclosed hills
- Valley and hillslope with bulb strips
- Valley and hillslope with fields

SSSIs (Ref. Ch. 3.0)

Chapel Down	34.9 ha
Plains and Great Bay	15.0 ha
Porth Seal	1.05 ha
Total Area	**50.95 ha***

* includes marine areas

The Historic Environment: During prehistoric times settlement on St. Martin's extended beyond the presently enclosed land over much of what is now heathland. There is evidence for at least half of the latter having been enclosed for cultivation, and remains of relict field systems, round houses, and burial and ritual monuments are numerous dating back to at least the Bronze Age, and perhaps as early as the Neolithic. Such remains have also been recorded on the beach and intertidal sand flats of Higher Town and Lawrence's Bay. Today the island's population gathers in three settlements which shelter on the south-facing slopes below the central plateau. Lower Town and Churchtown are medieval in origin. Middle Town appears to be a later settlement, but may have been in existence by the time of the Civil War (mid-17th century)

Historic Landscape Types (Ref. Ch. 4.0)

On the basis of field pattern the enclosed land of St. Martin's divides into the following historic landscape types:

Anciently enclosed land	15%
Late post Medieval	5%
Bulb strips	60%
Modern	20%

Refer to Appendix E for details of the historic character of the enclosed land on the island.

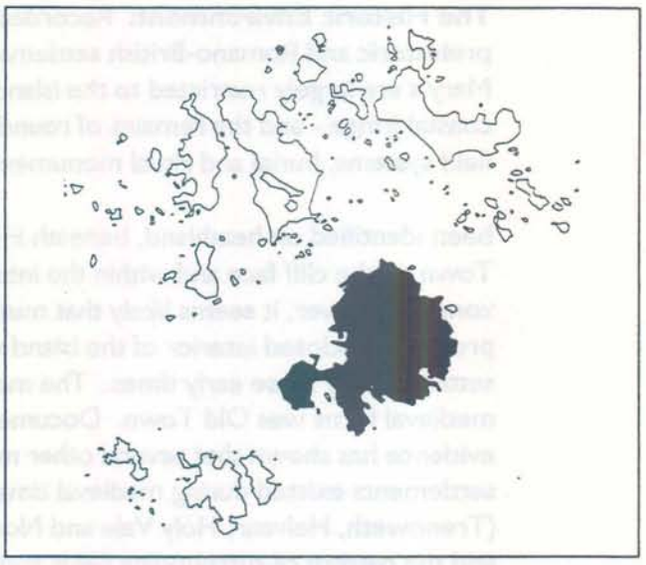
Summary

The sheltered south facing slopes on St. Martin's provide some of the best land for cultivation and have been divided into narrow plots by shelterhedges of euonymus, escallonia, pittosporum and fuchsia which sweep down the long slopes of the hillsides in parallel lines towards the sea. The pattern, definition and order of the distinctive landscape has been blurred in recent years by the losses of hedges to frost, decline in maintenance and the regeneration of individual bushes within abandoned, bracken choked fields. Most of the bulb strips were formed by the subdivision of anciently enclosed land and as the bulb strip landscape has begun to loose focus and definition the pattern of these earlier field systems is once again discernible. The field pattern on the hilltop has similarly been obscured with many fields becoming filled with gorse, following the decline in grazing.

On St. Martin's land currently in agricultural use is confined to a few areas. Elsewhere much of the land is reverting to a wilder, unmanaged landscape.

ST. MARY'S

Location:	Centre of the inhabited islands
Area:	629 ha
Length of Coastline:	17 km
Land leased to Environmental Trust:	155.80 ha



Topography: St. Mary's is the largest of the islands approximately 4.0km by 2.8km. It is a relatively flat island without dramatic features. Rising from a low rocky coastline the interior of the island is gently undulating and includes the rounded plateau hills at Halangy Down, the golf course and the airport, narrow wooded valleys at Watermills and Holy Vale, and the wider low-lying areas of Higher Moors and Lower Moors. The only freshwater stream on the Islands rises at Holy Vale and flows through Higher Moor to the sea at Path Hellick. In the interior of St. Mary's is more isolated from the extreme influence of the sea compared to some of the off-islands.

Geology: St. Mary's is almost entirely granite, with small areas of blown sand accumulating at the Bar, Porth Hellick, Old Town Bay and the coast around St. Mary's Pool creating small sandy bays in an otherwise rocky coastline. The fortified headland of the Garrison is linked to the rest of St. Mary's by a sandy 'neck' at Hugh Town. Head material is restricted to a few areas in the centre of the island around Higher Moors and along the east coast. The low-lying areas of Higher Moors and Lower Moors rest on deposits of alluvium.

Landscape Types (Ref. Ch. 7.0)

- Exposed headland heaths
- Fortified headlands
- Sandy coast with dune and grassland
- Valleys with pools and marsh
- Undulating agricultural interior.

SSSIs (Ref. Ch. 3.0)

Peninnis Head	12.2 ha
Lower Moors	10.2 ha
Higher Moors and Porth Hellick Pool	16.2 ha
Total Area	**29.6 ha***

* includes marine areas

The Historic Environment: Recorded prehistoric and Romano-British settlements on St. Mary's are largely restricted to the islands present coastal fringe - and the remains of round houses, field systems, burial and ritual monuments have been identified on heathland, beneath Hugh Town, in the cliff face and within the intertidal zone. However, it seems likely that much of the presently enclosed interior of the island was also settled during these early times. The main medieval focus was Old Town. Documentary evidence has shown that several other modern settlements existed during medieval times (Trenoweth, Helvear, Holy Vale and Normandy) and the pattern of surrounding fields and connecting lanes suggests that this may be true of many other present day settlements on St. Mary's. A notable exception is Hugh Town, which developed during the 17th century after the construction of Star Castle.

Historic Landscape Types (Ref. Ch. 4.0)

On the basis of field pattern the enclosed land of St. Mary's divides into the following historic landscape types:

Anciently enclosed land	70%
Late post Medieval	15%
Bulb strips	10%
Modern	5%

Refer to Appendix E for details of the historic character of the enclosed land on the island.

Summary

The heathy coastline of St. Mary's with its small strips of enclosed fields is somewhat similar in character to the smaller off islands. In contrast the agricultural interior of the island is different in character and more homogenous than the agricultural land found on the off-islands. It is more isolated from the extreme influence of the sea and individual fields are larger in area. Another difference relates to the presence of trees which are a prominent feature of St. Mary's. They include the Monterey Pine shelter belts originally planted in the mid nineteenth century along the north and east coats and in blocks around the centre of the island, the Garrison and Peninnis Head and a large number of elms originally planted as hedges but now grown out to create lines on wind-stunted trees along field boundaries and 'avenues' enclosing the narrow winding lanes. In this respect, St. Mary's has the appearance of a wooded landscape. Modern development such as the radio masts at Halangy Down, the airport and new building are very visible intrusions in the small scale agricultural landscape of St. Mary's.

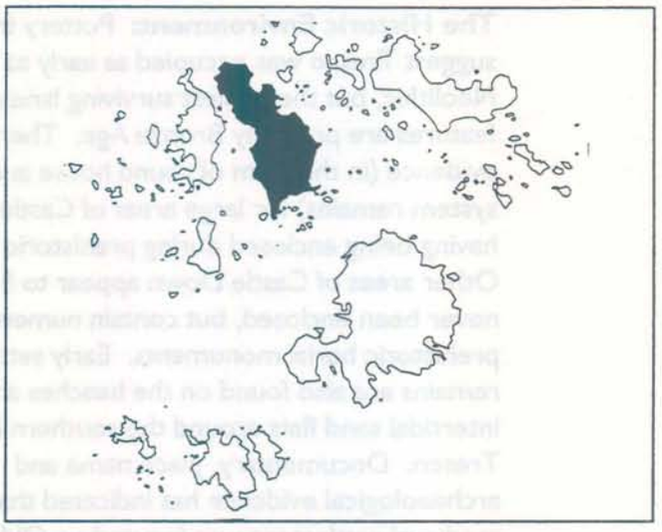
TRESCO

Location: Northerly, sheltered by Bryher to the west and St. Martin's to the east

Area: 297 ha

Length of Coastline: 10.1 km

Land leased to Environmental Trust: None



Topography: Tresco essentially comprises three low rounded hills separated by broad valleys. In the north Castle Down rises to a height of 44m and forms an exposed headland. In the centre of the island Middle Down forms a wide hill, rising to a height of just over 30m, while the smaller Abbey Hill lies to the south. The granite hills are separated by gentle valleys - the settlements of Old Grimsby, Dolphin Town and new Grimsby lie within the sheltered valley between Castle Down and Middle Down, while the broad lateral valley containing the Great Pool divides Middle Down from Abbey Hill. The subtropical Tresco Abbey Gardens shelter in the lee of Abbey Hill. The southern part of the island between Appletree Bay and Pentle Bay comprises a flat low-lying area of blown sand.

Landscape Types (Ref. Ch. 7.0)

- Exposed headland heaths
- Sandy coast with dune and grassland
- Rocky coast with heathland
- Unenclosed hills
- Hills with woodland
- Valleys with pools and marsh
- Valley and hillslope with bulbstrips
- Valley and hillslope with fields

Geology: Three upstanding granite hills, the southernmost of which, Abbey Hill, is formed by the fine grained inner granite. Weathered head material clothes the slopes of Middle Down and Abbey Hill and provides a fertile soil which is mostly in agricultural cultivation. The blown sand which forms the flat low-lying southern part of the island includes an extensive dune system. There are veins of tin present in the granite of Castle Down - giving rise to the legend that Scilly once formed the westerly tin islands 'Cassiterides' of the Phoenicians.

SSSIs (Ref. Ch. 3.0)

Pentle Bay, Merrick & Round Islands	42.79ha
Great Pool	17.0 ha
Castle Down	58.1 ha
Total Area	**117.89ha***

* includes marine areas

The Historic Environment: Pottery fragments suggest Tresco was occupied as early as the Neolithic, but the earliest surviving landscape features are probably Bronze Age. There is evidence (in the form of round house and field system remains) for large areas of Castle Down having being enclosed during prehistoric times. Other areas of Castle Down appear to have never been enclosed, but contain numerous prehistoric burial monuments. Early settlement remains are also found on the beaches and intertidal sand flats around the southern half of Tresco. Documentary, place name and archaeological evidence has indicated that medieval settlement was focused on Old Grimsby, Borough Farm, around the 12th century Priory remains in Tresco Abbey Gardens and (in later medieval times) at New Grimsby.

The nineteenth century landscape reflects the influence of Augustus Smith and his nephew who began the rationalisation of field pattern, the planting of extensive shelterbelts on Castle Down, Middle Down and Abbey Hill and the planting of the subtropical gardens at Tresco Abbey.

Historic Landscape Types (Ref. Ch. 4.0)

On the basis of field pattern the enclosed land of Tresco divides into the following historic landscape types:

Anciently enclosed land	20%
Late post Medieval	20%
Bulb strips	40%
Modern	20%

Refer to Appendix E for details of the historic character of the enclosed land on the island.

Summary

On Tresco the underlying geology, resulting topography and landcover are interwoven and create a very distinctive landscape with the wild, heathy granite headland in the north giving way, first to the managed agricultural landscape in the central part of the island with small fields, shelterbelts and settlement, and then to the flat sandy coastal dune systems of the south.

Tresco's landscape also reflects the form of land tenure. The reforms introduced by Augustus Smith (and later by Thomas Algenon Dorrien-Smith) included the planting of extensive shelterbelts to reduce wind speeds and filter salt from the north easterly winds. Despite the ravages of the 1990 storm Tresco is still the most wooded island, with the hilltops and crest clothed with dense plantations which extend as narrow shelterbelts down the hillslope and fringe the agricultural land. When viewed from other island or the sea - the rising dark, wooded areas are visually prominent and appear to dominate much of the central part of Tresco.

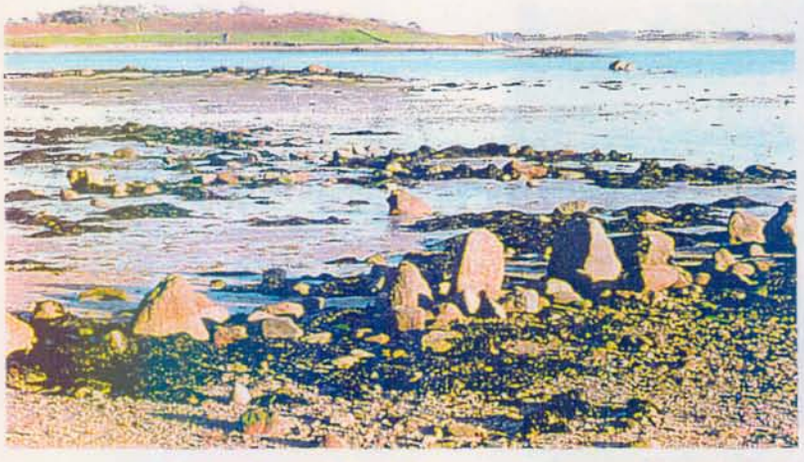
Today the whole island is leased under one tenancy to the Dorrien-Smith family. This gives the island a very distinctive character with its well managed farmland, maintained largely through income from tourism.

Fig. 8.2 Landscape Types (photographs)

Bryher: View north from Samson Hill. Hillslope Bulb Strips - with Timmy's Hill (Unenclosed Hill) in the background, and anciently enclosed fields in the valley.

Bryher, Shipman Head Down - Headland Heath.

Relict prehistoric field boundary on Headland Heath.



Flats between Tresco and Bryher. Sandy foreshore with submerged field boundaries.

The Gugh, abandoned bulb fields - known to have important populations of rare arable weeds.

Tresco from Bryher: Middle Down and Abbey Hill - Hills with Woodland.

St Agnes. Anciently enclosed fields in the foreground with bulb strips on the slopes below Middle Town.

St Martin's: Hilltop with Agriculture - abandoned fields on the hilltops.

St Martin's: Hillslopes with Bulb Strips - loss of form and pattern.

St Mary's: Undulating Agricultural Interior - larger fields with tree cover (overgrown Elm hedges and Pine shelterbeds).

St Mary's: Elm hedges grown out along lanes.

St Mary's: Lower Moor - Valley with Pools and Marsh.

PART 3:

THE MANAGEMENT STRATEGY

9.0 FORCES FOR CHANGE

This chapter summarises the main forces for change acting upon the Scillonian landscape. It covers in turn:

- The Horticultural Industry
- Livestock
- Farm Structure
- The Built Heritage
- Tourism
- The Unenclosed Land

9.1 **The Horticultural Industry.** The areas of enclosed land were expanded this century as flower production boomed, but have declined slightly in recent years. The landscape of these areas is widely influenced by farming and there can be expected to be changes in the future. There remains a future for flower production in the Islands, and the industry needs the opportunity to expand and develop to retain its place on the world market:

- those farms which continue in commercial flower production are likely to continue to intensify the use of land, and to retain hedges in good condition. Intensification will undoubtedly lead to further losses to the Islands flora, particularly rare arable weeds;

- however, there is unlikely to be a significant reversal of the general decline in this form of farming (due to world-wide competition) and more areas will be abandoned or farmed less intensively. This is likely to happen on St Agnes and St Mary's last. Abandonment/neglect will similarly lead to losses of flora as well as having a visual/landscape impact;

- with this decline in farming fortunes, there is likely to be a deterioration in the upkeep of the important network of shelter hedges which may hasten the decline in flower production on neighbouring land which experiences increased wind exposure as a result (as well as resulting in a much more open landscape);

- some land is highly marginal for the production of horticultural crops or flowers, and such land is likely to continue to come out of such use as the area of cropped land declines;

- nevertheless, some land of good quality is not farmed to its potential at present. There remains a future for flower production in Scilly, and such land is likely to become increasingly important for the sustenance of the industry as a whole. Farm amalgamation to enable some farms to expand and thrive, may be necessary;

- the retention of the strategic shelter belts on St Mary's is expected to be necessary for the foreseeable future.

9.2 **Livestock.** There are areas of enclosed grassland which have been abandoned or are mown but not farmed. A small amount of grazing continues. There has not been widespread keeping of livestock this century, and various pressures have reduced the infrastructure for such enterprises with the closure of the abattoir and the dairy. Amongst the changes:

- there is unlikely to be a significant upturn nation-wide in the fortunes of the livestock sector, and the added pressures of an island location will prejudice the viability of such enterprises;
- constraints such as a lack of slaughtering facility, and transport to the mainland being only possible between April and October, will further hamper the expansion of this sector;
- the small field size and the extent of high-upkeep walls may further affect expansion;
- the limited size of the Islands will tend to support only a very small number of such enterprises even if they could be commercially introduced;
- further reduction in management by grazing/haycropping will result in fields becoming choked with bracken/gorse - leading to damage to boundaries; loss of field pattern and damage to historic surface features surviving in the fields, as well as having a negative landscape/visual impact;
- there nevertheless exists a degree of willpower amongst the Duchy of Cornwall and the tenants for the reintroduction of commercial herds and flocks.

9.3 **Farm Structure.** There will be a need for changes in the future if the agricultural success of the Islands, which is paramount to the landscape, is to be given opportunity:

- there will be a need for farm amalgamation and the redistribution of the better land to those remaining in productive flower/horticultural enterprises;
- there will be a need for existing shelter networks to be managed and retained and new shelter networks to be planted;
- there can be expected to be fewer, larger farm holdings in the future;
- there is a need to encourage the reintroduction of livestock.
- proposals for farm amalgamation may result in an increasingly mechanised farming which will undoubtedly have an adverse effect on the environment and archaeological remains.

9.4 **The Built Heritage:** Scilly's remaining traditional farm buildings make a very important contribution to the agricultural landscape as well as providing evidence of the social and

agrarian history of Scilly. Forces for change relating to the built heritage include the following:

- traditional granite barns with their small openings and low headroom are not suited to modern agricultural requirements and some are now neglected or redundant. The standard timber buildings which are beginning to replace these traditional granite buildings while necessary for efficient farming may not always be sympathetic to the small-scale Scillonian landscape;

- in the past, where buildings have been repaired the quality of repair is not always considered to be appropriate to the character of the building, for example original slate roofs replaced with corrugated asbestos, or old roof timbers recycled from wreck wood replaced by metal struts. Remaining buildings are often neglected or derelict;

- where buildings are considered to have outlived their usefulness there is pressure to convert. The Local Plan acknowledges that it is preferable to re-use existing redundant buildings before constructing new ones. Residential conversion (either permanent homes or holiday lets) has, in the past, proved most popular but can be damaging to the original character of the building if not executed and maintained with great sensitivity;

- there is considerable scope to convert redundant buildings to an alternative economic use such as rural workshops. English Heritage acknowledges that such conversions can be executed with greater respect to the buildings character, when compared to residential re-use. A number of such schemes have been completed with grants form the Rural Development Commission. Such re-use can also help to broaden the economic base of the Islands;

- the majority of tenants are on full repairing and insuring leases making them responsible for the upkeep of the buildings. All farms are let on full Agricultural Tenancy Agreement providing security of tenure that can, in some cases, be 'handed down' for three generations. There is, however, a perception that there is a disincentive for the tenants to maintain those buildings not essential to their livelihoods. As an interim response the Duchy has provided materials for a number of tenants to assist them with their work of repair and maintenance;

- The Duchy have recently competed a full condition survey of all farm building. this survey evaluates each building and places it in one of three categories:

  1. Those with continued value for agricultural/horticultural purposes which should be kept in good repair;

  2. Those that are redundant to modern day agricultural/horticultural requirements which should be declared redundant but kept wind and watertight until an alternative use can be found;

3. Those that are redundant and do not have the potential for alternative re-use and should either be left to deteriorate as part of a former heritage or be repaired as small building features in the environment.

The strategy for the future use and management of the farm barns will provide a basis for attracting grant aid (e.g. under Objective 5b status).

9.5 **Tourism:** Tourism is the dominant economic sector on the Islands. Inappropriate tourism will act as a force for change and have a continuing impact on the landscape:

- It will not only increase pressures on sensitive landscapes, wildlife habitats and archaeological features, but may also exert pressures and further conversion of buildings to holiday lets as well as new development. 'Green Tourism' will have an increasingly important role to play in the future;
- Over reliance by farmers on a supplementary income from tourism, has, and will continue to lead to neglect of agricultural land, and its reversion to bracken and bramble and gorse. This deterioration in the landscape and the impact that it has on freedom of movement around the Islands - may in turn deter visitors. A vibrant and viable farming community is essential to maintain the landscape character and landscape quality that visitors and tourists appreciate.

9.6 **The unenclosed land:** The main forces for change relating to the unenclosed land are:

- loss of grazing and reversion of the heathland habitat to gorse scrub and bracken;
- erosion of footpaths and archaeological sites as a result of continuing recreational pressure;
- damage to archaeological sites through erosion (natural and recreation pressure) and growth of woody vegetation;
- threat of further inappropriate tree planting/scrub encroachment - impinging on sites of archaeological/ecological interest;
- coastal erosion/sand extraction.

9.7 Many of the issues relating to the unenclosed land are being addressed by the Environmental Trust, particularly through management implemented on the SSSIs as part of the Reserves Enhancement Scheme (RES). However, it is important to note that the RES scheme is specifically aimed at conserving and enhancing wildlife interest. There is, therefore, a great opportunity to integrate the management of the natural and historic environment.

In summary:

9.8 Agricultural land use, along with the Island's history and physical characteristics, has been critical in shaping the Islands' landscape. Now, with the Islands agriculture at a cross-roads there is a need to seek methods to retain and enhance key landscape

characteristics which are under threat. This is reflected in the Island-wide management objectives listed in the following chapter.

10.0 ISLAND-WIDE MANAGEMENT OBJECTIVES

10.1 The overall aim for management of the Scillonian landscape is:

- to maintain and enhance the quality of the Scillonian landscape and to maintain the contrast and distinction between the enclosed agricultural landscape and the open wilderness of the unenclosed land.

ENCLOSED LAND

10.2 For the enclosed land of the inhabited Islands the broad management objectives are:

- to conserve and enhance the characteristic landscapes of the bulb strips and fields that make up the enclosed farmland;
- to reinforce local features to maintain the small scale pattern and grain in the landscape;
- to conserve and enhance the habitats of the enclosed farmland, with particular reference to species of birds and wild flowers characteristic of Scilly;
- to conserve and enhance (and where appropriate repair and restore) historic features of the enclosed landscape, such as the field boundaries, historic features within existing fields and the traditional agricultural buildings;
- to maintain and restore the shelterbelts and woodlands, where this does not conflict with other management objectives;
- to maintain existing levels of public access.

UNENCLOSED LAND

10.3 The broad management objectives of the Environmental Trust in relation to the unenclosed land are:

- to conserve for the benefit of the public, terrestrial and marine wildlife and their habitats, and the landscape and archaeological and historical remains of the Isles of Scilly;
- to further public education about terrestrial and marine wildlife, their habitats, the landscape, and archaeological and historical remains of the Isles of Scilly;
- to promote and co-ordinate research, information and interpretative services for the public relating to terrestrial and marine wildlife and their habitat, the landscape, archaeological and historical remains of the Isles of Scilly.

10.4 Specific management objectives for each of the main habitats found on Scilly are set out in detail in the Environmental Management prepared for the Trust by CEAS Wye College (1989). Archaeological management recommendations by general locality are contained in the Management Plan prepared by Cornwall Archaeological Unit (1989).

11.0 INTRODUCTION TO THE MANAGEMENT STRATEGY

11.1 The following chapters (Chapter 12-16) present the management strategy for each of the landscape types, found within the enclosed agricultural land, on an island by island basis. Recommendation for management of the unenclosed land (Chapter 17), public access (Chapter 18) and the built heritage (Chapter 19) are provided separately at the end of this section.

11.2 This introductory chapter explains the rationale for the strategy, its layout and presentation.

PRESENTATION

Text

11.3 For each Island the management strategy for the enclosed land is presented for each constituent landscape type. This takes the form of a brief summary description of the landscape type and the specific issues and threats acting as forces for change. This description relates back to the issues highlighted in the description of landscape types (Chapter 7.0). Based on these a series of key management objectives are identified. The following management strategy outlines the means of achieving these objectives.

11.4 The management strategy is necessarily broadly based, to allow tenants flexibility in managing the land. For example, in many cases grazing is the ideal management tool, but in the light of the constraints outlined in chapter 5.0, the desired effect could equally be achieved by hay cutting or grass topping.

11.5 The strategy for each landscape type concludes with a table setting out the key capital items and management measures to be implemented as part of any future Countryside Stewardship Scheme. Detail on the specific requirements of each of these is given in the final chapter of this section - Management Guidelines (Chapter 20).

Plans

11.6 For each of the inhabited islands two plan have been prepared, critical area plans and management areas.

11.7 ***Critical Area Plans:*** This plan contains the baseline information on which the strategy is based. For each island it identifies the following areas:

(i) Field systems identified as being of prehistoric origin, and/or containing historic surface features;

(ii) Fields known to support important populations of arable weeds and other wildflowers.

11.8 It is important to note here that at this stage these plans are **provisional** and are based on limited field surveys conducted to date, as part of this project and other research. Full archaeological and ecological surveys will be required to draw up definitive plans. As they stand, the plans, along with the information contained in the landscape assessment (Chapters 7 & 8), provide the framework on which to base the management strategy.

11.9 ***Management Area Plans:*** The second set of plans sets out the 'Management Areas' for each Island. In some cases the management areas correspond with the landscape types, in other cases they are subdivisions of the landscape types. For example on Bryher the bulb strips within the valley are identified as land which could potentially be restored and managed as grass pasture, while on the bulb strips on the hillslopes the strategy seeks to restore and manage the shelter hedges which create this distinctive landscape. In other cases they represent amalgamations of the landscape types.

11.10 For the off-islands eight management areas with common management aims have been identified. Two additional management areas have been identified for St. Mary's. These are described in Table 11.1. An estimate of the total area of each is given.

Table 11.1: Enclosed Land Management Areas

No.	Area Type	Management Aims
1.	Hillslope Bulb Strips 40 ha	• Restore and manage shelter hedges; • Maintain stone wall boundaries; • Maintain and enhance arable weed flora.
2.	Fields/Pasture 100 ha	• Maintain present field pattern and historic features within fields; • Repair and maintain stone wall boundaries; • Manage by grazing or cutting to enhance grassland habitat.
3.	Valley Land in Recent Cultivation (Bryher only) 10 -20 ha	• Recreate permanent grassland and manage to enhance grassland habitat; • Repair and maintain stone wall boundaries.
4.	Sandy Fields 16 ha	• Cultivate to maintain and enhance arable weed flora; • Restore and manage shelter hedges, where appropriate; • Maintain stone wall boundaries.
5.	Cultivated Land and Other Bulb Strips 50 ha	• Maintain and enhance arable weed flora and other wild flowers; • Maintain stone wall boundaries.

6.	Anciently Enclosed Land on Hill Crest (St. Martin's, only) 10 ha	• Maintain present field pattern and historic features within fields; • Repair and maintain stone wall boundaries; • Clear gorse and manage by cutting or grazing.
7.	Hilltop: Other Fields (St. Martin's, only) 20 ha	• Maintain present field pattern, stone wall boundaries and historic features within fields; • Manage by grazing if appropriate.
8.	Marginal Land 30 ha	• Option to manage as heathland; • Retain existing boundaries.

On St. Mary's there are two management areas:
A: Enclosed Farmland 320 ha
B: Moors 45 ha

IMPLEMENTATION OF THE MANAGEMENT STRATEGY

11.11 The Management Strategy is intended to provide a tool to assist future estate management as part of the Countryside Stewardship Scheme. It is envisaged that Stewardship Agreements will be drawn up for individual tenants/ or groups of tenants on each island. The Case Studies presented in Part 4 of this report illustrate how the recommendations contained in the management strategy can be translated into a full Countryside Stewardship Application.

12.0 BRYHER: ENCLOSED LAND

LANDSCAPE TYPE: VALLEY AND HILLSLOPES WITH BULB STRIPS

12.1 On Bryher the bulb strips laid out on the hillslopes of Watch Hill and Timmy's Hill, with their neat euonymus and pittosporum hedges have a very strong visual impact. Most of the bulb strips have been created from subdivisions of anciently enclosed land. These earlier boundaries which are frequently obscured by the shelter hedges include drystone and stone faced stone walls. As the flower industry has declined the bulb field landscape has also begun to loose its definition, with the deterioration and loss of the hedges. Many of the larger tamarisk-hedged bulb fields within the valley are now under grass.

12.2 The bulb fields along the eastern and southern edge of the island are on 'head' material and are known to contain interesting populations of wildflowers and arable weeds. Although the range of species is, perhaps, less than can be found on the other islands.

Management Objectives

- to restore and enhance the unique landscape of the hillslope bulb strips, by repairing and maintaining the shelter hedges and stone wall boundaries;
- to encourage some bulb fields on the valley floor to convert to permanent grassland;
- to retain the hedges as shelter, nesting site and food source for birds.

Management Strategy

12.3 *Hillslope bulb strips (Area 1):* The essential management requirement for this area is to repair and manage the shelter hedges of the bulb strips located on the hillslopes. As well as being the key component of the bulb strip landscape the hedges are important for providing shelter for existing cropped areas, in maintaining flexibility for areas to be returned to horticultural use if appropriate, and providing winter food and a nesting site for birds. On Bryher there are fewer hedges to be replaced as compared for example to St. Martin's. Existing hedges, however, need to continue to be managed according to traditional methods in order to retain their characteristic form and appearance and provide shelter. Surviving stone wall boundaries lying below or alongside the shelter hedges should be retained.

12.4 From the point of view of landscape the bulb plots themselves can be put to any appropriate agricultural use, for example bulbs, market garden crops, grass keep or fallow. On fields that are not in active agricultural or horticultural use herbicides, insecticides, fungicides etc. should not, generally, be applied. For fields in agricultural/horticultural use cleaning of fields should only be undertaken when essential and an unsprayed margin of at least 1m should be retained on both sides of the hedge.

Annual cultivation of the margin will provide suitable conditions for rare arable weeds to flourish.

12.5 *Valley land in recent cultivation (Area 3):* For the larger bulb fields within the valleys it will be appropriate to encourage conversion back to permanent grassland with management by grazing or hay cutting, to encourage the development of a more diverse species rich grass sward. This would be particularly appropriate for the larger, damp fields at the western end of the valleys. The retention of boundary hedges in these areas may be required for shelter purposes although it is not an objective of the Countryside Stewardship scheme. Stone wall boundaries should also be repaired and maintained in these areas.

12.6 *Marginal land (Area 8):* For the abandoned bulb fields to the south of Samson Hill it may be appropriate to encourage reversion back to rough ground/heathland and manage as part of the unenclosed land. Existing field boundaries should be retained.

Summary of Management Actions: Bryher - Valley and Hillslope with Bulb Strips

- *Key features* (see Figure 12.1)

- *Key management areas* (see Figure 12.2)
  1. Hillslope bulb strips
  3. Valley land in recent cultivation
  8. Marginal land

Proposed Management	Code	Priority	Management Area
Capital Items			
Field boundary (wall) repair	Wd/Br	1	3
Shelter hedge planting	Hp	1	1
Management measures			
Management of shelter hedges	He	1	1
Management for arable weeds - (field margins)	Aw2	1	1
Re-creating grassland on cultivated land	Gs	2	3
Managing grassland - hay meadows, or	H1	2	3
Managing grassland - grazed pasture	P1	2	3

LANDSCAPE TYPE: VALLEY AND HILLSLOPES WITH FIELDS

12.7 On Bryher this is a very distinctive landscape which occurs within the three broad lateral valleys which run west east across the island. Here, the small pastures fields with their stone wall boundaries create a distinctive landscape.

12.8 These fields are almost all considered to be anciently enclosed. Fields in the northernmost valley, below Shipman Head Down are prehistoric in origin and contemporary with the relict system on the Down itself. Within the other two valleys the fields are considered to be of medieval age or later. The boundaries within all areas are predominantly dry stone wall and stone faced stone walls, with some lyncheting along boundaries. Within the southernmost block of anciently enclosed land, to the north of Samson Hill, the picture is more complex and harder to decipher. Boundaries include both drystone walls, stone-faced stone walls and stone-faced earth walls as well as hedges. In this southern area hedges form boundaries which on the basis of pattern appears to be ancient, suggesting that earlier stone boundaries may have been robbed out once the hedges had grown tall enough to provide shelter. A number of these fields are cultivated.

12.9 While most of the anciently enclosed fields on Bryher are still managed as pasture, it is apparent that any further reduction in grazing will lead to encroachment of gorse, bracken and bramble into the valleys. This has already occurred on some of the more marginal fields on the valley sides, for example, those lying just below Shipman Head Down.

12.10 Although most of these pastures are likely to have been improved for agriculture, some of the fields on the valley floor are poorly drained and therefore have the potential to support an interesting and diverse range of flora.

Management Objectives

- to repair stone wall boundaries and retain the existing field pattern;
- to manage fields by grazing or haycutting and, where possible, enhance the grassland habitat;
- to conserve and enhance historic features which survive within existing fields;
- to re-emphasise the traditional use of these fields for pasture by resisting conversion to horticulture and further subdivision by hedge planting, and to encourage the re-creation of permanent grassland in fields that have been used for bulbs/flower production in the recent past.

12.11 *Fields/pasture (Area 2)* The management strategy for this area is relatively straightforward and involves the repair and maintenance of field boundaries and management of the fields by either low intensity grazing or haycropping. This type of management will encourage the development of a more species-rich grassland, particularly within the damp fields on the valley bottoms. Sheep are potentially more acceptable than cattle as grazing livestock on Bryher and there may be an opportunity to extend the area which is currently grazed.

12.12 Where areas are to be grazed, strengthening of field boundaries will be required to make them stock proof. On Bryher, the very small field sizes may present practical difficulties for management by grazing and could for example result in historically important field boundaries being damaged by livestock. Very careful monitoring will, therefore, be required and walls should be repaired as and when required. In drawing up the Countryside Stewardship Application consideration should be given to enclosing a number of fields into one paddock by running a strand of barbed wire across the top of the walls. This area could then be managed, by leaving internal field gates open, as one paddock. Another practical option could involve the 'fencing-in' of the remaining cropped land. These options will be considered further as part of the case study (Chapter 22).

12.13 The field pattern is almost all anciently enclosed and therefore rationalisation of boundaries will not be acceptable.

12.14 Further planting of hedges or trees within anciently enclosed land should be restricted in order to maintain the distinction between the landscape of the bulb strips and these valley grasslands. New tree and hedge planting should be limited to those areas which have already been planted for shelter i.e. along the boundary walls at each end of the valleys - although this is not a priority for Stewardship funding. Hedges should be retained and replanted, if necessary, where the hedge or line of trees appears to be fossilising the line of an earlier stone boundary.

12.15 *Valley land in recent cultivation (Area 3):* Emphasis should be placed on maintaining these fields as grass pasture. Where fields have been cultivated for bulbs/flowers, and are no longer required, there may be an opportunity to re-create (species-rich) grassland and manage by grazing or hay cutting. This, however, is not a management priority and in the first instance Stewardship payments should concentrate on the management of the existing pasture. Any form of ground disturbance by ploughing or deep cultivations should be avoided in fields where prehistoric remains survive.

12.16 *Marginal land (Area 8):* For the abandoned fields around the edges of Samson Hill it may be appropriate to encourage reversion to rough ground/heathland and management as part of the unenclosed hill (by the Environmental Trust). Existing boundaries should be retained.

Summary of Management Actions: Bryher - Valley and Hillslope with Fields

- *Key features* (see Figure 12.1)

- *Key management areas* (see Figure 12.2)
  2. Fields/pasture
  3. Valley land in recent cultivation
  8. Marginal land

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	2,3,
Top wiring/fencing	Tw	1	2,3
Gorse/scrub control	Sb	1	2
Bracken control	Bm	1	2
Management measures			
Managing grassland - hay meadows,	H1	1	2,3
Managing grassland - grazed pasture	P1	1	2,3
Re-creating grassland on cultivated land	Gs	2	3

LANDSCAPE TYPE: UNENCLOSED HILLS

12.17 Samson Hill, Timmy's Hill and Watch Hill are leased to the Environmental Trust. They are not notified as SSSI's and do not form part of the RES scheme. They do therefore, have the potential to be managed under Countryside Stewardship. Management should, ideally, go hand in hand with the enclosed land, i.e. by light summer grazing using livestock which are grazing the enclosed land. Additional management to maintain footpath routes and restore archaeological sites may also be required. If grazing is introduced its impact on archaeological sites and effect on the vegetation should be monitored.

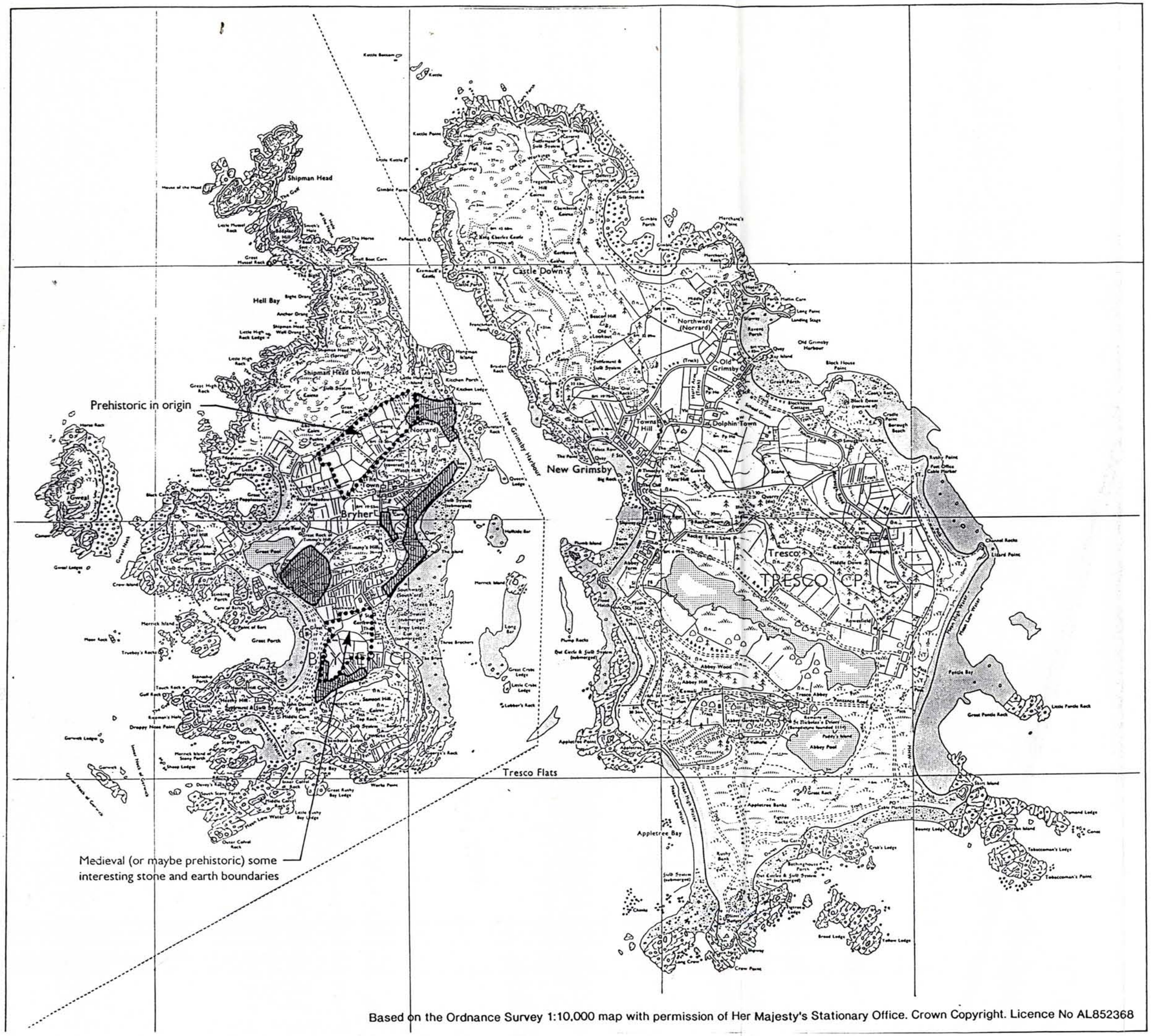


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Fig. 12.1
Bryher:
ENCLOSED LAND
CRITICAL AREAS
(Provisional)

NOTE: These are provisional maps only and do not identify all areas of interest. Full archaeological and ecological surveys will be required to draw up definitive maps.

Field systems identified as being of prehistoric origin, and/or containing historic surface features

Fields known to support important populations of arable weeds and other wildflowers

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Fig. 12.2
Bryher:
ENCLOSED LAND MANAGEMENT AREAS

1 **Hillslope Bulb Strips:**
Restore and manage shelter hedges. Maintain stone wall boundaries. Maintain and enhance arable weed flora.

2 **Fields/Pasture:**
Maintain present field pattern and historic features within fields. Repair and maintain stone wall boundaries. Manage by grazing or cutting to enhance grassland habitat.

3 **Valley Land in Recent Cultivation:**
Re-create permanent grassland and manage to enhance grassland habitat (by grazing/hay cutting). Repair and maintain stone wall boundaries.

8 **Marginal Land:**
Option to manage as heathland. Retain existing boundaries

0 500m 1km

NORTH

13.0 ST. AGNES: ENCLOSED LAND

LANDSCAPE TYPE: VALLEY AND HILLSLOPES WITH BULB STRIPS

13.1 On St. Agnes, intensive flower production is still an important part of the farm economy and this is reflected in the well maintained landscape of the bulb strips which dominates the more sheltered, central parts of the island. Virtually all the bulb strips are subdivisions of anciently enclosed land, which accounts for the combination of drystone wall and hedge boundaries.

13.2 The shelter hedges include a wide variety of species, which although generally planted as single species blocks combine over a larger area to create a subtle patchwork reflecting the different colours and textures of the individual species. The patchwork of hedges is particularly impressive in the area north of Middle Town which includes both tamarisk, pittosporum, and euonymus, with a fringe of older elm hedges along the lanes surrounding the settlement. The bulb strips on St. Agnes have been laid out on very gentle slopes and here, it is the variety and diversity of hedge species that is most distinctive, rather than the larger areas of uniform, parallel hedged plots found on the steeper slopes of Bryher and St. Martin's. On St. Agnes the hedges give the central part of the island an almost wooded appearance, when viewed from the lower slopes.

13.3 So long as the farms on St. Agnes remain in intensive flower production there is no threat to the bulb strip landscape, although, once areas come out of flower production the landscape can very rapidly change. This can be seen, for example, in a small area to the south and south-west of Higher Town where hedges have been lost resulting in a more open landscape.

13.4 A number of fields on St. Agnes are known to be particularly good for wildflowers and arable weeds, these include the fields at Troy Town Farm, Lower Town Farm, those around the Island Hall and fields between Higher Town and the Bar. The Cornish mallow (*Lavatera cretica*), a Red Data Book species, survives here only in unsprayed field margins.

Management Objectives

- to restore and enhance the unique landscape of the hillslope bulb strips, by repairing and maintaining the shelter hedges and stone wall boundaries;
- to conserve and enhance the population of wildflowers, rare arable weeds and naturalised bulbs.
- retain the hedges as shelter, nesting site and food source for birds.

Management Strategy

13.5 *Hillslope bulb strips (Area 1):* The bulb strip landscape on St. Agnes should be maintained in its present form. The variety and diversity of hedges should be retained and further

losses of shelter hedges should be resisted. On St. Agnes a whole range of species is present including a large number of early elm and tamarisk hedges - and therefore it is considered that widescale replanting with a very limited palette of species such as olearia or pittosporum would detract from the character of the landscape. Existing stone wall boundaries within the bulb strips should be retained.

13.6 The intensive nature of the flower industry on St. Agnes means that it is particularly important here, to encourage the management of field margins to conserve and enhance the population of native wildflowers and arable weeds. This will involve creating herbicide free strips along the base of each hedge, and annual cultivation as part of normal maintenance of the rest of the field. In the future if, for any reason, a large number of fields on St. Agnes come out of cultivation or are abandoned (as has happened on St. Martin's), it will be important to manage selected fields specifically to conserve their wildflower flora, for example by annual cultivation.

Summary of Management Actions: St. Agnes - Valley and Hillslope with Bulb Strips

- *Key features* (see Figure 13.1)
- *Key management areas* (see Figure 13.2)
  1. Hillslope bulb strips

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	1
Shelter hedge planting	Hp	3	1
Management measures			
Management of shelter hedges	He	1	1
Management for arable weeds - (field margins)	Aw2	1	1

LANDSCAPE TYPE: VALLEY AND HILLSLOPES WITH FIELDS

13.7 On St. Agnes these grazed pastures, enclosed by stone walls, adjoin the unenclosed land and extend up the hillslope among the bulb fields towards the settlements in the centre of the island. The field pattern includes both anciently enclosed land and late post-medieval enclosures. The anciently enclosed land is almost totally confined to the edges of the presently enclosed land. The blocks of land, north of Higher Town and bordering on Wingletang Down and a smaller area on Castella Downs appear to be prehistoric in origin and characteristically include lynchets along some existing stone wall boundaries and lynchets and banks within fields, together with the remains of prehistoric houses and cairns. Late post-medieval enclosures with their more rectilinear field patterns occur

around the Downs and west of Middle Town, north of Higher Town and west of Carter's Lane. Boundaries of the late post-medieval fields include hedges and post and wire fencing as well as stone walls.

13.8 With the reduction in grazing livestock some of these fields have become dominated by bracken and gorse. A number of fields are known to be of nature conservation interest, for example, one bracken-dominated field supports the small adder's tongue fern (*Ophioglossum azoricum*).

Management Objectives

- to manage fields by grazing or hay cutting and, where possible, to enhance the grassland habitat;
- to repair stone wall boundaries and retain the existing field pattern;
- to conserve and enhance prehistoric features which survive within fields.

Management Strategy

13.9 *Fields/pasture (Area 2):* The proposed management for this area involves the repair and maintenance of field boundaries and management of the grassland by either low intensity grazing or haycropping. Given the intimate mixture of bulb strips and grass fields on St. Agnes, sheep are generally not acceptable as grazing livestock, although there may be an opportunity to increase the number of cattle on the island.

13.10 Where areas are to be grazed, strengthening of field boundaries will be required to make them stockproof. Fencing options are as for Bryher (para. 12.12). Rationalisation of stone walls, almost all of which are of historic interest, is not acceptable. Monitoring of all stone wall boundaries will be required to ensure that the re-introduction of livestock does not cause damage. Boundaries should be repaired and maintained as required.

13.11 Several fields will require initial clearance of bracken or gorse before management by grazing or hay cutting can be implemented. Any form of ground disturbance by ploughing or deep cultivations should be avoided in fields where prehistoric remains survive.

Summary of Management Actions: St. Agnes - Valley and Hillslope with Fields

- *Key features* (see Figure 13.1)
- *Key management areas* (see Figure 13.2)
  2. Fields/Pasture

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	2
Top wiring/fencing	Tw	1	2
Gorse/scrub control	Sb	1	2
Bracken control	Bm	1	2
Management measures			
Managing grassland - hay meadows, or	H1	1	2
Managing grassland - grazed pasture	P1	1	2

LANDSCAPE TYPE: LOW LYING HEADLANDS

13.12 The Gugh (apart from 1 residential lease) is leased to the Environmental Trust and managed under the RES Scheme. It also includes an area of enclosed land located on the strip of blown sand which runs across the centre of the island. These bulb strips, are considered to be of relatively recent origin (1930's). They are now abandoned and filled with bracken and gorse and surrounded by overgrown hedges of veronica, pittosporum, euonymus and coprosma. The sandy fields on the Gugh are known to be exceptionally rich in wildflowers including rare arable weeds and heathland species.

Management Objectives

- to conserve and enhance the population of wildflowers, including rare arable weeds and heathland species.

Management Strategy

13.13 *Sandy Fields (Area 4):* These sandy fields support such an important range of species that they merit special management measures. It is recommended that the coarse grasses, bracken and gorse are cleared and that the fields are cultivated once a year (or at least every 2 years) to allow the less vigorous species to flourish.

Summary of Management Actions: St. Agnes - Low Lying Headland

- *Key features* (see Figure 13.1)
- *Key management areas* (see Figure 13.2)
  4. Sandy Fields

Proposed Management	Code	Priority	Management Area
Capital items			
Gorse/scrub control	Sb	I	4
Bracken control	Bm	I	4
Management measures			
Management for arable weeds - (abandoned fields)	Aw1	I	4

ST. AGNES: MARGINAL AREAS

13.14 *Marginal land (Area 8):* Within the enclosed land on St. Agnes (i.e. land not leased to the Environmental Trust) there is an area along Carters Lane which has never been enclosed. It is recommended that this area of gorse scrub is managed as part of the surrounding heathland of Castella Downs. Similarly a small area just to the west of Barnaby Lane has reverted to heathland/gorse scrub. It is recommended that this is managed as part of Wingletang Down.

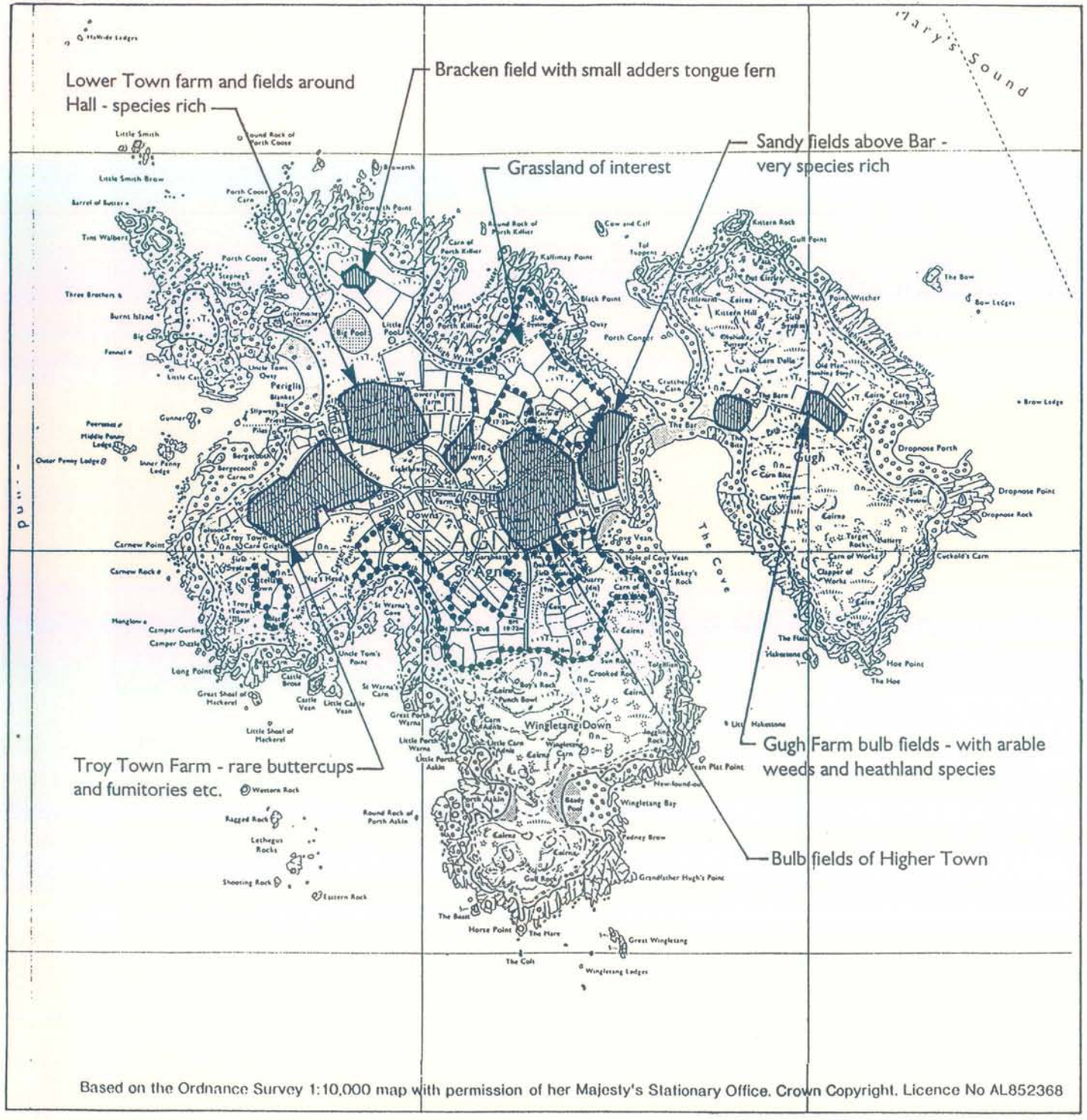


Fig. 13.1
St Agnes:
ENCLOSED LAND
CRITICAL AREAS
(Provisional)

NOTE: These are provisional maps only and do not identify all areas of interest. Full archaeological and ecological surveys will be required to draw up definitive maps.

Field systems identified as being of prehistoric origin, and/or containing historic surface features

Fields known to support important populations of arable weeds and other wildflowers

0 500m 1km

NORTH

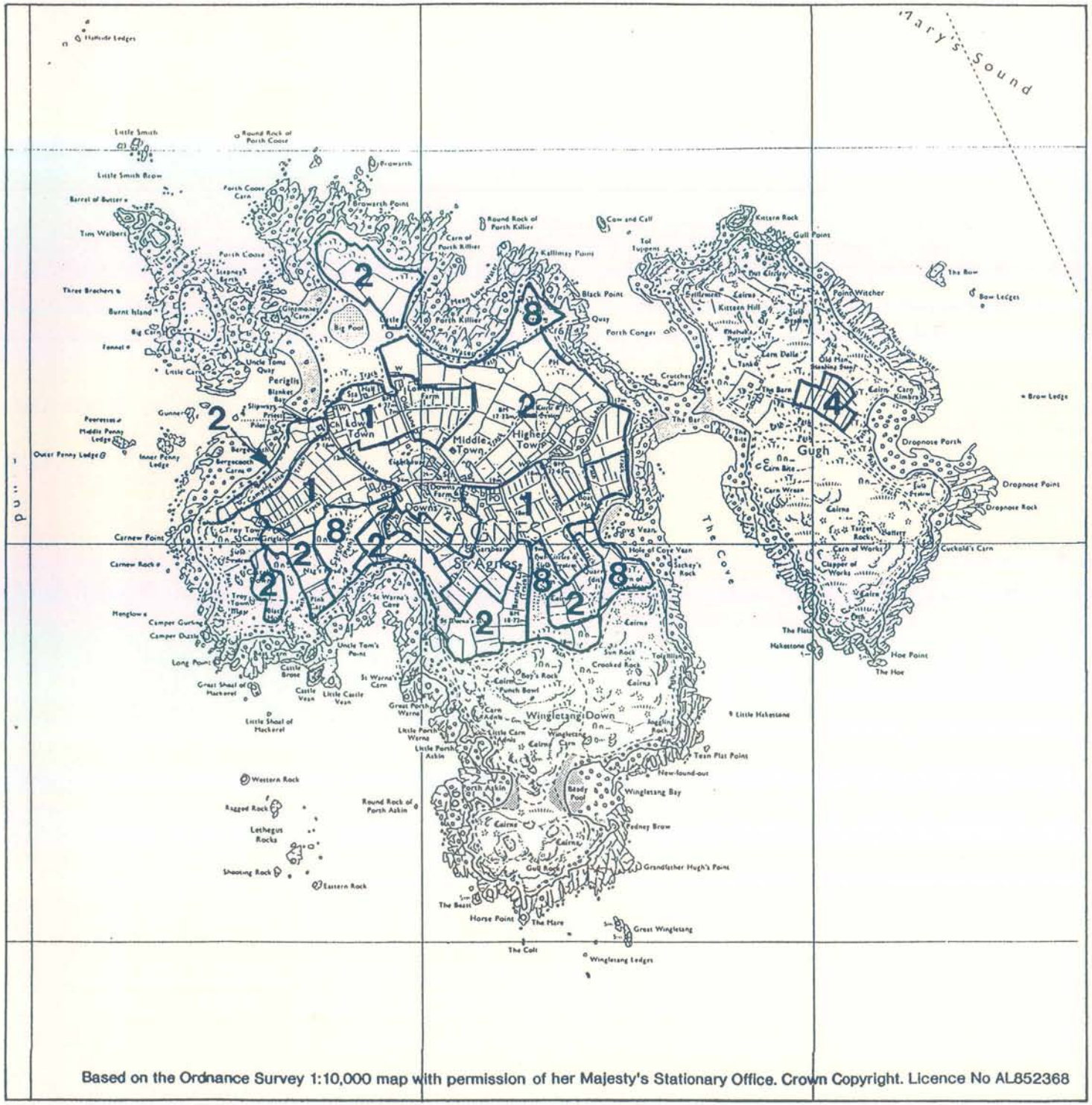


Fig. 13.2
St Agnes:
ENCLOSED LAND MANAGEMENT AREAS

1 Hillslope Bulb Strips:
Restore and manage shelter hedges. Maintain stone wall boundaries. Mainatin and enhance arable weed flora.

2 Fields/Pasture:
Maintain present field pattern and historic features within fields. Repair and maintain stone wall boundaries. Manage by grazing or cutting to enhance grasslad habitat.

4 Sandy Fields:
Cultivate to maintain and enhance arable weed flora

8 Marginal Land:
Option to manage as heathland. Retain existing boundaries.

0 500m 1km

NORTH

14.0 ST. MARTIN'S

LANDSCAPE TYPE: SANDY COASTAL STRIP WITH FIELDS

14.1 The low-lying, sandy bulb strips which lie along the south coast of St. Martin's have a distinctive and rich native arable weed flora and also support rare heathland species. These include Red Data Book species such as Orange birdsfoot (*Ornithopus pinnatus*) and Shepherds Needle (*Scandix pecten-veneris*), and other species such as Weasel Snout (*Misopates orontium*). Many of these fields are no longer managed for flower production, some are abandoned and some are kept as grass ley. Many of the shelter hedges originally planted for bulb production have not been replaced, exposing the stone walls of an earlier field system. The fields do, however, still conform to the distinctive bulb strip pattern with parallel strips and some more recent rectangular fields

Management Objectives

- to conserve and enhance the rare arable weed flora and heathland species;
- to restore and repair the hedges and drystone walls of the distinctive bulb strip landscape.

Management Strategy

14.2 *Sandy Fields (Area 4):* The primary objective for this area is to conserve and enhance the unique flora of rare arable weed and heathland species. This will require annual or biennial cultivation of the soil in the abandoned fields and avoidance of the use of herbicides, pesticides, insecticides, fungicides etc. on the land. Within fields that have been abandoned for more than two years, initial work will be required to clear encroaching bracken and coarse grasses.

14.3 Wherever possible management should also seek to reinstate the distinctive bulb field landscape with managed hedges sweeping down from the hills to the sea. The repair and maintenance of the hedges will not only conserve the bulb field landscape but should also help provide shelter for any areas remaining in cultivation as well as providing flexibility for any future horticultural use. New hedge plants should be established without the use of herbicides i.e. pre-planting herbicide sprays should not be applied and a weed free base should be maintained during the establishment period by the use of mulch mats as opposed to herbicide. If hedges are not replaced particular attention should be made to the repair and maintenance of the drystone wall boundaries.

14.4 For those fields which remain in agricultural/horticultural use, 'cleaning' of the fields should only be undertaken when essential. Ideally, a field margin of at least 1m width from the base of each side of the field boundary should be maintained without the use of herbicides etc. The boundary should be cultivated annually as part of normal agricultural operations.

Summary of Management Actions: St. Martin's - Sandy Coastal Strip with Fields

- *Key features* (see Figure 14.1)
- *Key management areas* (see Figure 14.2)
  4. Sandy Fields

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	4
Shelter hedge planting	Hp	2	4
Shelter hedge - arable weed supplement	Hp+	2	4
Bracken control	Bm	1	4
Management measures			
Management of shelter hedges	He	2	4
Management for arable weeds - (abandoned fields)	Aw1	1	4
Management for arable weeds - (field margins)	Aw2	1	4

LANDSCAPE TYPE: VALLEY AND HILLSLOPE WITH BULB STRIPS

14.5 On St. Martin's the bulb strips on the south facing hillslopes have a strong visual impact, with their neat, parallel hedges sweeping down the hill to the sea. However the pattern, definition and order of the bulb strip landscape has been blurred by the loss of hedges in the 1987 frost, decline in maintenance and the regeneration of individual bushes within abandoned fields. With the loss of hedges the original drystone wall boundaries of the anciently enclosed land, the earlier field pattern, are now visible. Some of these fields contain good populations of arable weeds and other wildflowers, although they are not as important as the sandy fields along the coast.

Management Objectives

- to restore and enhance the unique landscape of the hillslope bulb strips, by repairing and maintaining the shelter hedges and stone wall boundaries;
- to enhance the populations of rare arable weeds and other wildflowers.
- to retain hedges as shelter, nesting site and food source for birds.

Management Strategy

14.6 *Hillslope bulb strips (Area 1):* The key management requirement for this area is to repair the hedges and restore the unique landscape of the hillslope bulb fields. The hedges are also important for providing shelter for existing cropped areas and in maintaining flexibility for these areas to be returned to horticultural use (if appropriate) as well as providing winter food and a nesting site for birds. The aim should be to replant hedges along, or the existing marginal boundaries rather than new subdivision of fields.

14.7 The distinctive bulb strip landscape is derived by the uniform shape and form of the shelter hedges and once hedges have been re-established they should be managed accordingly. The earlier stone wall boundaries of the anciently enclosed land should be repaired and maintained.

14.8 In landscape terms the hillslope bulb fields have greatest effect when they cover a relatively extensive area - such as on St. Martin's where they cover the whole area across the hillslope behind Higher Town Bay. It is, therefore, recommended that the payment targets a large area for restoration and repair, rather than piecemeal restoration of individual hedges.

14.9 The fields themselves may be put to any agricultural use, as agreed with the Countryside Stewardship Facilitator, for example bulbs, market garden crops, fallow or grass. Fields that are not in agricultural use should not be abandoned and should be cultivated at least once every two years, herbicides etc. should not be applied. For fields in cultivation an unsprayed margin of at least 1m should generally be left to each side of the hedge base. The field margin should be cultivated annually as part of normal agricultural operations.

Summary of Management Actions: St. Martin's - Valley and Hillslope with Bulb Strips

- *Key features* (see Figure 14.1)
- *Key management areas* (see Figure 14.2)
  1. Hillslope Bulb Strips

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	1
Shelter hedge planting	Hp	1	1
Bracken control	Bm	1	1
Management measures			
Management of shelter hedges	He	1	1
Management for arable weeds - (field margins)	Aw2	1	1

Management for arable weeds - (abandoned fields)	Aw1	2	1

LANDSCAPE TYPE: VALLEY AND HILLSLOPES WITH FIELDS

14.10 On St. Martin's this landscape type refers to the fields on the south facing hillslopes which are not identified as bulb strips. They include anciently enclosed land and modern (twentieth century) enclosures. They also include some areas which have been managed as bulb strips, but with the loss of hedges have reverted back to their original field pattern.

14.11 Due to its fragmented nature this landscape type, on St. Martin's, is not perceived in the same way as for example the valley fields on Bryher. However, it is very distinct from the surrounding bulb fields, with enclosing stone wall boundaries and few/no hedges. The fields on the hillslopes are highly visible - unlike many of the fields on the hilltop.

Management Objectives

- to retain fields in low intensity agricultural management by grazing or haycutting, and where possible to enhance the grassland habitat;
- to repair and maintain stone wall boundaries and maintain the existing field pattern.

Management Strategy

14.12 *Fields/pasture (Area 2):* The management strategy for this area is relatively straightforward and involves the repair and maintenance of field boundaries and management of the fields by either low intensity grazing or haycropping. In those areas which are surrounded by bulb fields it is suggested that hay cropping may be more appropriate than grazing. Where areas are to be grazed, strengthening of field boundaries will be required to make them stock proof. This may involve top wiring of individual boundaries or blocks of fields or fencing (post and wire or electric) around the bulb fields to keep livestock out. Abandoned fields will require initial work, involving clearance of gorse and bracken before management by grazing or hay cutting can be implemented. In some cases it may be appropriate to re-create grassland following clearance of invasive scrub. Monitoring will be required to ensure that the re-introduction of livestock does not result in damage to boundaries. Stone wall boundaries should be repaired and maintained as required.

14.13 On the fields which were formerly managed as hedged bulb strips, it may be appropriate, in some cases, to reinstate hedges - although this is not a management priority. Further subdivision of fields which have never, in the past, had shelter hedges should not take place.

Summary of Management Actions: St. Martin's - Valley and Hillslope with Fields

- *Key features* (see Figure 14.1)
- *Key management areas* (see Figure 14.2)
  2. Fields/Pasture

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	1	2
Shelter hedge planting	Hp	3	2
Top wiring/fencing	Tw	2	2
Gorse/scrub control	Sb	2	2
Bracken control	Bm	2	2
Management measures			
Managing grassland - hay meadows, or	H1	1	2
Managing grassland -grazed pasture	P1	1	2
Re-creating grassland	Gs	2	2

LANDSCAPE TYPE: HILLTOP WITH AGRICULTURE

14.14 The plateau hilltop of St. Martin's has long been in agricultural use and includes field boundaries which are likely to be prehistoric in origin as well as late post-medieval and modern enclosures, and hedged bulb strips. The pattern varies from smaller more irregular shaped anciently enclosed fields, to medium sized and larger straight sided late post-medieval and modern, as well as bulb strips. Field boundaries include drystone wall, stone-faced stone wall and occasional stone-faced earth wall constructions, some of which are considered to be of prehistoric origin. A number of early fields contain evidence of prehistoric field systems and settlement, while the remains of Bronze Age ritual or burial monuments are contained within some later enclosures.

14.15 Many of the fields on this exposed hill top plateau have been abandoned and only the central area north of Higher Town remains in intensive agricultural use, other fields along the hilltop are maintained as rough grazing. The abandoned fields are filled with gorse and bracken, which often overtops the boundary walls - so that over a large part of the plateau the pattern and structure of the agricultural landscape has disappeared. In some places the gorse has become so dense it is causing the collapse of the boundaries. Elsewhere the abandoned fields spill over the crest of the hilltop plateau and create a strong visual impression of neglect.

14.16 Overall, there has been a loss of character and diversity in the landscape with the abandonment of fields in some areas and the intensification farming in others, such as the

land between Pound lane and the Church, which has resulted in losses to the Islands' unique flora (e.g. St Martin's Buttercup).

Management Objectives

- to maintain the existing varied field pattern and stone wall boundaries;
- to manage selected fields by grazing or haycutting and, where possible, enhance the grassland habitat;
- to conserve and enhance historic features which survive within existing fields (e.g. settlements, fields systems, ritual and burial remains);
- to conserve and enhance populations of wildflowers, rare arable weed flora and naturalised bulbs.

Management Strategy

14.17 The management strategy for this area involves:

- the clearance of gorse and bracken from selected fields and re-introduction of management by grazing or haycropping;
- repair and maintenance of field boundaries, particularly those of anciently enclosed land;
- introduction of more environmentally sensitive methods in areas which are currently intensively farmed.

14.18 *Anciently enclosed land on the hillcrest (Area 6):* The main candidates for clearance of scrub (gorse) and the re-introduction of grazing/haycropping will be the anciently enclosed fields, particularly those along the crest of the hilltop to the east of Higher Town. These fields are considered to be of prehistoric origin and include boundaries which sit on top of lynchets as well as low banks and lynchets within the fields. The neglected anciently enclosed land between Middle and Lower Town (likely to be of medieval age) would also be suitable for the clearance of scrub and re-introduction of grazing/haycutting. monitoring should be undertaken to ensure that livestock do not damage the boundary walls. Stone boundaries should be maintained and repaired as required.

14.19 Within these fields extensive invasion by gorse is likely to have damaged boundary walls and, following clearance of vegetation, repairs may be needed. Once scrub has been removed it may also be desirable to sow a grassland mix. The aim should be to re-create grassland which has the potential to become more species-rich with natural invasion of wildflowers and appropriate management by grazing or hay cutting. Those fields that have been identified as being anciently enclosed should not be ploughed or deep cultivated. On more recently abandoned fields clearance of gorse will not be necessary although management may be required to break up the dense mat of coarse grass before grazing can be re-introduced.

14.20 *Hilltop - other fields (Area 7):* More recent enclosures, such as the post-medieval rectilinear field systems and twentieth century enclosures do not, currently, merit special management. Where they have been invaded by gorse there is no justification for clearance except on visual grounds. However, if livestock are successfully re-introduced to the island, these fields could be bought back into agricultural use, in which case it may be appropriate for Stewardship payments to be made to encourage low-intensity grazing. It is important that any work undertaken to prepare these fields for grazing is undertaken in line with the management recommendations in this report (i.e. conserving existing boundaries and avoiding disturbance to historic features within fields).

14.21 *Marginal land (Area 8):* It is recommended that recently (twentieth century) enclosed areas such as John Batty's Hill should ideally be managed as rough grazing as part of the adjacent rough ground/heathland of Chapel Down and Gun Hill.

14.22 If grazing management is re-introduced fencing, probably top wiring of stone wall boundaries, will be required to ensure that stock are kept away from the areas in cultivation.

14.23 *Cultivated land and other bulb strips (Area 5):* For areas which are currently in intensive agricultural management, for example the fields near the Church and north of Higher Town, it is suggested that Stewardship should aim to promote more environmentally sensitive methods of farming through payments to allow the creation of conservation headlands and field margins for wildflowers/arable weeds.

14.24 *Shelterbelts:* Further planting of shelterbelts along the northern edge of the agricultural plateau may be desirable to help shelter the agricultural land. Any proposals for further planting will need to be considered very carefully in terms impact on landscape and archaeology. The grant aiding of new planting will be the responsibility of the Forestry Authority

Summary of Management Actions: St. Martin's - Hilltop with Agriculture

- *Key features* (see Figure 14.1)

- *Key management areas* (see Figure 14.2)
  5. Cultivated land and other bulb strips
  6. Anciently enclosed land on hillcrest
  7. Hilltop: other fields
  8. Marginal land

Proposed Management	Code	Priority	Management Area
Capital items			
Gorse/scrub control	Sb	1	6(7)
Bracken control	Bm	1	6(7)
Field boundary (wall) repair	Wd/Br	1	6(7)
Top wiring/fencing	Tw	2	6(7)
Management measures			
Managing grassland - grazed pasture, or	P1	2	6(7)
Managing grassland - hay meadows	H1	1	6
Re-creating grassland	Gs	2	6(7)
Management for arable weeds (field margins)	Aw2	1	5

(7): Management only required if fields are brought back into a grazing regime.

LANDSCAPE TYPE: UNENCLOSED HILLS

14.25 On St. Martin's there are three areas of unenclosed land, namely; Cruther's Hill, the land around Carrion Rock and Yellow Rock Cairn which are not leased to the Environmental Trust. It is recommended that these area are managed as part of the adjacent unenclosed heathland. The abandoned fields along the southern edge of Cruther's Hill could also be part of this management unit. These areas are identified as management area 8. Marginal Land on Fig.14.2.

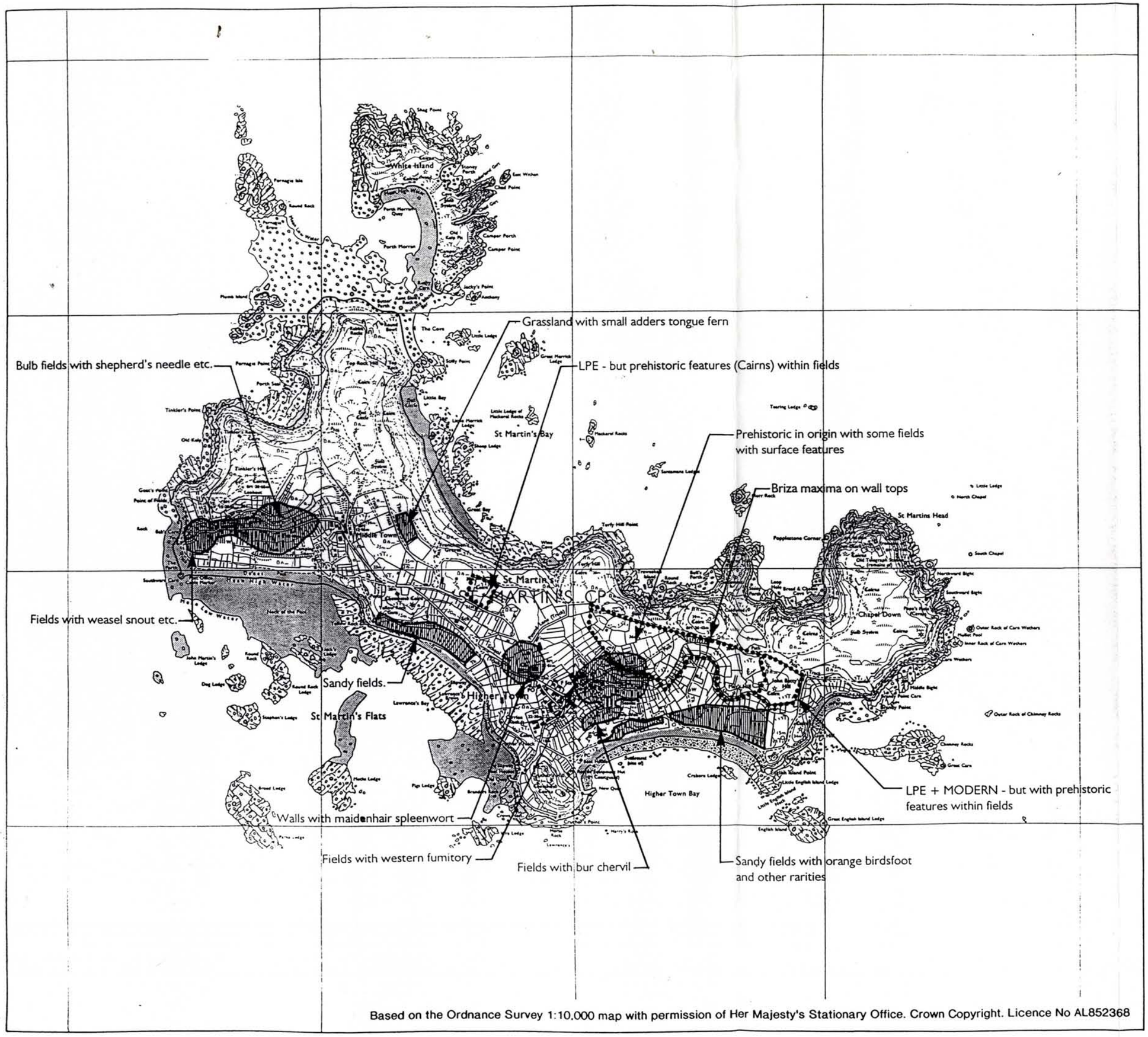


Fig. 14.1
St Martin's: ENCLOSED LAND CRITICAL AREAS (Provisional)

NOTE: These are provisional maps only and do not identify all areas of interest. Full archaeological and ecological surveys will be required to draw up definitive maps.

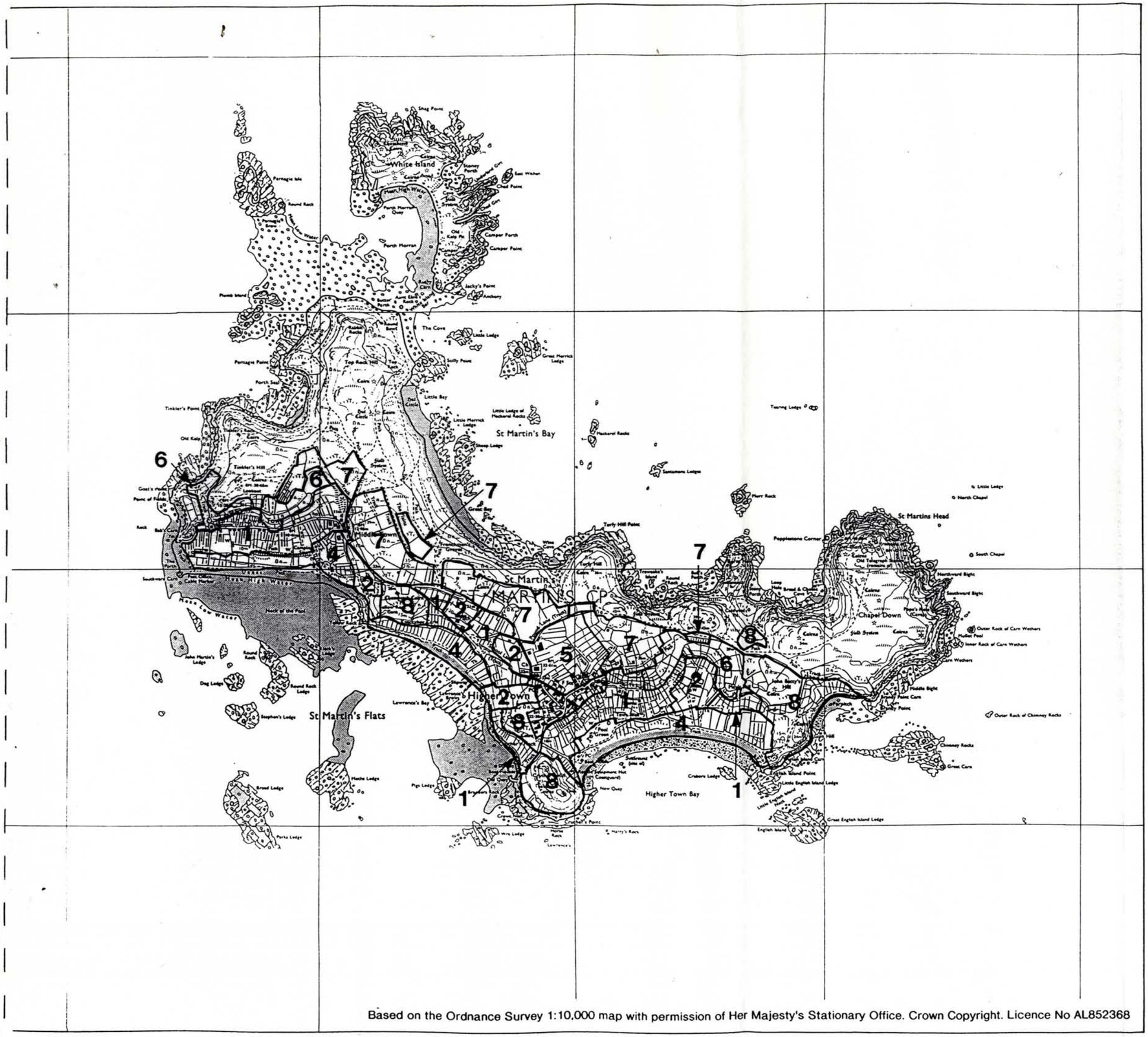
Field systems identified as being of prehistoric origin, and/or containing historic surface features

Fields known to support important populations of arable weeds and other wildflowers

0 500m 1km

NORTH

Fig. 14.2
St Martin's:
ENCLOSED LAND MANAGEMENT AREAS



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1 **Hillslope Bulb Strips:**
Restore and manage shelter hedges. Maintain stone wall boundaries. Maintain and enhance arable weed flora.

2 **Fields/Pasture:**
Maintain present field pattern and historic features within fields. Repair and maintain stone wall boundaries. Manage by grazing or cutting to enhance grassland habitat.

4 **Sandy Fields:**
Cultivate to maintain and enhance arable weed flora. Restore and manage shelter hedges. Maintain stone wall boundaries.

5 **Cultivated Land & Other Bulb Strips:**
Maintain and enhance arable weed flora and other wild flowers. Maintain stone wall boundaries.

6 **Anciently Enclosed Land on Hill Crest:**
Maintain present field pattern and historic features within fields. Repair and maintain stone wall boundaries. Clear gorse and manage by cutting or grazing.

7 **Hilltop: Other Fields**
Maintain present field pattern, stone wall boundaries and historic features within fields. Manage by grazing appropriate.

8 **Marginal Land:**
Option to mange as heathland. Retain existing boundaries.

0 500m 1km

NORTH

15.0 ST. MARY'S: ENCLOSED LAND

LANDSCAPE TYPE: UNDULATING AGRICULTURAL INTERIOR

15.1 The agricultural interior of St. Mary's is different in character to the landscape of the off-islands. It is more isolated from the extreme influence of the sea, individual fields are larger in area and there is a greater number of trees, both coniferous shelterbelts and elms - which gives parts of the island an almost wooded appearance. Compared to the other off islands St. Mary's has a much greater percentage of anciently enclosed land and fewer bulb strips. The landscape of St. Mary's is in danger of becoming even more homogenous as subtle differences in landscape character and field pattern are eroded, for example, by the loss of hedges within the traditional bulb strips and further subdivision and hedge planting of some of the anciently enclosed land, such as Peninnis Head.

Management Objectives

- to repair and maintain stone wall boundaries and retain the existing field pattern;
- to conserve and enhance historic features such as prehistoric field boundaries and lynchets that survive within fields;
- to restore and manage shelter hedges where appropriate - but to resist further hedge planting within other areas, i.e. those fields without existing shelter hedges;
- to repair and manage pine shelter belts - ensuring that new planting is sensitively designed and located;
- to restore Scilly's orchards and conserve a range of traditional fruit varieties;
- to conserve and enhance the population of wildflowers, rare arable weeds and naturalised bulbs;
- to conserve and enhance Scilly's native bird population;
- to re-introduce grazing, ideally to include grazing of the coastal fringe.

Management Strategy

15.2 *St. Mary's enclosed farmland (Area A):* The management strategy for the enclosed land of St. Mary's is aimed at maintaining pattern and diversity within the landscape. Recommendations are given below.

15.3 Bulb strips: Prior to the 1987 frosts small bulb strip with shelter hedges covered about 10% of enclosed land of St. Mary's. They were widely scattered in a large number of individual blocks throughout the interior of the island and on the coastal fringes. In order

to maintain diversity the small hedged bulb strips should be restored. To some extent the location of the hedged bulb strips on St. Mary's is not fixed and they could be re-created by further subdivision of other fields, allowing the former strips to revert back to their underlying field pattern. However, it has been noted that, in some cases, the field boundaries of the bulb strips are formed by hedges alone suggesting that the earlier stone wall may have been robbed out for use elsewhere. In these cases failure to replace hedges will result in a very open landscape. It is recommended that land which has never previously contained hedges should not, generally, be planted with new hedges either as subdivisions or along existing boundaries. This will retain the contrast between the open landscape of fields with stone wall boundaries and the more sheltered enclosed landscape of fields with hedges. The small hedged strips on the slopes of Peninnis Head (allotments) have a high visual impact and should be retained.

15.4 To summarise it is suggested that between 10% and 15% of the enclosed land of St. Mary's should be in the form of small hedged bulb strips. The hedges should be managed according to traditional (island) custom.

15.5 Shelterbelts: The coniferous shelterbelts on St. Mary's are strategically placed to provide maximum wind shelter. Many were originally planted in the mid-nineteenth century by Augustus Smith and today they are a characteristic feature of the St. Mary's landscape. However, the trees are, now in a very poor state of repair and provide relatively little wind shelter. The Forestry Authority has indicated that it is keen to support new planting through the Woodland Grant Scheme, and would consider amending the WGS to suit the very specific conditions of the island. For example, they would accept applications for shelterbelts narrower than 15m width.

A full survey of the condition of the existing shelterbelts was not undertaken as part of this study, however some general guidelines and the location of new planting are given here:

- Replanting should be limited to areas where there are existing windbreaks, namely:
  - Peninnis Head
  - The Garrison - see para 15.17)
  - East Coast (Salakee Down to Mount Todden Down)
  - North Coast (Pelistry Bay to Pendrathen)
  - The central part of St. Mary's (the Airport to Content)
- Replanting should, where possible, be undertaken on areas which formerly had trees, or on adjacent agricultural land. New trees should **not** be planted on unenclosed heathland, where trees may be a threat to both the natural ecology as well as impinging on archaeological sites.

- Recently planted trees that are known to threaten archaeological sites, e.g. Salakee Down should be removed.

- New planting should, generally, avoid areas identified as anciently enclosed land or those areas of agricultural land which have always been 'open' and never previously planted with trees or hedges..

- Small areas of additional new planting may be required to provide wind shelter by infilling gaps within existing windbreaks, for example along the road south of Content, or the area south of Town Lane to join up with the shelterbelt running towards Longstone.

15.6 Field corner plantings: On St. Mary's the larger field sizes means that it may be feasible to establish small scale plantings of trees and scrub in field corners and along field margins. Small copses of species such as oak, hazel, elm or sycamore - would provide an enhanced habitat for Scilly's native bird population. As a general rule it is recommended that new tree planting is not established on land that has not previously been planted with trees or hedges (to maintain a distinction between the 'open' landscape with fields and stone wall boundaries and the sheltered landscape with hedges). It is difficult to be specific about the extent of new tree planting that should be undertaken. The intention is not to create a 'wooded' landscape - a target for field corner plantings within say 10%-20% of the fields on St. Mary's would be appropriate. This will ensure that the historic character of the landscape is maintained.

15.7 Elm Hedges: The elm hedges are a particular feature of St. Mary's along the narrow, winding lanes and around farmsteads. They are important for both landscape and wildlife reasons. They should be retained and replanted where appropriate.

15.8 Stone walls: On St. Mary's there is a variety of stone walled boundaries, including drystone walls, stone-faced stone walls and stone-faced earth walls. Boundaries should be maintained in their present form and repaired where necessary.

15.9 Grazing: The reintroduction of grazing to areas of neglected grassland and the coastal fringe would be beneficial. On St. Mary's the unenclosed coastal areas (apart from Peninnis Head) are not notified as a SSSI and are therefore not covered by the Reserves Enhancement Scheme.

15.10 Arable weeds: Many of the cultivated fields towards the coast support interesting populations of wildflowers and arable weeds. It is recommended that, in these areas, a herbicide free margin is retained along field boundaries. A width of 1-2 metres will be appropriate in most cases. Similarly the walls themselves should not be sprayed to remove vegetation.

15.11 Orchards: Orchards have long been a feature of the St. Mary's landscape, for example one at Newford is recorded in the 1652 Parliamentary Survey and as part of the general re-stocking after the Civil War, other fruit trees (apples, pears and cherries) were planted in Holy Vale. The first edition 25" O.S map for Scilly (1888) records numerous orchards around individual farmsteads, including Lenterverne, Higher Trenoweth, Lower Newford, Holy Vale, and Rocky Hill. A number of remnant orchards are still present in

these locations. Traditional island varieties of apple, that may well descend from the old Holy Vale plantings include 'Lady's Finger' and 'Scilly Pearl'. While the former of these may be extinct, a number of trees bearing the 'Scilly Pearl' survive on the island. Although Scilly's orchards may never provide a commercial crop of apples it is recommended that existing orchards are restored and managed as a local landscape feature.

Summary of Management Actions: St. Mary's - Undulating Agricultural Interior

- *Key features* (see Figure 15.1)
- *Key management areas* (see Figure 15.2)
  A. St. Mary's - Enclosed farmland

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/br	1	A
Tree planting	Tp	1	A
Shelter hedge planting	Hp	1	A
Top wiring/fencing	Tw	3	A
Orchard restoration (planting, frameworking, pruning etc.)	0	1	A
Management measures			
Management of shelter hedges	He	1	A
Management for arable weeds/(field margins)	Aw2	1	A
Managing grassland - hay meadows, or	Hl	3	A
Managing grassland - grazed pasture	Pl	3	A
Managing orchards	Hi3	1	A

LANDSCAPE TYPE: VALLEYS WITH POOLS AND MARSH

15.12 This covers the low-lying areas on St. Mary's known as Lower Moors and Higher Moors and the surrounding damp grazed fields. Parts of both areas have been notified as SSSI's and therefore have the potential to be managed under the Reserves Enhancement Scheme (RES).

15.13 The freshwater pools and marshes, adjacent grasslands and rank growth are rare habitats on the Islands and the reedbeds themselves represent a measurable and important percentage of such a habitat throughout Cornwall. As well as being an important site for native birds the reedbeds of Higher and Lower Moors are also staging posts for large numbers of migrant birds. The reedbeds of Higher Moors are particularly important for passage 'marsh type' warblers, including a high proportion of these being non-UK birds.

15.14 The Moors are also of great historic and archaeological importance, relict early enclosures survive as surface features, remnants of peat cuts and baulks are visible and the below ground peat deposits contain valuable information on the vegetation history and changing sea level of Scilly. There is a lack of information on the nature and extent of the historic resource and it is considered that the archaeological and palaeoenvironmental value of these areas has been underestimated. It is consequently not being taken into account in current management, for example enlargement of pools leading to loss of peat, and damage/drying out of the peat through tree and scrub invasion.

Management Objectives

- to undertake detailed co-ordinated survey and research of each area to allow appropriate integrated management prescriptions to be drawn up which reflect the importance of Higher Moors and Lower Moors as natural habitats and an historical/archaeological resource;

Management Strategy

15.15 *St. Mary's Moors (Area B):* Given the great importance of the Higher Moors and Lower Moors as both natural habitats and an historic and archaeological resource it is recommended that further survey and research is undertaken to allow a detailed, co-ordinated management strategy for these areas to be drawn up. This will involve consultation and liaison between those organisations with key interests in these areas, to include the RSPB, English Nature, Cornwall Archaeological Unit and the Isles of Scilly Environmental Trust.

15.16 Management prescriptions may include control of scrub invasion, re-introduction of grazing, and management of the ditches. These are all eligible for funding under Countryside Stewardship Scheme.

Summary of Management Actions: St. Mary's - Valleys with Pools and Marsh

- *Key features* (see Figure 15.1)
- *Key management areas* (see Figure 15.2)
  B. St. Mary's Moors

LANDSCAPE TYPE: FORTIFIED HEADLANDS

15.17 This landscape type only occurs on St. Mary's and refers to the Garrison. The Garrison has a mixed land cover including rough unenclosed heathland over much of the western side of the headland with post medieval and modern enclosed fields and bulb strips on the plateau and more sheltered eastern slopes overlooking Hugh Town. These are protected by a shelterbelt planting of Monterey pines. This management strategy refers

specifically to the enclosed land on the plateau and eastern edge of the headland. The remainder of the area, comprising heathland around the coastal edge, is leased to and managed by the Environmental Trust. This land is not an SSSI and not included in the Reserves Enhancement Scheme and is therefore also eligible for management under the Countryside Stewardship Scheme.

Management Objectives

- to maintain the present pattern of small enclosed fields with stone wall boundaries and shelter hedges;

- to restore and manage the shelter belts.

Management Strategy

15.18 *St. Mary's enclosed farmland (Area A):* The management strategy treats the Garrison area as part of the rest of the agricultural interior of St. Mary's and involves the:

- restoration and repair of shelter belts (responsibility of the Forestry Authority);
- repair and maintenance of stone walls;
- re-introduction of grazing, ideally to include grazing of adjacent unenclosed land.

For further details see para 15.2-15.10.

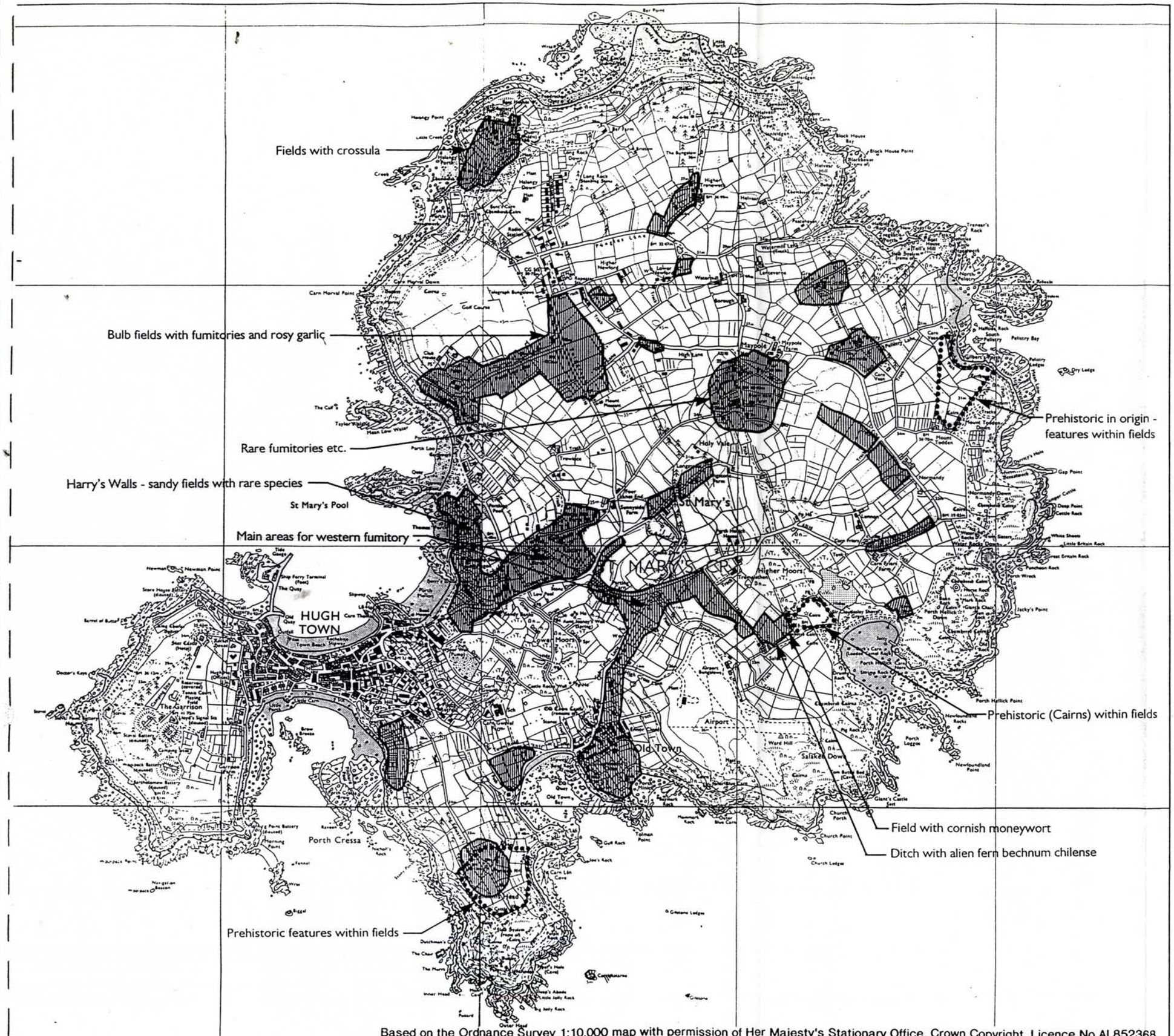

Fig. 15.1
St Mary's
ENCLOSED LAND
CRITICAL AREAS
(Provisional)

NOTE: These are provisional maps only and do not identify all areas of interest. Full archaeological and ecological surveys will be required to draw up definitive maps.

Field systems identified as being of prehistoric origin, and/or containing historic surface features

Fields known to support important populations of arable weeds and other wildflowers

0 500m 1km

NORTH

Fig. 15.2
St Mary's:
ENCLOSED LAND MANAGEMENT AREAS

NOTE: On St Mary's the management prescriptions are more flexible - many apply to the whole Island. There are therefore only two management areas shown on this plan.

A: St Mary's: Enclosed Farmland

- Orchards shown on 1st Edition O.S. (1889): Opportunity to restore
- Coniferous shelterbelts: Restore
- Coniferous shelterbelts: Remove trees impinging on sites of archaeological/ ecological interest
- Coniferous shelterbelts: Opportunities for new/infill planting

The following management recommendations also apply:

- Shelter hedge planting and management, where appropriate
- Field corner tree planting where appropriate
- Repair and management of field boundaries
- Management of grassland by grazing/cutting
- Management of field margins for arable weeds and other wildflowers

B: St Mary's: Moors

Detailed survey and research required to allow integrated management prescription to be drawn up reflecting high nature conservation, historic and archaeological values of Higher and Lower Moors.

0 500m 1km

NORTH

16.0 TRESCO: ENCLOSED LAND

LANDSCAPE TYPE: VALLEYS WITH POOLS AND MARSH

16.1 On Tresco this landscape type comprises the Great Pool - the largest area of freshwater on Scilly, and the adjacent reed-fringed margins and areas of willow carr. There are, in addition, several low-lying grazed fields bordering the southern edge of the pool adjacent to Abbey Road. These nineteenth century enclosures have stone-faced earth wall boundaries, and have been further subdivided by post and wire fencing, paddock fencing and, in one case, by a line of palm trees. Abbey Road is fringed by a mixed woodland plantation - part of the shelter woodland of Abbey Hill and including some oak trees possibly remnants of the ancient Abbey Wood. To the north, the shelterbelts of Middle Down extend along Pool Road.

16.2 The lake and fringe is designated as an SSSI and the Pool and its surroundings are important for both breeding and migrant birds.

Management Objectives

- to conserve and enhance the balance of habitats including open water, reedbeds, willow carr and damp grassland;
- to restore and maintain stone wall boundaries and retain existing field pattern.

Management Strategy

16.3 The Pool and its immediate margins are presently maintained to a good standard by Tresco Estate. Management aims to keep the water open and prevent invasion by reed and willow scrub. As an SSSI management of the Pool and its margins may qualify for funding under English Nature's Reserve Enhancement Scheme. However, it is not leased to the Environmental Trust and is not currently within this scheme. The mixed woodlands along Abbey Road and Pool Road are in a reasonable condition and have been included in the Tresco Woodland Restoration Plan. Assistance and funding towards woodland planting and management on Tresco has been provided by English Heritage (Garden Grant) and the Countryside Commission (Historic Parks and Gardens Scheme) and the Forestry Authority (Woodland Grant Scheme).

16.4 *Fields/pasture (Area 2):* The only areas that may be eligible for Countryside Stewardship are the grass paddocks to the south side of the lake. Here, existing stone boundaries should be maintained and repaired where necessary. These fields should, ideally, be managed by low intensity grazing. The application of herbicides, pesticides and fertilisers in these sensitive water side areas should be avoided.

Summary of Management Actions: Tresco - Valleys with Pools and Marsh

- *Key features* (see Figure 16.1)
- *Key management areas* (see Figure 16.2)
  2. Fields/Pasture

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/br	3	2
Management measures			
Managing grassland-grazed pastures	P1	2	2

LANDSCAPE TYPE: HILLS WITH WOODLAND

16.5 On Tresco this landscape type refers to most of Middle Down and Abbey Hill. Abbey Hill is almost entirely wooded and shelters the sub-tropical Abbey Gardens which lie in the lee of the hill.

16.6 In contrast on Middle Down the hilltop woodland extends down and around the hillslopes as narrow plantations. The hillslopes of Middle Down include substantial areas of farmland including bulb strips sub-divided by pittosporum and olearia hedges, grazed fields and cultivated arable land. Boundaries include stone walls (nineteenth century rebuild), which are generally in a good state of repair, combined with shelter hedges. The fields around Borough are known to be of medieval origin and contain interesting boundaries and surface features. The cultivated areas are known to support good populations of wildflowers including rare arable weeds and naturalised exotic species.

Management Objectives

- to restore and maintain stone wall boundaries and retain existing field pattern;
- to restore and manage the woodland shelterbelts (to meet both landscape, nature conservation and shelter objectives);
- to conserve and enhance the historic features which survive within existing fields;
- to conserve and enhance the flora, including native wildflowers, rare arable weeds, naturalised bulbs and other exotic species;
- to enhance the grassland habitat of the grazed fields.

Management Strategy

16.7 The woodlands and shelterbelts have been included in the Tresco Woodland Restoration Plan. Assistance and funding towards planting and management has been provided by and the Countryside Commission (Historic Parks and Gardens Scheme) and the Forestry Authority (Woodland Grant Scheme). It is essential that any new planting is carefully designed and does not encroach on archaeological remains. The natural regeneration of trees and scrub in sensitive areas should also be monitored and where necessary controlled.

16.8 Throughout the whole area existing stone wall boundaries should be maintained and where necessary repaired. The walls are generally in good condition and therefore this is not a current management priority.

16.9 *Field/pasture (Area 2):* The anciently enclosed land around Borough, should continue to be managed by low intensity grazing, to conserve surface features within fields. This area should **not** be converted to cultivation.

16.10 *Cultivated land and other bulb strips (Area 5):* Within the existing cultivated fields, field margins should be managed for arable weeds. The larger field size on Tresco may allow wider herbicide-free margins to be created.

Summary of Management Actions: Tresco - Hills with Woodland

- *Key features* (see Figure 16.1)
- *Key management areas* (see Figure 16.2)
  2. Fields/Pasture
  5. Cultivated land and other bulb strips

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	3	2, 5
Management measures			
Management for arable weeds (margins)	Aw2	1	5
Managing grassland - grazed pastures	P1	1	2

LANDSCAPE TYPE: VALLEY AND HILLSLOPE WITH BULB STRIPS

16.11 On Tresco this landscape type refers specifically to the bulb strips in the valley between Old Grimsby and New Grimsby. Blocks of bulbs strips do occur elsewhere on the island, for example around the lower slopes of Middle Down - however, here they are mixed with other arable and grazed fields and are sheltered by woodland belts and therefore do not have the same distinctive bulb strip character.

16.12 In the gently undulating valley between New Grimsby and Old Grimsby the bulb strips are enclosed by walls and subdivided by shelter hedges which include elm, tamarisk, pittosporum and olearia. The fields are larger and less uniform than the narrow, parallel bulb strips found on the other off-islands. This, combined with the fact that they are located in a sheltered valley means that they do not have the same visual impact as those found, for example, on the hillslopes of Bryher and St. Martin's.. Some areas are known to support good populations of arable weeds and other wildflowers.

Management Objectives

- to restore and maintain existing stone wall boundaries;
- to conserve and enhance the population of wildflowers, rare arable weeds and naturalised bulbs;
- to retain hedges as shelters, nesting site and food source for birds.

Management Strategy

16.13 *Cultivated land and other bulbstrips (Area 5):* The objectives for this area are largely being met by existing management regimes. While the hedges are important for shelter, they are do not have great landscape impact and therefore are not a current priority for Stewardship funding. The stone wall boundaries should be maintained, although they are generally in a good state of repair and are not an immediate management priority. The main requirement, here, is to maintain herbicide free field margins to allow arable weeds and other wildflowers to flourish. In these fields, which are larger than the bulb strips on the off-islands, wider field margins (e.g. 2m metres or more) may be appropriate.

Summary of Management Actions: Tresco - Valleys and Hillslope with Bulb Strips

- *Key features* (see Figure 16.1)
- *Key management areas* (see Figure 16.2)
  5. Cultivated land and other bulb strips.

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	3	5
Management measures			
Management for arable weeds (field margins)	Aw2	1	5

LANDSCAPE TYPE: VALLEY AND HILLSLOPE WITH FIELDS

16.14 On Tresco this refers to the land on the hillslopes south of Dolphin Town and north of Back Lane and a small area of land west of Abbey Hill. It includes both anciently enclosed land, late post-medieval enclosures and modern enclosures. The field pattern has been significantly modified and rationalised by Augustus Smith and his descendants. Boundaries are predominantly stone walls constructed in the nineteenth and twentieth century to the Tresco Estate house style and are, generally, a good state of repair. In some cases post and wire fencing has replaced the walls, for example at Dial Rock. The fields are, generally, much larger than those found on the other islands and are almost all managed by grazing.

Management Objectives

- to restore and maintain existing stone wall boundaries and retain the present field pattern;
- to conserve and enhance the historic features which survive within existing fields;
- to continue to manage the fields by grazing and where possible to enhance the grassland habitat;

Management Strategy

16.15 *Fields/pasture (Area 2):* The management objectives for this area are largely being achieved by the present management regime. Present management should not be intensified, for example existing grass pasture should continue to be managed by cattle grazing. Although many of the field boundaries have been rebuilt, the fields themselves contain important surface features such as the Romano - British settlement and field system at Dial Rocks and the medieval field system on the east facing slope south of Dolphin Town. Ploughing or any other type of ground disturbance would destroy these features and should therefore not be carried out. Stone wall boundaries should be retained, although the walls are generally in a good condition and their repair is not a current management priority.

Summary of Management Actions: Tresco - Valleys and hillslope with fields

- *Key features* (see Figure 16.1)
- *Key management areas* (see Figure 16.2)
  2. Fields/Pasture

Proposed Management	Code	Priority	Management Area
Capital items			
Field boundary (wall) repair	Wd/Br	3	2
Management measures			
Managing grassland - grazed pasture	PI	1	2

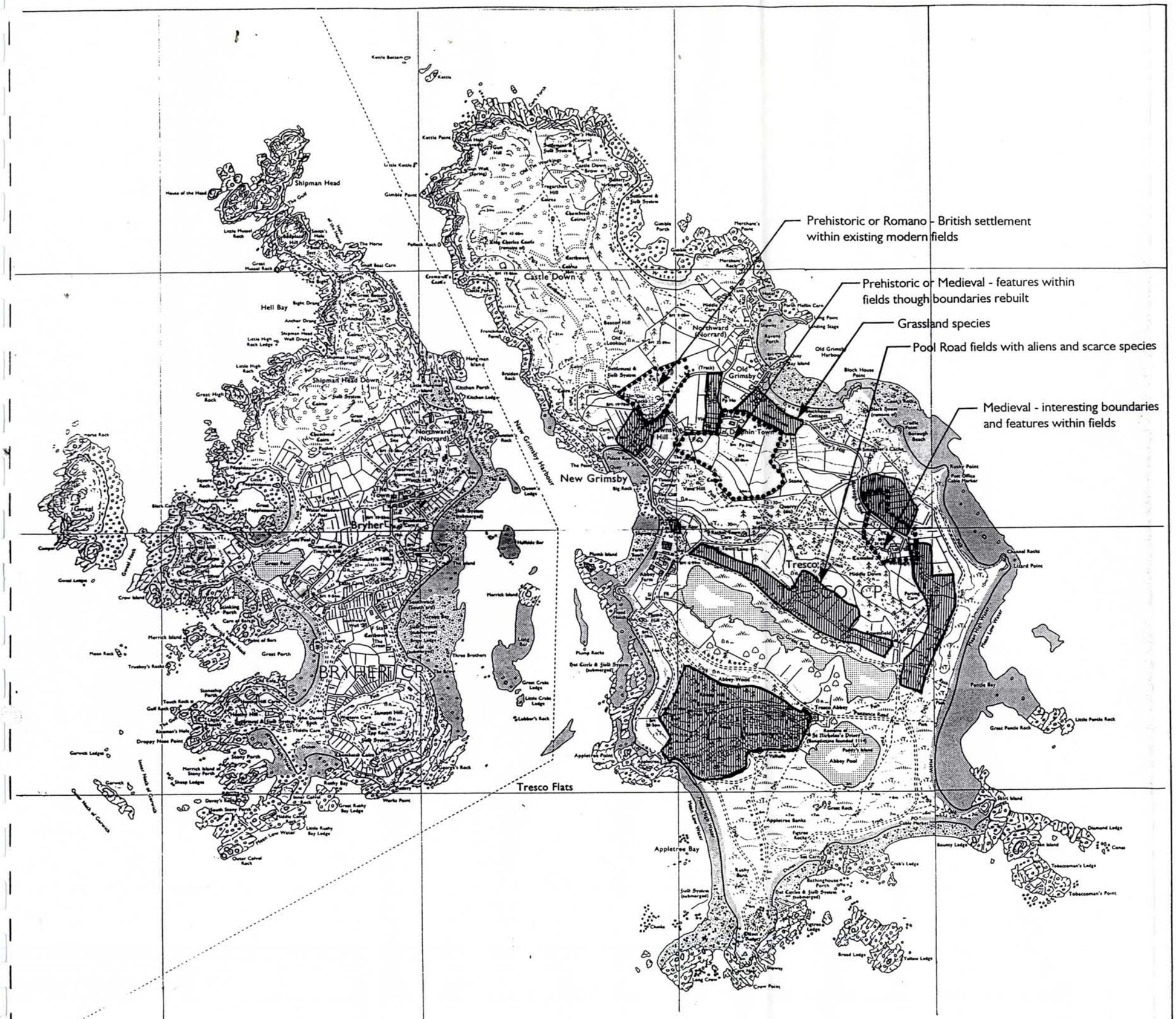

Fig. 16.1
Tresco:
ENCLOSED LAND
CRITICAL AREAS
(Provisional)

NOTE: These are provisional maps only and do not identify all areas of interest. Full archaeological and ecological surveys will be required to draw up definitive maps.

Field systems identified as being of prehistoric origin, and/or containing historic surface features

Fields known to support important populations of arable weeds and other wildflowers

0 500m 1km

NORTH

Fig. 16.2
Tresco:
ENCLOSED LAND MANAGEMENT AREAS

2 **Fields/Pasture:**
Maintain present field pattern and historic features within fields. Repair and maintain stone wall boundaries. Manage by grazing or cutting to enhance grassland habitat

5 **Cultivated Land & Other Bulb Strips:**
Maintain and enhance arable weed flora and other wild flowers. Maintain stone wall boundaries.

0 500m 1km

NORTH

17.0 MANAGEMENT OF THE UNENCLOSED LAND

INTRODUCTION

17.1 The management strategy described in Chapters 12 - 16 relates to the enclosed land, that is the tenanted 'farmed' land. The Duchy of Cornwall has leased all the uninhabited islands and all the untenanted land on Bryher, St. Agnes, St. Martin's and St. Mary's to the Environmental Trust. This amounts to a total area of about 900 ha. Of this land over two thirds has been notified as SSSI. This chapter briefly describes the current management of the unenclosed land and notes any opportunities for Countryside Stewardship.

17.2 Of the landscape types identified in Part 2 of this report, the following are predominantly on land leased to the Environmental Trust.

Exposed headland heaths

Lowlying southern headlands

Fortified headlands

Sandy coast with dunes and/or grassland

Rocky coast with heathland

Unenclosed hills

CURRENT MANAGEMENT

17.3 **The Environmental Trust:** is an autonomous organisation and a registered charity, founded in 1986 following proposals set out in the report by Moss Associates (1984). With the patronage of the Prince of Wales, Duke of Cornwall, the management of the Trust and its land is vested in up to twenty Scillonian Trustees with support from English Heritage and English Nature and is administered by a professional Director.

17.4 **The Management Plans:** A Comprehensive Environmental Management Plan was prepared for The Environmental Trust by CEAS Consultants (Wye) Ltd in 1989. This is a very detailed report in two volumes (330 pages). The first volume seeks to outline present and future needs of the Trust, the types of habitats it currently manages and general management strategies. Volume two concentrates on the management of the land leased to the Trust and includes site-specific management prescriptions and detailed maps for use in practical management work.

17.5 A separate Archaeological Management Plan for the Isles of Scilly Environmental Trust was prepared by Cornwall Archaeological Unit as a companion document to the Environmental Management Plan. This comprehensive plan includes management recommendations by General Locality (i.e. Beach and Intertidal, Marine, Cliff Face, Moorland and Clifftop, Dunes, Uninhabited Islands, Enclosed Land, Wetlands and Built

OPPORTUNITIES FOR COUNTRYSIDE STEWARDSHIP

17.8 It has been noted that one of the key management requirements for the enclosed land involves the reintroduction of grazing livestock to the Islands. Ideally the management of the unenclosed land and enclosed farmland should be integrated with grazing livestock being owned and managed by the farmers, with the outlying downland being grazed as part of the farming system. There may be an opportunity for payments to be made to farmers willing to put stock on to the unenclosed land.

17.9 There are considerable areas of the unenclosed land which are not notified as SSSIs and therefore not covered by the RES. These amount to a total area of 227 ha, the majority of which is on coastal fringe of St. Mary's (105 ha). The locations of these areas are shown on Figures 17.1- 17.4. They are as follows:

Areas of unenclosed land - potential for Countryside Stewardship

Bryher	25 ha
St. Agnes	9 ha
St. Martin's	52 ha
St. Mary's	126 ha
Tresco	15 ha

17.10 This land would be eligible for Countryside Stewardship under 'the coast' or 'lowland heath' categories. The management needs of these areas are succinctly set out in the Environmental Management Plan and Archaeological Management Plan and are therefore not re-iterated here. The Management Measures in the Countryside Stewardship Handbook describe how this management should be implemented through a Stewardship Scheme.

17.11 It is essential that the management of the unenclosed land is integrated with the management of the enclosed land, particularly where the re-introduction of grazing is proposed. It is envisaged that the Countryside Stewardship Facilitator will play a key role in liaising between the tenants (enclosed land) and the Environmental Trust (unenclosed land).

INTEGRATED MANAGEMENT OF THE HISTORIC LANDSCAPE

17.12 The land leased to the Environmental Trust includes some of the prime historic landscape types and an impressive range of archaeological monuments. The implementation of Countryside Stewardship Schemes in these areas provides an opportunity to integrate the management of the natural and historic landscape.

17.13 English Nature have recently had confirmation that, subject to approval of an application by MAFF, there could be capital funding from Countryside Stewardship to assist archaeological management on RES sites providing that the former is clearly separate

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Environment) and management recommendations for different form of archaeological monuments (Earthworks, stone structures, ruined buildings). Access, interpretation and presentation recommendations are included, and detailed management recommendations are set out by Island.

17.5 **Reserves Enhancement Scheme:** All SSSIs managed by the Environmental Trust have been entered into a Management Agreement under the Reserves Enhancement Scheme (RES) operated by English Nature. The Trust have drawn up a programme of detailed management actions required to achieve the objectives set out in the CEAS Management Plan and the Scheme provides a payment to enable these to be implemented. The RES Agreement, which commenced in 1995, runs for 5 years.

17.6 The ideal management objectives stated in the Project Register are:

- to maintain the existing diversity of geological and pedological features;
- to maintain the unique and diverse heathland types;
- to maintain the unique and diverse coastal grasslands;
- to restore degraded habitats;
- to maintain minor habitats (pools, scrub, shore);
- to increase populations of rare plants and lichens;
- to maintain/increase/ reintroduce rare fauna;
- to protect archaeological features;
- to protect landscape features;
- to encourage further research;
- to provide for public education/ interest.

17.7 The Reserves Enhancement Scheme provides payments to the Environmental Trust to carry out nature conservation management work on SSSIs, not archaeological management *per se*. In order to protect and wherever possible, enhance the archaeological interest of a site, the Trust is expected to modify its programme to take this into account. However, the RES does not provide direct funding for the management of archaeological sites and at present management of the natural and historic environment is not fully integrated. This has been recognised by the English Nature and the Environmental Trust and represents an opportunity for the future (see para.17.12).

(note. English Nature and English Heritage have a joint Statement of Intent that forms the basis for mutual co-operation between the two organisations.)

OPPORTUNITIES FOR COUNTRYSIDE STEWARDSHIP

17.8 It has been noted that one of the key management requirements for the enclosed land involves the reintroduction of grazing livestock to the Islands. Ideally the management of the unenclosed land and enclosed farmland should be integrated with grazing livestock being owned and managed by the farmers, with the outlying downland being grazed as part of the farming system. There may be an opportunity for payments to be made to farmers willing to put stock on to the unenclosed land.

17.9 There are considerable areas of the unenclosed land which are not notified as SSSIs and therefore not covered by the RES. These amount to a total area of 227 ha, the majority of which is on coastal fringe of St. Mary's (105 ha). The locations of these areas are shown on Figures 17.1- 17.4. They are as follows:

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17.11 It is essential that the management of the unenclosed land is integrated with the management of the enclosed land, particularly where the re-introduction of grazing is proposed. It is envisaged that the Countryside Stewardship Facilitator will play a key role in liaising between the tenants (enclosed land) and the Environmental Trust (unenclosed land).

INTEGRATED MANAGEMENT OF THE HISTORIC LANDSCAPE

17.12 The land leased to the Environmental Trust includes some of the prime historic landscape types and an impressive range of archaeological monuments. The implementation of Countryside Stewardship Schemes in these areas provides an opportunity to integrate the management of the natural and historic landscape.

17.13 English Nature have recently had confirmation that, subject to approval of an application by MAFF, there could be capital funding from Countryside Stewardship to assist archaeological management on RES sites providing that the former is clearly separate

from the management that will be carried out under RES. This is essential to avoid there being any possibility of double Exchequer funding.

17.14 There are, in addition, two other main mechanisms for funding the management of archaeological monuments, namely:

- Management Agreements for scheduled monuments - these are management agreements made between English Heritage and the landholder and offer annual payments for the implementation of an agreed regime of on-going management.

- Capital Management Works - these are also funded by English Heritage and include works such as repairs, vegetation clearance, access improvements and interpretation facilities. The scheme usually applies to scheduled monuments but other nationally important monuments may also be candidates for grant aid.

17.15 It is recommended that consideration is given to opportunities for joining such schemes on all the unenclosed land to assist the management of the historic environment, and allow integrated land management which recognises its high historic, wildlife, landscape and amenity value.

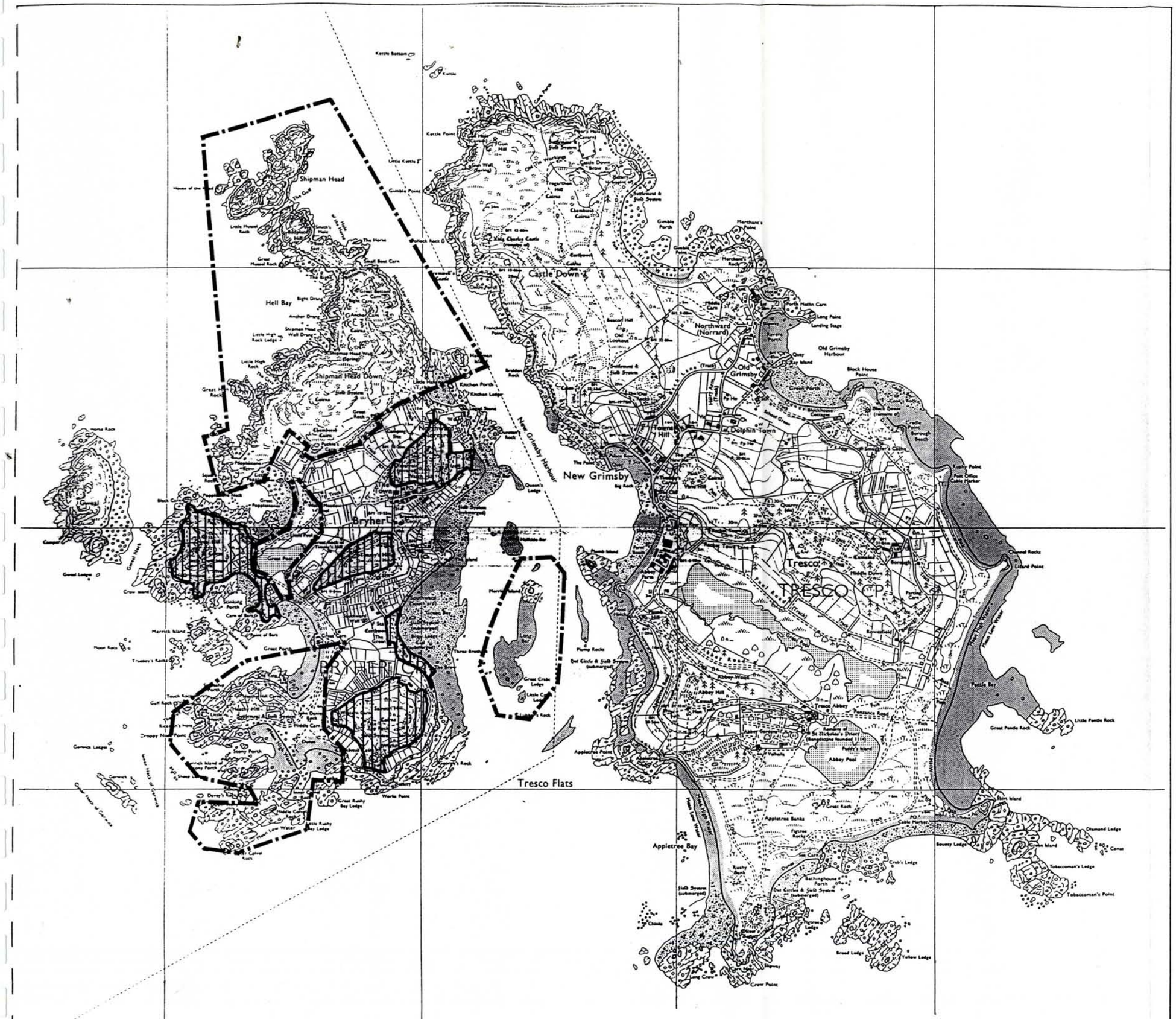

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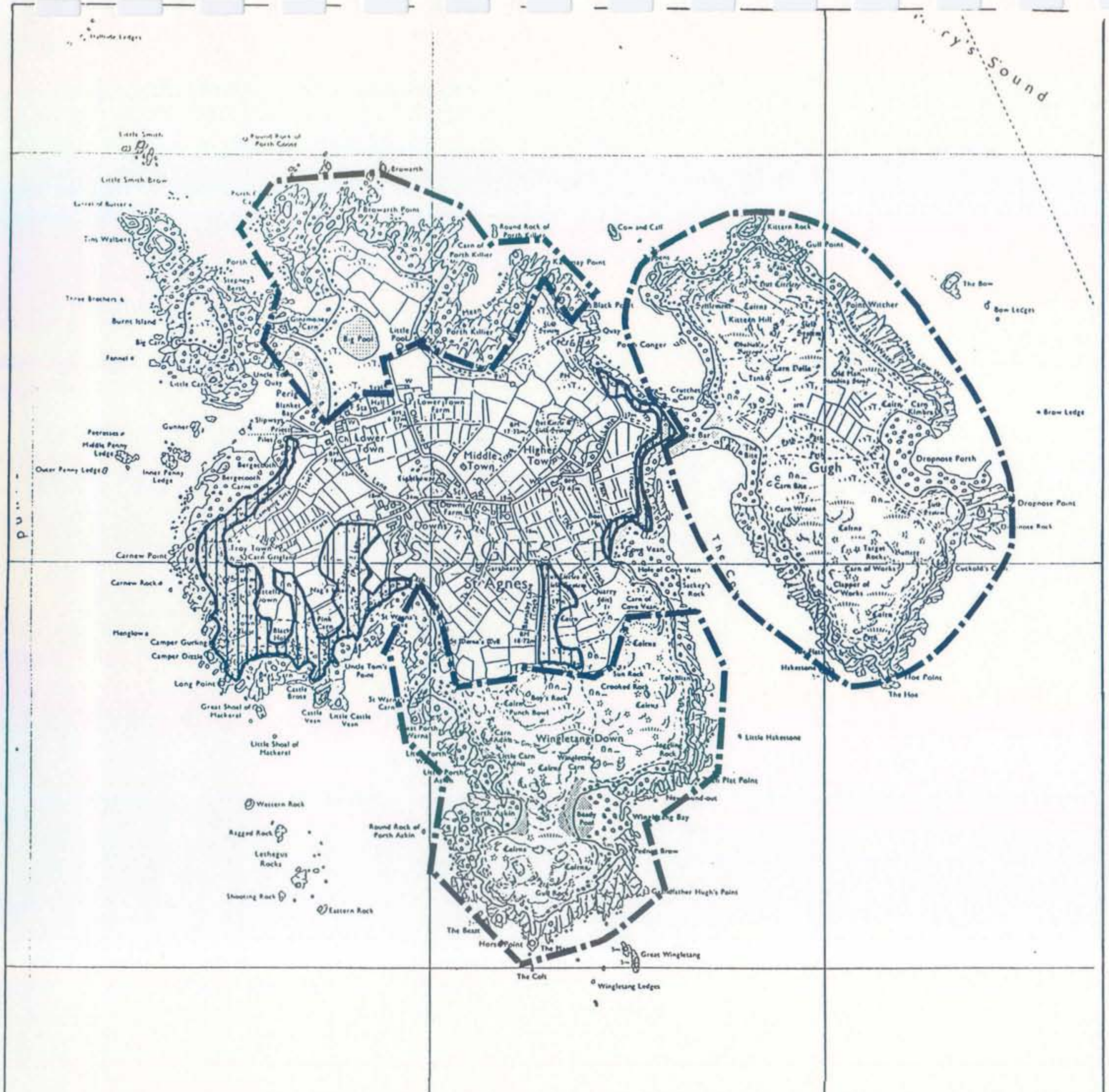
Fig. 17.1
Bryher:
MANAGEMENT OF UNENCLOSED LAND

S.S.S.I (in R.E.S.)

Unenclosed Land (not S.S.S.I.)
Potential for Countryside Stewardship

Fig. 17.2
St Agnes: MANAGEMENT OF UNENCLOSED LAND



S.S.S.I (in R.E.S.)

Unenclosed Land (not S.S.S.I.) Potential for Countryside Stewardship

0 500m 1km

NORTH

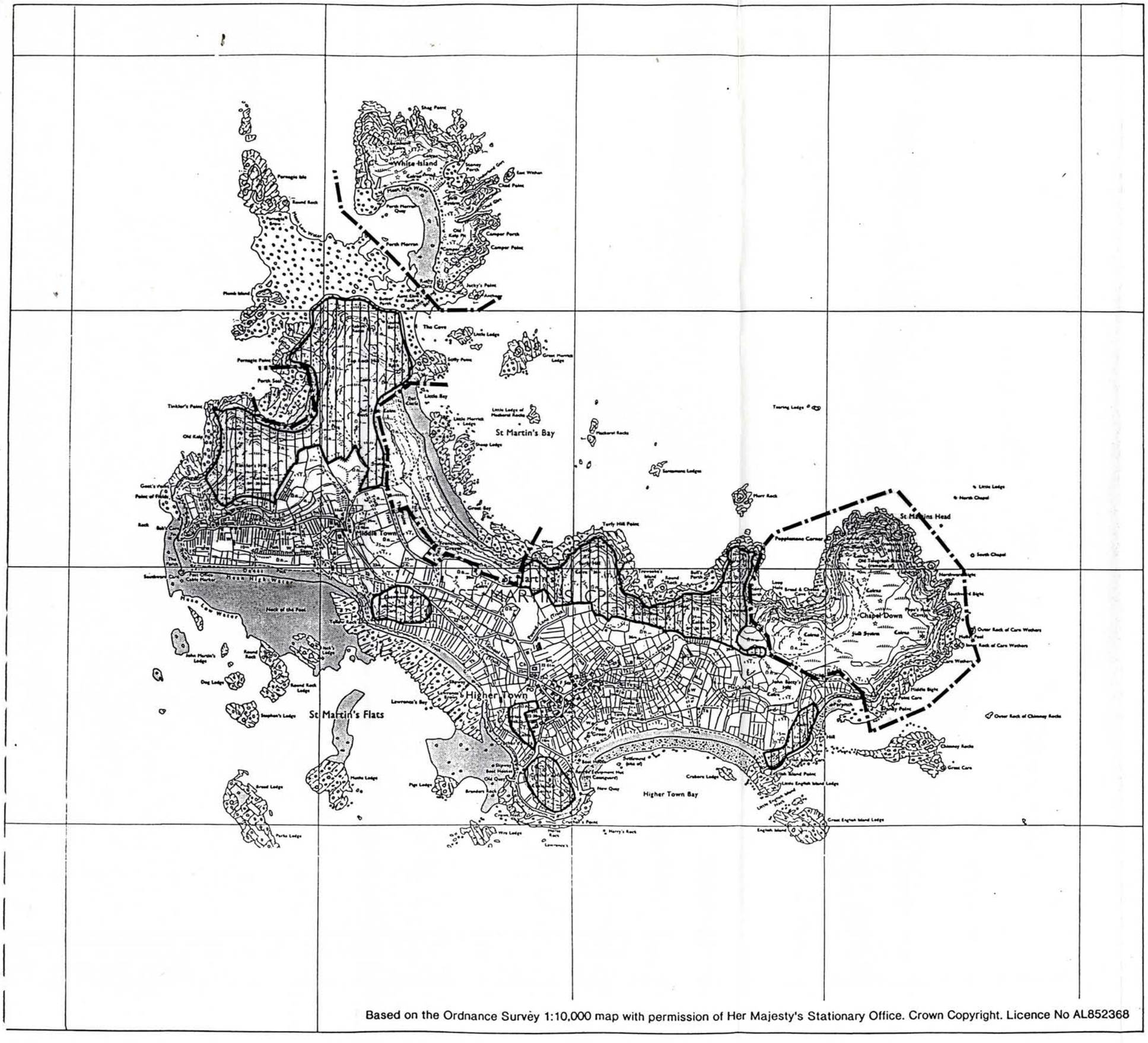


Fig. 17.3
St Martin's: MANAGEMENT OF UNENCLOSED LAND

S.S.S.I (in R.E.S.)

Unenclosed Land (not S.S.S.I.)
Potential for Countryside Stewardship

0 500m 1km

NORTH

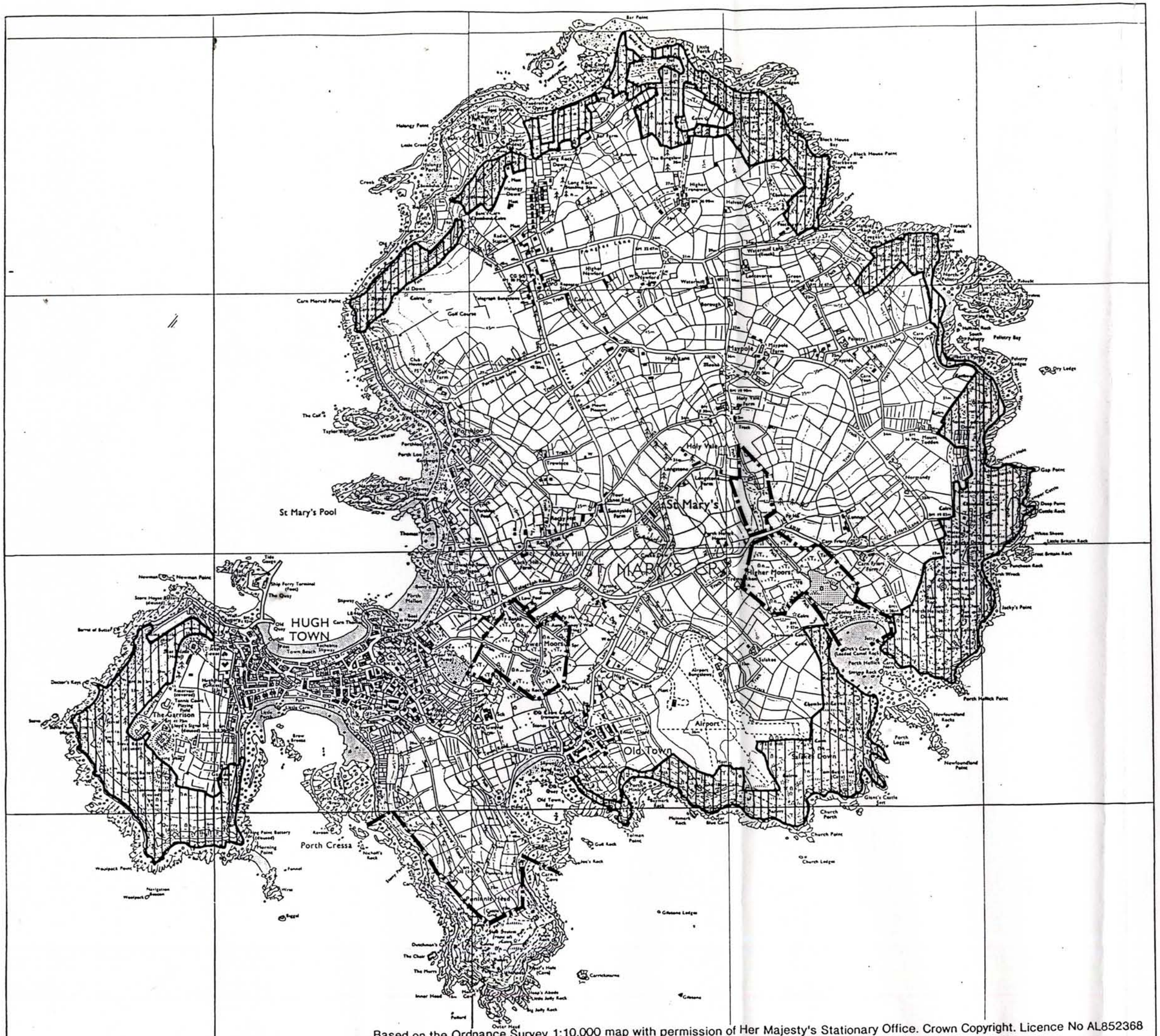


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Fig. 17.4
St Mary's: MANAGEMENT OF UNENCLOSED LAND

- ╱ S.S.S.I (in R.E.S.)
- ▥ Unenclosed Land (not S.S.S.I.) Potential for Countryside Stewardship

Fig. 17.5
Tresco:
MANAGEMENT OF UNENCLOSED LAND

S.S.S.I (Not in R.E.S.)

Unenclosed Land (not S.S.S.I.)
Potential for Countryside Stewardship

Areas excluded from S.S.S.I.

0 500m 1km

NORTH

18.0 MANAGEMENT OF PUBLIC ACCESS AND RECREATION

THE RESOURCE

18.1 Although there are no definitive rights of way on Scilly, the inhabited islands have an excellent network of permissive footpaths, which on most islands provide circular access along the entire coastline, criss-cross the unenclosed land and provide a limited degree of access through the uncultivated, enclosed farmland. This network is illustrated on the Visitor Companion Maps produced by the Isles of Scilly Environmental Trust as well as leaflets produced by the Isles of Scilly Council/Tourist Information Centre. There is only one bridleway, on St. Mary's, and there are no off road cycle paths. Cycling (which is an increasingly popular activity, particularly on St. Mary's) is not allowed on the footpaths. The Islands have long been a popular holiday destination for walkers. The Local Plan and Economic Development Strategy acknowledge the importance of visitors to the economy and the need for a visitor centre and interpretation facilities has been identified.

CURRENT MANAGEMENT

18.2 The majority of footpaths are on land leased by the Environmental Trust and are maintained by the Trust. The Trust are currently rationalising the footpath network and have made a number of small scale changes, for example some paths have been upgraded, and new paths created to fill in gaps in the network. The footpaths on Higher Moors and Lower Moors have been improved to a standard that allows access for less able and those in wheelchairs. The bridleway is maintained by the Riding Association.

EXISTING MANAGEMENT RECOMMENDATIONS

18.3 The Environmental Management Plan produced for the Isles of Scilly Environmental Trust by CEAS Wye College (1989) contains detailed information on 'Amenity, Access and Interpretation' (Vol.1, Ch. 4). It includes sections on:

- The need for interpretation;
- Existing interpretative facilities.
- Future development of interpretative facilities;
- Recreational facilities;
- Proposed management of recreational activities;
- Footpaths and bridleways;
- Management prescriptions.

18.4 The Archaeological Management Plan produced by Cornwall Archaeological Unit (1989) includes as Section 10: 'Access, Interpretation and Presentation Recommendations'. Section 11: 'Recommendations by Island' contains detailed management prescriptions for

the surviving archaeological remains. This includes proposals for footpath relocation and repair of erosion caused by visitor pressure, as well as opportunities for the creation of new access to archaeological sites which are obscured by the growth of gorse and other vegetation.

18.5 **ISET Interpretative Strategy:** The Isle of Scilly Environmental Trust have recently (1995) commissioned an Interpretative Study of the Islands. The work, which is supported by English Nature, will identify what interpretative facilities are needed, how they can best be managed, locate levels of support from various agencies, and indicate possible sources of funding as well as identifying appropriate locations.

OPPORTUNITIES ON THE ENCLOSED LAND

18.6 As part of this study opportunities to improve existing public access provision under Countryside Stewardship have been reviewed. Our broad conclusions are set out below:

- for the cultivated land of the bulb fields there are no opportunities to create facilities for public access due to the risk of infection and transfer of eelworm as well as concerns regarding damage to crops;

- generally there is sufficient access to the uncultivated land and the creation of further new footpaths is not envisaged. However, where it is proposed to re-introduce management by grazing in association with the unenclosed land a network of kissing gates and stiles will be required to maintain existing access. These requirements will need to be considered in detail for each Stewardship Application.

19.0 MANAGEMENT OF THE BUILT HERITAGE

19.1 The stock of traditional farm buildings on Scilly is integral to the landscape character of the Islands. This chapter outlines the main threats to the buildings and current initiatives which will enable a management strategy for the buildings to be developed.

THE RESOURCE

19.2 The important contribution made by the remaining traditional farm buildings within the intimate scale of this landscape and the evidence of the social and agrarian history of Scilly which they represent can not be overestimated. Many are in prominent positions, visible over distance from both land and sea. Some are isolated, others forming pleasing groups, either associated with a farm dwelling or in small clusters at the edge of fields.

19.3 Evolving agricultural practice has resulted in many buildings becoming neglected and redundant, with subsequent pressure for conversion to other uses, including residential use and holiday accommodation. Inappropriate repairs and the replacement of buildings with large scale structures are other key concerns.

19.4 The whole of Scilly is designated as a Conservation Area. The List of Buildings of Special Architectural or Historic Interest was updated in 1992. Although some 122 buildings are included on the list only a relatively small proportion of farm buildings are protected by listed status.

CURRENT STUDIES

19.5 Against this background the Council of the Isles of Scilly, with support from English Heritage, have recently (1995) undertaken a survey of all (118) traditional agricultural buildings on the inhabited Islands. The recording and assessment of the nature of the resource is seen to be of fundamental importance given the lack of statutory control over farm buildings. This study will include recommendations for further listing.

19.6 The Duchy of Cornwall has also undertaken a parallel study to review the condition of all buildings on the farm tenancies (490 buildings in total) with a view to identifying priorities in estate management terms (see para 9.4).

THE MANAGEMENT STRATEGY

19.7 It is envisaged that the results of both studies will allow a strategy to be developed for management of the built resource.

The Strategy should:

- identify those buildings worthy of listed status (and, therefore, eligible for grant aid from English Heritage);
- identify those buildings with potential for conversion;

- identify the stock of buildings which should remain in agricultural use to meet present or future farming needs (i.e. should not be converted);
- identify buildings which are beyond economic repair, and those which could be consolidated as 'ruins';
- include design guidance on 'appropriate' and acceptable repairs.

SOURCES OF FUNDING

19.8 The implementation of a management strategy for Scilly's stock of traditional farm buildings will depend on an appropriate source of funding being available. These are outlined below.

19.9 With the closure of the Farm and Conservation Grant Scheme (F&CGS) in February 1996 and its merger with the Countryside Stewardship there is a potential gap in funding as grants to repair and maintain traditional farm buildings available under F&CGS have not been transferred to Stewardship. However the recent Consultation Document on Environmental Land Management Schemes (1995) proposed that grants for repairs or reinstatement of traditional buildings should become available on land which is targeted under Stewardship's other options. The White Paper on Rural England (1995) commits to further expand Stewardship by integrating payments for conservation purposes under the F&CGS. Funding towards the repair and maintenance of traditional farm buildings may therefore become a feature of Stewardship in the future. **The buildings on Scilly would be a high priority for funding under such a scheme.**

19.10 The potential for a 'Conservation Area Partnership' on Scilly is currently under discussion with English Heritage. In these areas grants are available towards the cost of repairing historic buildings and associated environmental works. Resources may also be available from the EAGGF under the Objective 5(b) Programme.

20.0 COUNTRYSIDE STEWARDSHIP MANAGEMENT GUIDELINES

20.1 The type of management required for the enclosed land of Scilly is in many cases different to the standard Countryside Stewardship Management Guidelines. This chapter describes those management guidelines and capital items which need to be tailored to suit the specific requirements of the Scillonian landscape. In all other case the guidelines contained in the Countryside Stewardship Handbook are appropriate. A summary of these management guidelines is given in Table 20.1 at the end of this Chapter.

MANAGEMENT MEASURES

Grazing Options (P1)

20.2 If there is a serious attempt to increase the number of grazing animals on the Islands, there will need to be close consultation with the tenants to discuss what might be the most appropriate animals and breeds. The reintroduction of grazing will achieve both conservation, archaeological and landscape objectives, as well as indirectly benefiting tourism by creating a more 'managed' landscape and preventing further reversion of fields, to bramble, bracken and gorse

20.3 **Cattle:** On the islands which continue to have considerable areas in intense horticultural productions, there is a strong preference amongst these producers that any increase in grazing should involve cattle not sheep. This recognises that sheep, if they escape, can cause very considerable damage to growing crops. Although conservation grazing is more frequently associated with sheep, cattle too can be important in maintaining species-rich swards and open heathland. For example, long term monitoring in the New Forest indicates that cattle will graze young *Calluna* as well as grassland. From the point of view of conservation grazing, cattle breeds chosen should be hardy stock such as Welsh Black or Galloway. Hardy stock are preferred for two main reasons; first they are less selective grazers when compared to other breeds and are able to utilise low quality forage meaning that they are effective grazers of heathland and low productivity grasslands. Second, they do not need to be housed in the winter - an important point on Scilly where any new large-scale agricultural buildings would be totally out of scale with the landscape.

20.4 **Sheep:** Historical records suggest that there was once a specific Scilly Islands sheep breed although this is now extinct. On the outer Islands and on those with only small areas in horticultural production, sheep may offer the best option for grazing in that they are easier to transport from island to island, compared to cattle and, if the right breed is chosen, could be run as a semi feral flock - kept primarily as a grassland/heathland management tool rather than as a commercial enterprise. There is already a flock of Jacob on the islands (Bryher) but if sheep grazing is to be encouraged more generally it might be more appropriate to encourage an established native island breed such as the Manx Loghtan, the native breed of the Isle of Man. On parts of the Isle of Man this breed runs as a semi-feral flock. It is extremely hardy, a non-selective grazer, has a very attractive wool which is proving increasingly popular and, unlike other hardy breeds, such

as Soay and Hardwicks, is not a great jumper and can generally be contained with reasonable sheep fencing. It is a rare breed but there are now a number of well established flocks in the West Country as well as many other parts of Britain. Like other breeds it can be crossed with a commercial breed for meat production. In this way tenants could maintain a core, pure bred flock, with lamb crosses bred for sale.

20.5 **Responsibility for grazing:** If grazing is to be seriously encouraged on the Islands there are three main options.

(i) One option is that the tenants are encouraged through incentives to keep livestock. In winter the livestock would be kept on enclosed pasture land and during the summer, during times agreed with the Environmental Trust, the stock would be allowed out onto the downland. As already indicated, discussions have shown that on each island other than St. Mary's, there is at least one stockman interested in keeping livestock. Given the small area of each island this should be sufficient to provide the required grazing needs. Even on St. Mary's only one or two tenants would need to be encouraged in to grazing to provide the level of grazing required on the Island.

(ii) The Environmental Trust could keep their own herd/flock of animals which in the case of sheep could be kept as a semi-feral flock. These animals could be moved from island to island, as required. To supplement the grazing available on the downlands the Trust could rent grazing land off the individual tenants and/or purchase hay as supplementary winter feed. In this way the Trust could also contribute to the management of the enclosed land. However, we would suggest that this is not the preferred option, as it would required the Trust to take on responsibility for a large amount of fencing and would necessitate the employment of a stockman.

(iii) Alternatively, the Trust hold their own feral stock to graze Trust land on the uninhabited islands.

20.6 These options could be combined in order to suit the circumstances on any particular island.

Hedge Management (He)

20.7 In Scilly the landscape character of the bulb fields is derived from the pattern of regularly managed hedges. The following management guidelines apply to both existing shelter hedges and new/gapped up hedges. They do not apply to other hedges outside the bulb fields, for example elm hedges on St. Mary's. Current Countryside Stewardship Management Guidelines do not allow for regular hedge trimming and this is, therefore, a new management measure which could be included as a **special project**.

20.8 ***Hedge cutting:*** Hedge management should be according to local (island) custom and practice, but will normally involve cutting the top and sides every other year, either by hand or with a tractor-mounted flail cutter. The aim of management should be to create a tall, thick hedge with a dense network of fine branches to provide both effective wind shelter as well as nesting sites for birds. Hedges should only be cut during the months of

January and February. This will leave winter cover and food for wildlife and avoid disturbance to nesting birds.

20.9 ***Arable weeds:*** A margin of at least 1m should be maintained to each side of the hedge, without applications of herbicide or other pesticides or fertiliser. Spot treatment of noxious weeds such as docks and thistles is permissible. This will allow wildflowers, and naturalised bulbs to thrive at the hedge base and in the field margins. Annual cultivation of the field margins will provide conditions suitable for rare arable weeds.

Re-creating Grassland (R1, Rs)

20.10 Some cultivated areas, or fields in grass ley should ideally be returned to permanent grassland. Other fields that have been heavily invaded by gorse or bracken may require a grass seed mix to be sown following clearance of the invasive vegetation. The aim should be to sow a mix of non-aggressive species - which will allow other grassland species and wildflowers to naturally colonise. Scilly has a relatively restricted range of native grasses and the grass mix and should, therefore, be selected from the species listed below:

Red fescue	*Festuca rubra*
Sheeps fescue	*Festuca ovina*
Smooth meadow grass	*Poa pratensis*
Rough meadow grass	*Poa trivialis*
Common bent	*Agrostis capillaris*
Sweet vernal grass	*Anthoxanthum odoratum*

20.11 Where possible the seed mix should be of local origin. Seed should be sown at a rate of about 20 kg per ha and the emerging sward managed by grazing or cutting to control undesirable species and encourage tillering.

Conservation and Management of Rare Arable Weeds, Naturalised Bulbs And Other Wildflowers (Aw1, Aw2)

20.12 The conservation and management of rare arable weeds is not currently covered by the Countryside Stewardship management guidelines. The following is a new management measure that could be included as a special project. The arable weed flora of Scilly is unique for the number of rare plants that still survive. Many of these plants are so unusual in the quantities and range of species found in Scilly that botanists and holiday visitors with an interest in flowers will visit the Isles specially to see them. There have already been losses to this important flora and these management recommendations aim to conserve and enhance the present population of plants.

20.13 It is unrealistic to reintroduce earlier farming methods specifically to maintain the weed flora. These recommendations are therefore practical in that they include specific recommendations for areas known to have a particularly rich flora and general recommendations to create suitable conditions over a wider area for arable weed species to thrive. The aim of management is to allow the build up of seed reserves of rare arable weeds. Two different management prescriptions are provided. The first relates to abandoned fields where it is considered that the arable weed population is so important that special management is required to ensure that they are maintained. The second is a

more general recommendation for fields which are in agricultural/horticultural use (bulbs, grass, market garden crops etc.) to promote suitable conditions to allow species to spread and thrive.

20.14 These recommendations are also appropriate for conserving and enhancing the population of naturalised bulbs , and other wildflowers, which are found along many of the hedgerows. The recommendations here are broad guidelines only - and further research and monitoring is required to produce specific prescription for specific fields. Flexibility in following these guidelines is required, for example, limited use of herbicides in autumn may be beneficial in inhibiting the growth of competitive grasses. The following should, therefore, **not** be read as blanket prescriptions for all fields.

20.15 ***Abandoned Fields (Aw1):*** These guidelines are specifically aimed at those fields that have been identified as supporting an exceptionally rich population of arable weeds, such as those on the Gugh and the sandy low-lying fields on St. Martin's. These fields should be managed by annual or biennial shallow rotovation of the surface soil to a depth of no more than 6 - 7 cm, in October - November. No herbicides, other pesticides or fertilisers should be applied and if the vegetation within the fields is to be cut, it should not be done until after the flowers have set seed. If the fields are to be bought back into agricultural/horticultural use - this regime should be continued along the field margins.

20.16 ***Margins (Aw2)***: These guidelines are aimed at creating the right conditions over a large area to allow the arable weed flora, naturalised bulbs and other wildflowers to thrive and spread. It involves maintaining a herbicide (and other pesticides and fertiliser) free strip at the base of the field boundary. It is recommended that Countryside Stewardship Scheme provides a flexible payment - with a basic sum to cover the first metre width and rising to encourage the creation of wider field margins. These guidelines will apply primarily to the shelter hedges - however it is equally important that the stone walls, which may themselves important refuges for plants, are not sprayed.

CAPITAL ITEMS

Shelter Hedge Restoration (Hp, Hg, Hp+)

20.17 Payment is made for the actual length of hedge planted. After restoration the hedge should provide a continuous, dense shelter hedge and should be managed according to the shelter hedge management guidelines.

Shelter Hedge Planting and Gapping up (Hp/Hg)

20.18 Payments are available to fill gaps in hedges or to replant complete hedges.

20.19 ***Species mix:*** Hedges may be single species or a mix of two or more species from the following list.

Pittosporum crassifolium
Euonymus japonicus
Fuchsia
Olearia traversii

Coprosma repens
Escallonia macrantha
Hebe lewisii

Olearia traversii should generally not form more than 30% of any hedge mix (since it is not as valuable for birds as other species). Other suitable species may be used according to the circumstances and with the agreement of the Countryside Stewardship Facilitator.

20.20 **Positioning:** The original pattern of parallel hedges and strips should be restored. Replacement planting should be along the line or as close as possible to the line of the original shelter hedge. Regenerating or existing hedge species along this line should be incorporated into the new hedge. New or further field subdivisions should not be made unless agreed by the Countryside Stewardship Facilitator. The planting of new hedges should not involve the removal of any existing stone boundaries.

20.21 ***Planting method:*** The ground should be prepared by chemical means or by cultivation. Planting must follow good arboricultural practice and should be according to the traditional method i.e. shrubs planted in single rows approximately 200 x 250mm apart. The hedge should be protected from livestock and rabbits and kept weed free. After one year all failed plants should be replaced. In subsequent years thinning may be required to achieve the desired final spacing.

20.22 ***Supplement for arable weeds(Hp+):*** In fields that have been identified as having important populations of rare native arable weeds, herbicides should not be applied to the hedge base. Ground preparation should involve cultivations only. The hedgeline should be kept weed free by the use of mulch mats. If fertilisers are applied to the new trees they should be provided in a pellet form that can be applied directly to the base of the plant rather than being more widely spread.

Field Boundaries (Wd, Br)

20.23 ***Repair and restoration:*** The pattern of small fields enclosed by drystone walls, stone-faced stone walls or stone-faced earth walls is an important component of the historic landscape of Scilly. Payments can be made for the repair or restoration of prominent or historically important walls. Most of the walls in Scilly are in relatively good condition and therefore it is envisaged that payments will be made for small scale repairs rather than full restoration.

20.24 ***Clearance of woody vegetation***: The stone walls are known to provide an important refuge for rare plants including heathland species, arable weeds as well as those more typical of stone walls such as ferns. The clearance of woody vegetation along the walls should be undertaken by cutting as opposed to spraying with herbicide. Care should be taken when removing vegetation so that the walls are themselves are not undermined.

20.25 ***Boundaries of Anciently Enclosed Land:*** For those boundaries in anciently enclosed land that appear to be, themselves, of prehistoric or medieval origin (i.e. rather than just fossilising the line of a prehistoric or medieval boundary) more detailed prescriptions are needed for their management. These lynchets and banks not only provide information on the character of early boundaries and farming methods, but can also contain

artefactual evidence or overlie buried soils rich in palaeoenvironmental evidence, including the nature of the environment in which the field system was originally laid out. Management recommendations for these boundaries include:

- a presumption against the removal of or any disturbance to such boundaries;
- a consultation procedure which ensures archaeological advice is sought prior to any proposed alteration to such a boundary (e.g. rebuilding or creation of a new gateway);
- adequate archaeological recording is provided for in the event of disturbance;
- reduction in invasive vegetation (bracken, gorse, brambles) that is obscuring early boundaries and may be causing root damage
- for early boundaries preserved under grassland within existing fields there should be a presumption against ploughing or any other ground disturbance within fields.

Tree Planting and Management (Tsp)

20.26 Payments are made for small-scale tree and shrub planting and management but not for new shelterbelts or woodland planting and management which are grant aided by the Forestry Authority.

20.27 While the creation of additional areas of tree cover will benefit Scilly's native bird population and have shelter and amenity value, widespread tree planting, particularly on the off-islands is not an objective of the Countryside Stewardship Scheme. In Scilly the landscape has been largely devoid of trees since the end of the prehistoric period and new tree planting will, therefore, only be appropriate on a very small scale and in restricted areas, for example field corners and along field boundaries within certain areas of St. Mary's. Each proposal for new planting will need to be carefully considered. As a general rule it is suggested that trees should not be planted within land identified as being anciently enclosed. Trees can also have an adverse effect on the water table and peat deposits of the wetland areas and planting should be avoided within or close to these areas. Tree planting should also avoid upstanding and known or suspected buried archaeological remains.

20.28 ***Planting:*** Tree planting must follow good arboricultural practice i.e.: using protective fencing or guards where needed and planting at the correct time (autumn/winter), without using peat. New trees should receive all necessary aftercare such as weeding and mulching. All dead plants should be replaced within the course of the agreement.

20.29 Planting should normally only include species listed below. These are traditionally species found in Scilly.

Oak	*Quercus robur*
Hazel	*Corylus avellana*
Cornish Elm	*Ulmus stricta*
English (Common) Elm	*Ulmus procera*

Dutch Elm	*Ulmus hollandica*
Wych Elm	*Ulmus glabra*
Sycamore	*Acer pseudoplatanus**

* sycamore is not invasive in Scilly, and is suitable for planting in small numbers.

Clearance of Gorse, Bramble and Bracken (Sb, Bm)

20.30 Prior to the reintroduction of grazing or haycutting to abandoned fields the control of gorse, bramble and bracken will be required. (Note: this prescription applies only to the clearance within abandoned fields. Other methods may be more appropriate for unenclosed heathland, where management of scrub, for example for birds, may in some cases be more appropriate than clearance.)

20.31 ***Gorse clearance (Sb):*** The aims should be to clear all scrub within the field, to expose boundaries and allow the field to be managed by grazing or haycropping. Gorse should be cut to as near ground level as possible with either a tractor and swipe or flail mower or by hand using chain saws and brushcutters. Care should be taken when working close to stone boundaries to ensure that they are not damaged. The cut stumps may be spot treated with a herbicide such as glyphosate, which should be carried out within one week of cutting. Where a herbicide is used the manufacturers instructions and all safety precautions should be observed. Cut material should be removed from the field and maybe burned on an approved site. The work should be carried out outside the bird nesting season. Cleared fields should be managed by hay cutting or grazing to prevent re-invasion by gorse.

20.32 ***Bracken clearance (Bm):*** Some bracken dominated fields support interesting flora such as the small adder's tongue fern *(Ophioglossum azoricum)*. For this reason bracken should be controlled by cutting rather than by chemical methods (Asulam) which will destroy all ferns.

20.33 For both bracken and gorse clearance treatments may be required over several years: payments are made for each year that work is carried out.

MANAGEMENT: TARGET AREAS

20.34 The following table (20.1), shows all management measures and capital items contained in the Countryside Stewardship Handbook (1995). These of particular relevance to Scilly are highlighted and estimated target areas for each are noted. These are broad brush estimates, intended to give general guidance to the Countryside Commission/MAFF for budgeting/planning purposes. They assume that all eligible land will be bought into the Countryside Stewardship Scheme.

Table 20.1 SUMMARY OF MANAGEMENT CODES FROM THE COUNTRYSIDE STEWARDSHIP HANDBOOK (1995)

Items particularly relevant to Scilly are highlighted. Approximate units for each are given, where possible.

Code	Management Measure	Unit (ha)
	Managing grassland	
H1	Lowland hay meadows	(grazing is preference)
Ogr	plus for Hereford and Worcester meadows 3ha or less	
H2	Upland hay meadows	
H2+	plus for meadows 5ha or less	
P1	Grazed pastures, including Culm grasslands	300 ha
Ogr	plus for Culm and Hereford and Worcester pastures 3ha or less	
P2	Upland in - bye pastures	
P4	Chalk and limestone grassland, including upland limestone	
P3	Upland rough pasture	
Gs	Grassland supplement for up to 5 years	50 ha
	Managing upland moorland	
M1+	Supplement for the first 5 years	
M2	Regenerating Heather on improved land	
M2+	Supplement for the first 5 years	
	Re-creating grassland on cultivated land	
R1	Re-creating grassland	50 ha
Rs	Re-creation supplement for up to 5 years	50 ha
	Managing lowland heath	
LH1	Base payment	200 ha
LH2	For improving quality	100 - 200 ha
LH3	Re-creating heath on cultivated land	
LHs	Heathland supplement for up to 10 years	50-100 ha
	Managing special areas	
Hi3	Restoring and managing old orchards	20 ha
P5	Restoring and managing historic water-meadows	
D	Managing sand dunes	
Ds	Dune supplement for first year	
Sm	Managing salt-marshes	
Sms	Salt-marsh supplement for first year	
F	Fen, reedbeds and carr	
Fs	Fen supplement for up to 5 years	
	Special management measures for Scilly	
He	Managing shelter hedges in bulb strips	e.g. 40,000 linear metres
Aw1	Managing abandoned fields for rare arable weeds	20 ha
Aw2	Managing field margins for rare arable weeds	80,000 linear metres

	Managing field margins	
R3	Field boundaries	
Hm	Grass margin alongside a hedge	
	Access	
ACCA	Base payment for new open access provision	
	plus:	
A	Open access in lowlands or in-bye land in uplands	
ACCL	Creation of new linear access	
	plus:	
Af	Footpaths	
Ab	Bridleways	
Ad	Paths for disabled people	
Ae	Land made available for educational visits	
Pal	Preparation of teachers' pack	

Code	Capital Item	Unit
	Hedgerow restoration (bulb strips & elm hedges)	
H1	Hedge laying	
He	Hedge coppicing	
Hg	Hedge gapping	e.g. 6,000 linear metres
Main	Hedgerow restoration maintenance payment	
Hp	Hedge planting	e.g. 1,000-2,000 linear metres
Hp+	Supplement for fields with arable weeds	eg. 500 linear metres
Hsc	Supplement for laying hedges that need substantial preparatory work and which are tall and wide	
Hf	Supplement for removing old fence posts and wires	
	Field Boundaries	
Wd	Stone wall repair	e.g. 2,000-3,000 linear metres
Wr	Stone wall restoration	
Wrs	Restoration supplement	
Tw	Top wiring	e.g. 1000 linear metres
Br	Stone-faced hedge bank repair	
Bs	Stone-faced hedge bank restoration	
Er	Earth bank restoration	
	Tree planting and management	
Tsp	Planting trees and shrubs	e.g. 1,000 -5,000 no.
Cbt	Coppicing bankside trees	
P	Pollarding	
TS	Tree surgery	
Tr	Spiral rabbit guard	
Tt	Tree tube	
Stt	Planting standard tree (historic parks only)	
Tp	Parkland guard (historic parks only)	

	Orchards		
Fp	Fruit tree pruning and restoration		
Fm	Frameworking old fruit trees		
Mt	Planting maiden fruit trees		
Sf	Planting standard fruit trees		
To	Orchard tree guard		
	Water levels and features		
S1	Soil bund		
S2	Timber sluice		
S3	Brick, stone or concrete sluice		
Dr	Ditch, dyke and rhine restoration		
C	Culvert		
Pc	Pond creation	first 100m, thereafter	
Pc+		thereafter	
Pr	Pond restoration	first 100m,	
Pr+		thereafter	
Scr	Scrape creation	first 100m	
Scr+		thereafter	
	Scrub management		
Sa	Scrub under 25% density	)	
Sb	Scrub 25% - 75% density	)	e.g. 50-100 ha
Sc	Scrub over 75% density	)	
	Bracken control		
Bm	Mechanical bracken control		e.g. 50-100 ha
Bc	Chemical bracken control		
	Fencing		
Fw	Post and wire fencing		
Fsh	Sheep fencing		
Fr	Rabbit netting		
Gr	River gate		
Gf	Field gate		
Fd	Deer fencing (historic parks only)		
Fc	Continuous iron rail fencing (historic parks only)		
	Water supply		
Ws	Water supply		
Wt	Water trough		
E	**Eyesore clearance**		
	Access		
Gb	Bridle gate		
Gk	Kissing gate		
Gd	Kissing gate suitable for disabled people		
St	Timber stile		
Ls	Ladder stile		
Wss	Step-over stile in stone wall		
Wst	Step through stile in stone wall		
Fb	Footbridge		
B	Bench		
Cp	Hard standing for car park		

Ade	Hard standing for paths for disabled people	
	Advice	
Pal	Technical advice and professional help to prepare an application	
Pah	Professional help to prepare a management plan	
Tn	Assistance with preparation of teachers' note	

PART 4:

THE CASE STUDIES

21.0 INTRODUCTION TO THE CASE STUDIES

PURPOSE

21.1 Two typical sites, one on St. Mary's and one on Bryher were chosen as case studies. These sites represent a range of landscape and historic landscape types, including enclosed farmland and unenclosed heathland and coastal edge and depict the range of conditions that might be encountered in preparing a Countryside Stewardship Application on Scilly. The sites also include land leased to tenants who were consulted earlier in this study.

The purpose of the case studies is threefold:

- firstly, they provide a model for drawing up future agreements, and contain an example format for future applications;

- secondly, the process of undertaking the case studies has provided more general guidance on preparing the application, for example the length of time needed and the extent of pre-application survey required;

- finally, the case studies also provide detail on the extent and area of management regimes and capital items to be implemented under Countryside Stewardship. This information can be used by M.A.F.F/Countryside Commission to identify levels of payment appropriate to the special conditions on Scilly.

21.2 It is important to note here that the sites chosen as case studies do not represent a single tenancy area. Both case studies include at least three different landholdings, these tenancies may also extend to other parcels of land outside the case study area. In this respect the case study sites are not representative of future applications which are likely to be targeted on individual or groups of landholdings, or even on whole islands (e.g. Tresco, Bryher). The prescriptions set out for each case study represent the 'ideal' management. If a full Countryside Stewardship Application follows, the prescriptions will subsequently need to be agreed with the individual tenants.

APPROACH

21.3 The approach developed for the case studies follows that adopted by the Countryside Stewardship agreements for St. Keverne, Cornwall. This approach targets the 'whole farm' with an emphasis on maintaining the present field pattern and boundaries - this forms the basis for a management code which is applicable to all the land on the holding. A draft management code relevant to all the enclosed land on Scilly has been drawn up and included as part of each case study. Over and above this general management code, additional management measures and capital items qualifying for extra payments have been identified for each case study.

PRESENTATION

21.4 The case studies are presented in chapter 22 (Bryher) and chapter 23 (St. Mary's). For each, the following format is adopted:

Case Study Format

Introduction
why the site was chosen, main features of interest, summary of landscape types and current management.

Statement of Objectives of the Agreement
sets out the general Countryside Stewardship objectives and site specific objectives.

Schedule 1: Countryside Stewardship Agreement Map
showing management measures and capital items to be implemented under the scheme.

. Schedule 2: Management Measures
tables setting out the management of the Agreement Land.

. Schedule 3: Capital Items
tables setting out capital works.

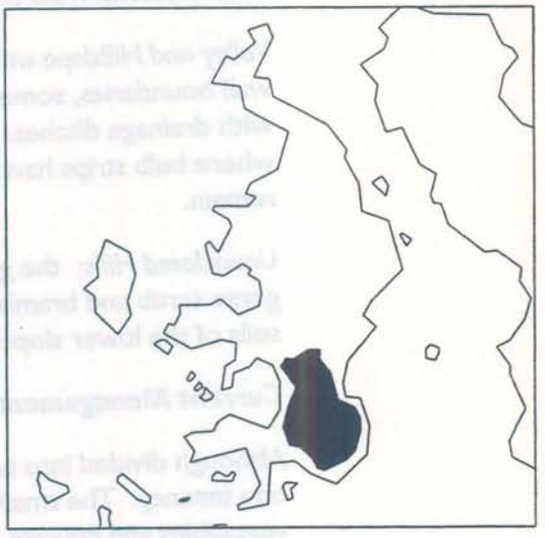
Management of the Unenclosed Land
summary description of opportunities for Countryside Stewardship

Isles of Scilly Management Code

21.5 The final chapter of this section sets out general recommendations for the implementation of a Countryside Stewardship Scheme on Scilly.

22. CASE STUDY 1: BRYHER

INTRODUCTION



22.1 The case study covers an area of 17 ha and includes the enclosed agricultural land forming the neck of land between Timmy's Hill and Samson Hill, and the unenclosed land on Samson Hill itself. The latter is leased to the Environmental Trust, and is not designated as an SSSI and not included in the English Nature R.E.S Scheme - it is therefore a candidate for Countryside Stewardship. The agricultural land is leased to 2 tenants.

Summary of Historic Character

22.2 Place name and documentary evidence suggests that this area was a focus for medieval settlement on Bryher. A find of prehistoric flint implements suggests that there was an earlier settlement in the vicinity, and relict prehistoric field systems survive below high water mark in Green Bay and Great Porth. At the end of the last century most of the farmland in this area still formed an ancient pattern, but by 1908 the slopes below Timmy's Hill and Samson Hill had become sub-divided into tiny bulb strips - wooden fencing being used as well as hedges to provide the shelter needed for flower cultivation. Since then the fencing has gone and there has been a significant loss of hedges particularly below Samson Hill. Much of this loss has occurred since the last O.S. map revision (1981) and is likely to be the result of the 1987 frost. In contrast, the central valley bottom area between the two hills has never been sub-divided to any extent and here, despite removal this century of a number of boundaries, the original ancient field pattern is still largely intact. Historic features within fields include a number of barns, two wells, the remains of field boundaries and lynchets, a clearance cairn and a number of mounds and hollows which may be historic features.

22.3 A Bronze Age Cairn group and the remains of a prehistoric field system can be found on Samson Hill and an entrance grave located on the south side of the hill at Works Carn. Three of the Cairns and the entrance grave are scheduled monuments. The Cairns and field system on Samson Hill are largely obscured by impenetrable vegetation, while the entrance grave has been partially eroded by trampling.

Landscape Types

22.4 The case study includes three landscape types. A brief description of each is given here. Further detail can be found in chapters. 7.0 and 12.0.

Hillslope and Valley Bulb Strips: intact bulb strips divided by parallel shelter hedges of euonymus, with some pittosporum, occur on the lower south facing slopes of Timmy's Hill. Dystone walls also occur in places beneath or alongside the hedges.

Valley and Hillslope with Fields: lowlying damp pasture along the valley floor, with stone wall boundaries, some with overgrown pittosporum shelter hedges alongside and other with drainage ditches. Fields extend up the lower slopes on the north of Samson Hill, where bulb strips have reverted to grass pasture, although some subdividing hedges remain.

Unenclosed Hills: the gently rounded granite hill of Samson is predominantly covered by gorse scrub and bramble, with bracken proliferating on the deeper, formerly cultivated, soils of the lower slopes. Small patches of acid grassland and heathland survive.

Current Management

Although divided into two landholdings the agricultural land is virtually all managed under one tenancy. The small fields on the slopes of Timmy's Hill are used for growing vegetables and flowers, including mixed salad crops and strawberries aimed at the summer market. The fields on the valley floor, are grazed. The farmer currently has 18 ewes, (Jacob) although he would like to increase the flock to about 70 and extend the area grazed onto Samson Hill. The valley area is grazed as one unit with an electric wire fence forming the outer boundary - this has led to some damage to the stone wall boundaries.

STATEMENT OF OBJECTIVES

This statement of objectives sets out the intention of the Countryside Stewardship Scheme for the case study area of Bryher. The specific objectives of the agreement are:

1. LANDSCAPE AND HISTORIC

To conserve and enhance the historic landscape by:

- Retaining and repairing the network of stone and earth boundaries and so maintaining the characteristic small field system.
- Maintaining the distinction between the small hedged bulb strips and the grazed pasture.
- Managing and replanting the characteristic shelter hedges in the area identified as hillslope bulbfields.
- Retaining historic features within fields by not ploughing or grubbing up.
- Consolidating 'ruins' and maintaining existing traditional farm buildings.
- Removing invasive vegetation from archaeological features.
-

2. WILDLIFE

To conserve and enhance the native plants and animals by:

- Retaining and repairing the network of boundaries.
- Maintaining a herbicide free margin in fields that are currently cultivated, to provide a habitat to allow rare arable weeds and other wildflowers to flourish.
- Managing the pasture by low intensity grazing to promote a more species-rich flora and limiting inputs of fertilisers and herbicide. No further improvements to the sward for example by drainage or reseeding to be undertaken.
- Allowing fields on the valley floor which are currently in cultivation to revert to pasture.
- Managing the unenclosed land by clearing scrub and re-introducing grazing to reinstate a heathland-acid grassland vegetation cover.

3. PUBLIC ENJOYMENT

There is no public access to the enclosed farmland. There is an extensive network of informal footpath across Samson Hill which provide views over the farmland as well as access to the archaeological sites.

To increase public enjoyment of the area by:

- Continuing to allow existing informal access on Samson Hill, proposals to extend the grazing regime to the hill should ensure that existing public access is maintained at all times.
- Clearing invasive vegetation from existing informal footpaths, from around sites of archaeological interest.

Fig. 22.1
Case Study 1: Bryher
COUNTRYSIDE STEWARDSHIP AGREEMENT MAP

SCHEDULE 1

	Case Study Boundary All land covered by Isles of Scilly Management Code	(table 22.1)
P1	Grazed pastures	(table 22.2)
R1	Re-creating grassland	(table 22.3)
	Shelter hedges- bulb strip landscape	(table 22.4)
	Walls to be repaired	(table 22.5)
	Shelter hedges to be gapped up/ replanted	(table 22.6)
LH1 LH2 LHS	Managing lowland heath	(table 22.7)
Af	Footpaths	

0 25 50 100 150 200 250m

NORTH

SCHEDULE 2: MANAGEMENT OF AGREEMENT LAND

The Agreement holder will protect and enhance the environmental value of the Agreement land by managing the land in accordance with the prescriptions set out in this schedule.

Table 22.1 Isles of Scilly Management Code

The following management prescriptions will apply to **all** Agreement land. They will be the only Management required on the fields shown below.

Field No.	Area	Code
OS 8746	0.397 ha	Special Project
OS 7943	1.012 ha	Isles of Scilly
OS 6835	0.538 ha	Management Code
Total	**1.947ha**	

MANAGEMENT

Management of the land is to be carried out in accordance with the Countryside Stewardship Isles of Scilly Management Code (see end of Chapter).

Notes: This prescription gives flexibility to allow these former bulb strips on the north slopes of Samson Hill to be returned to cultivation if needed. If grazing is to be extended to Samson Hill, it would be sensible for these fields to be included in the grazing area and to be managed as pasture - see Table 22.2.

Table 22.2 Grazed Pasture

The following management prescriptions will be carried out on the following fields.

Field No.	Area	Code
OS.8459	0.575 ha	P1
OS.7859	0.494 ha	
OS.7159	0.291 ha	
OS.7755	0.308 ha	
OS.8752	0.308 ha	
OS.8151	0.271 ha	
OS.7651	0.263 ha	
OS.7152	0.271 ha	
OS.6848	0.308 ha	
OS.7446	0.113 ha	
OS.7667 (Spt.)	0.136 ha	
OS.7142	0.397 ha	
Total	**3.6 ha**	

MANAGEMENT

Graze for a period of 10 weeks or more at a stocking density of no more than 0.6 Livestock Units* per ha. Grazing must be regulated to ensure the year's grass growth is removed but without damaging the sward through poaching or overgrazing to achieve a sward height of 3 inches by the end of the summer.

(* 1 Livestock Unit is equivalent to 0.15 lowland ewe and lamb.)

There must be no supplementary feeding of livestock on Agreement land.

To graze aftermaths on fields cut for hay or silage, to achieve an average sward height of 20-50mm (1-2 inches) throughout the winter.

Cutting must not take place before 15th July in order to permit flowers and grasses in the sward to seed. Cutting should leave a sward height of 20-50mm (1-2 inches).

Inorganic or organic fertiliser, lime, slag, herbicides or other pesticides must not be applied to Agreement land.

Limit herbicide application to the use of a weed wiper or spot treatment for the control of spear thistle, creeping or field thistle, curled dock, broadleaved dock, ragwort and, with prior agreement, nettles.

Do not disturb land by ploughing or other cultivation unless specified in the agreement.

There must be no new drainage or major modification to existing drainage systems on Agreement land. Pigs and poultry must not be allowed onto Agreement land. Management of the land is also to be carried out in accordance with attached Management Code for the Isles of Scilly.

Table 22.3 Reversion of Cultivated Land to Permanent Pasture

The following management prescription to be carried to the following fields.

Field No.	Area	Code
OS.6743 OS.6640	0.105 ha 0.125 ha	R1 - Reversion of cultivated land to permanent pasture
Total	**0.23ha**	

MANAGEMENT

In the first Agreement year establish a new grass sward using grasses selected from the following list at a sowing rate of 20kg. per ha with no one species comprising more than 40% of the mix. Where possible seeds should be of local origin.

Seed mix:

Red fescue	*Festuca rubra*
Sheep's fescue	*Festuca ovina*
Smooth meadow grass	*Poa pratensis*
Rough meadow grass	*Poa trivialis*
Common bent	*Agrostis capillaris*
Sweet vernal grass	*Anthoxanthum odoratum*

After establishing the grass sward the land must be managed as Table 22.2.

Table 22.4 Shelter Hedges in Bulb Strip Landscape

The following management prescriptions will be carried out on the following fields.		
Field No.	**Area**	**Code**
OS.6870 OS.6965 OS.7774 OS.7667 (n.pt)	0.388 ha 0.514 ha 0.502 ha 0.4065 ha	**Special project** Shelter hedges (Bulb strip landscape) He Aw1/Aw2
Total	**1.81 ha**	
Total length (all shelter hedges)	1,200m	
MANAGEMENT		

To maintain the characteristic landscape of the bulb strips by:

Replanting and restoration of shelter hedges as noted in Table 22.6.

Retain all existing shelter hedges. None should be removed without prior consent. Manage shelter hedges to retain a tall thick hedge with a dense network of fine branches to provide effective wind shelter. This will normally involve cutting the top and sides every other year. Hedges should only be cut during the months of January and February.

Maintain a herbicide (and other pesticide and fertiliser) free strip for at least 1m to either side of each field boundary/shelter hedge. The margins should be cultivated as part of normal agricultural operations i.e. at least once every 3 years. This will allow rare arable weeds and other wildflowers to flourish.

Notes: The fields to which these management prescriptions apply are currently cultivated for a variety of market garden/horticultural crops, (includes a polytunnel). There are also a small number of abandoned, bramble/bracken covered fields. The proposed management aim to maintain the characteristic landscape of the small fields and parallel shelter hedges - but does not affect how the fields are used e.g. may have very intensive horticulture.

The retention of a herbicide free area of the base of the field margins will be appropriate for fields that are currently in agricultural/horticultural use. It will not be needed on those fields which have been abandoned. If, for any reason a large number of other fields are abandoned during the agreement period, the management of field margin will need to be reviewed to ensure that appropriate conditions for arable weeds and other wildflowers are maintained in some areas.

SCHEDULE 3: CAPITAL ITEMS

Table 22.5 Field Boundary Repair (read with Fig. 22.1)

Field Boundary Descriptions for Countryside Stewardship Application:

No.	Current Description	Total Length	Management	CS Code & approx. length
1.	Drystone wall with small amount of tumbled stone	45m	Repair - replacement of tumbled stone	Wd 15m
2.	Drystone wall with small amount of tumbled stone	62m	Repair - replacement of tumbled stone	Wd 20m
3.	Drystone wall with adjacent hedge, 4.2 areas of tumbled stone	50m	Repair - replacement of tumbled stone	Wd 35m
4.	Hedge with drystone wall beneath, small area of tumbled stone.	50m	Repair - replacement of tumbled stone	Wd 2m
5.	Hedge with drystone wall beneath 2 small areas of tumbled stone	45m	Repair - replacement of tumbled stone	Wd 10m
6.	Stone-faced wall - two areas of tumbled stone	45m	Repair - replacement of tumbled stone	Wd 8m
7.	Drystone wall and adjacent ditch - 1 small area of tumbled stone	50m	Repair - replacement of tumbled stone	Wd 5m

8.	Drystone wall with adjacent hedge - 1 area of tumbled stone	46m	Repair - replacement of tumbled stone	Wd 10m
9.	Drystone wall with adjacent hedge - 1 area of tumbled stone	48m	Repair - replacement of tumbled stone	Wd 3m
10.	Drystone wall - 1 small area of tumbled stone	32m	Repair - replacement of tumbled stone	Wd 8m
11.	Stone-faced earth wall with adjacent ditch - 1 small area of tumbled stone and earth	108m	Repair of earth bank and replacement of stone facing	Br 3m
12.	Stone-faced earth wall - 1 small area of tumbled stone	30m	Repair of earth bank and replacement of stone facing	Br 5m
13.	Drystone wall - 2 small areas of tumbled stone	70m	Repair replacement of tumbled stone	Wd 10m
	Summary:	**681m**	**Total length**	**Wd 126m** **Br 8m**

Notes: The stone boundaries in this area are, on the whole, in good condition with only small lengths of tumbled stone in need of replacement. These fields are grazed by sheep, and managed as a single paddock with gates left open. Sheep are contained by an electric fence running around the perimeter. It appears that the existing damage has been caused by sheep and therefore it is essential that the condition of the stone and earth wall boundaries is monitored throughout the period of the Stewardship Agreement and that they are repaired as required.

Table 22.6 Shelter Hedge Gapping and Replanting (read with Fig.22.1)

Shelter Hedge Description for Countryside Stewardship Application:

No.	Current Description	Height (H)& Length (L)	Management	CS Code & approx. length
1.	Predominantly pittosporum hedge with small amounts of euonymus	H. 5m L. 20m	Gapping up 5%	Hg 1m
2.	Euonymus hedge with more ragged pittosporum at south end	H. 3m L. 35m	Gapping up 5%	Hg 1.8m
3.	Former Pittosporum hedge, only individual, leggy trees remaining	H. 2m L. 62m	Gapping up 70%	Hg 44m
4.	Pittosporum hedge - mostly lost	H. 2m L. 70m	Gapping up 75%	Hg 52m
5.	Lost hedge	L. 85m	Replanting 100%	Hp 108m
6.	Pittosporum hedge with extensive gaps	H. 2m L. 50m	Gapping up 50%	Hg 25m
7.	Unmaintained pittosporum/ euonymus hedge ragged, bushy outline and gaps	H. 1-2.5m L. 60m	Gapping up 10%	Hg 6m
8.	Lost hedge with small no. of regenerating pittosporum bushes	L. 13m	Gapping up 90%	Hg 12m
9.	Lost hedge	L. 50m	Replanting 100%	Hp 50m
10.	Unmaintained hedge some regenerating bushes	L. 50m	Gapping up	Hg 25m

			50%	
11.	Pittosporum hedge - 1 small gap	H. 1.5-2.5m L. 60m	Gap up 10%	Hg 6m
12.	Pittosporum hedge - with much length lost - some regenerating bushes	H. 1.5 L. 60m	Gap up 50%	Hg 30m
	Summary:	**615m**	**Total length:**	**Hg 202.8m** **Hp 51.8m**

Notes: Hedges should normally be planted as single species. On Bryher pittosporum and euonymus are the traditional species, although on other islands different species may be appropriate. Replacement planting should be along the line or, as close as possible to the line of the original shelter hedge. In fields which have been identified as being important for rare arable weeds/wild flowers it may be appropriate to make a supplementary payment to allow hedgerows to be established without herbicide application, or widespread release of fertilisers on the field margins. This is not required on the bulb strips in the case study area.

Table 22.7 Management of the Unenclosed Land

This table gives a summary of the management requirements of the unenclosed land. It will need to be worked up in detail to form part of the Countryside Stewardship Agreement.

The following management prescriptions will be carried out on the following areas		
Location	**Area**	**Code**
Samson Hill	8.5 ha	<u>Land management measures</u> LH1/LH2 LHs <u>Access measures</u> Af <u>Capital items</u> Sb Bm Tw Gf Fw/Fsh
Total	**8.5 ha**	

MANAGEMENT

The management of this area will need to be agreed in detail with the Environmental Trust but will involve management of the gorse scrub, particularly along footpaths and archaeological sites, and control of bracken, followed by the introduction of light summer grazing. Ideally, grazing will be carried out by livestock (sheep) owned by the tenant who farms the field to the north of Samson Hill. Prior to the introduction of grazing the area will need to be made stockproof.

Option for fencing include:

(i) Fencing 'in' of the cultivated land. This would involve fencing around the bulb strips on the slopes of Timmy's Hill. It would only be practical if the livestock could be closely shepherded, otherwise they are likely to graze (overgraze) the more palatable grass pasture in the valley in preference, to the coarser vegetation on Samson Hill;

(ii) Strengthening of the existing boundary: A substantial stone-faced earth wall exists around much of the lower edge of Samson Hill - presumably built as a stockproof barrier to prevent livestock straying onto the cultivated land in the valley. Localised repairs and topwiring of this boundary with supplementary fencing as required would be needed to make if fully stockproof. Gates/stiles would be required to maintain access to the footpath routes.

(iii) Electric fencing: Electric fencing is used to control stock in the valley. In the initial years of the agreement it may be appropriate to use temporary electric fencing on Samson Hill so that specific areas can be targeted for grazing.

Management recommendations for the archaeological remains on the unenclosed land were drawn up in 1988 (during the compilation of the archaeological management plan) and recently updated by English Heritage's Monuments Protection Programme field worker. When proposals are drawn up for the unenclosed land it is recommended that Cornwall Archaeological Unit and English Heritage's Field Monument Warden are consulted.

ISLES OF SCILLY: DRAFT MANAGEMENT CODE

The following management is required over the whole landholding and will form part of all Countryside Stewardship Agreements for the Isles of Scilly.

1. General Conditions: The Agreement holder undertakes to:

A: Protect and maintain all wildlife, geological, historical and archaeological features on the farm.

B. Maintain the existing pattern of the enclosed land. Removal of existing boundaries or **further** subdivision of fields by fencing or new hedges should not be undertaken.

(Note: Additional conditions to be added here, as required e.g. covering survey work, publicity etc.).

2. Access Conditions: The Agreement holder undertakes to:

C. Declare any existing informal access at application and allow this to continue.

(Notes: Further access conditions are not necessary for the enclosed land).

3. Field Boundary Conditions: The Agreement holder undertakes to:

D. Retain all existing stone and earth boundaries (including those beneath shelter hedges in the bulb strips). None should be removed without prior consent of the Countryside Commission.

E. Repair and maintain stone and earth boundaries as specified in individual Countryside Stewardship Agreements.

F. Restore and maintain the bulb strip shelter hedges as specified in individual Countryside Stewardship Agreements.

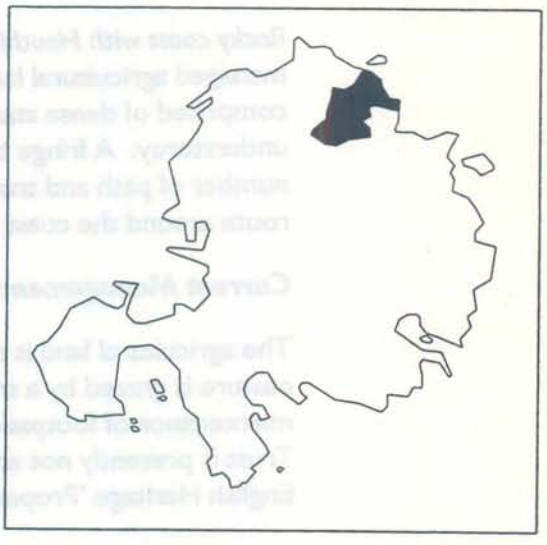
G. Not to spray stone or earth boundary walls with herbicide or other pesticides. If required, vegetation growth should be controlled by hand cutting only.

H. To maintain a herbicide free strip, of at least 1m width, along the boundaries of the cultivated land.

I. Not to undertake any alteration to the boundary walls (e.g. substantial rebuilding or creation of a new gateway) without prior consultation with the Countryside Commission and seeking appropriate archaeological advice.

23. CASE STUDY 2: ST. MARY'S

INTRODUCTION



23.1 The case study covers an area of 20 ha in the north-east of St. Mary's. It includes the enclosed agricultural land around Helvear Farm and west of Trenoweth and the unenclosed coastal fringe at Helvear Hill and Innisidgen Hill. The agricultural land is leased under three tenancies. The unenclosed land is leased to the Environmental Trust, it is not designated as an SSSI and is therefore a candidate for Countryside Stewardship.

Summary of Historic Character

23.2 Helvear is a settlement of medieval origin. The place name is first mentioned in 1500 as "Hayle Veor" and the fields to the north, south and west of the present farmyard form an ancient pattern. Those bordering on Helvear Down/Innisidgen Hill appear to have been enclosed for pasture during later post-medieval times. Much of the area to the east of Helvear remained unenclosed or unimproved until well into the twentieth century, but like the post -medieval enclosures to the north has since been taken in for flower cultivation. Nevertheless, on this east side, the farm still retains the feel of an exposed area on the edge of heathland. There is a sharp contrast between the windswept, unhedged pasture fields that immediately surround the farmyard at Helvear and the fields to the north and west which are lined, and in a few cases subdivided, by hedges and pine shelterbelts. However, despite this distinction, throughout the field system most boundaries are of stone, mainly drystone walls or stone-faced earth walls. Historic features within the enclosed land include Helvear farmhouse, two groups of barns and sheds, remains of earlier boundaries, a stone stile, a hollowed trackway, a Bronze Age standing stone and cairn and various humps and hollow that could be the remains of historic features.

23.3 The unenclosed land around Helvear Hill and Down and Innisidgen Hill is rich in archaeological sites including entrance graves, a prehistoric field system and Civil War breastwork, batteries and a blockhouse.

Landscape Types

23.4 The case study includes two landscape types. A brief description of each is given here. Further detail can be found in chapters. 7.0 and 12.0.

Undulating Agricultural Interior: All the enclosed land falls into this landscape type. The undulating fields are larger in size than those on the off-islands. Although generally enclosed by stone walls these boundaries are frequently obscured by shelterbelt and

shelter hedge plantings. Substantial belts of Monterey pine occur along the northern and eastern edges of the enclosed land.

Rocky coast with Heathland: A narrow strip of rough heathland slopes down from the managed agricultural land to the rocky coastline. The vegetation is predominantly comprised of dense stands of bracken with some stands of gorse which cover a heathy understorey. A fringe of maritime grassland runs across the top of the cliff. There are a number of path and tracks which cut across the area, forming part of an informal access route around the coast of St. Mary's.

Current Management

The agricultural land is currently in a mix of flower/bulb production and pasture. The pasture is grazed by a small herd of cattle (suckler cow and beef). Apart from the maintenance of footpath routes the unenclosed land which is leased to the Environmental Trust is presently not actively managed. Two of the entrance graves are maintained as English Heritage 'Properties in care' and are regularly mown.

STATEMENT OF OBJECTIVES

This statement of objectives sets out the intention of the Countryside Stewardship Scheme for the case study area of St. Mary's. The specific objectives of the agreement are:

1. LANDSCAPE AND HISTORIC

To conserve and enhance the historic landscape by:

- Retaining and repairing the network of stone and earth boundaries and so maintaining the characteristic pattern of small fields.
- Maintaining the distinction between the cultivated land (with hedges) and the pasture (without hedges). i.e. retaining the character of Helvear farm as a farm bordering heathland.
- Retaining historic features within fields by not ploughing or grubbing up.
- Consolidating 'ruins' (barn in Helvear farmyard) and maintaining existing traditional farm buildings (Helvear farmhouse and barn groups)
- Removing invasive vegetation from archaeological features on the unenclosed land.

2. WILDLIFE

To conserve and enhance the native plants and animals by:

- Retaining and repairing the network of boundaries.
- Maintaining a herbicide free margin in fields that are currently cultivated, to provide a habitat to allow rare arable weeds and other wildflowers to flourish.
- Managing the pasture by low intensity grazing to promote a more species-rich flora and limiting inputs of fertilisers and herbicide. No further further 'improvements' to the sward, for example by drainage or reseeding should be undertaken.
- Allowing some fields which have been improved to revert to pasture and managed by grazing.
- Managing the unenclosed land by clearing scrub and re-introducing grazing to reinstate a heathland-acid grassland vegetation cover.

3. PUBLIC ENJOYMENT

There is no public access to the enclosed farmland. There is a network of informal paths across Helvear Hill and Down and Innisidgen Hill which can be

accessed via a footpath just to the east of Helvear Farm across land which is currently grazed.

To increase public enjoyment of the area by:

- Continuing to allow existing informal access on the unenclosed land. Proposals to extend the grazing regime to the unenclosed land should ensure that existing public access is maintained at all times.

- Clearing invasive vegetation from and around existing informal footpaths and from around sites of archaeological interest.

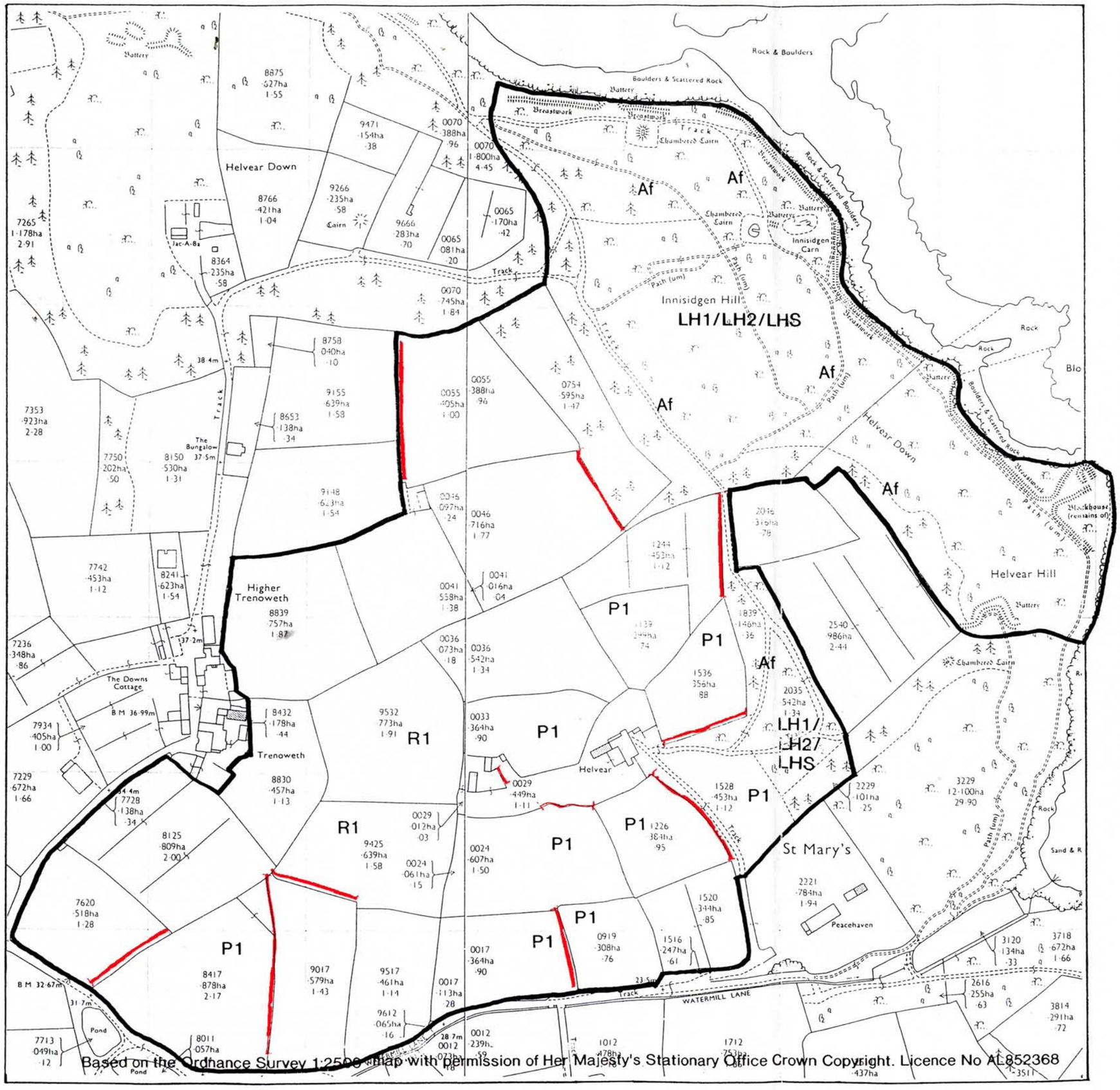


Fig. 23.1
Case Study 2: St. Mary's COUNTRYSIDE STEWARDSHIP AGREEMENT MAP

SCHEDULE 1

	Case Study Boundary All land covered by Isles of Scilly Management Code	(table 23.1)
P1	Grazed pastures	(table 23.2)
R1	Re-creating grassland	(table 23.3)
	Walls to be repaired	(table 23.4)
LH1 LH2 LHS	Managing lowland heath	(table 23.5)
Af	Footpaths	

SCHEDULE 2: MANAGEMENT OF AGREEMENT LAND

The Agreement holder will protect and enhance the environmental value of the Agreement land by managing the land in accordance with the prescriptions set out in this schedule.

Table 23.1 Isles of Scilly Management Code

The following management prescriptions will apply to **all** Agreement land. They will be the only Management required on the fields shown below.

Field No.	Area	Code
OS.0055	0.793 ha	Special Project
OS.0046	0.813 ha	Isles of Scilly
OS.0041	0.574 ha	Management Code
OS.8839	0.757 ha	
OS.8830	0.457 ha	
OS.8125	0.809 ha	
OS.7620	0.518 ha	
OS.9532	0.773 ha	
OS.9425	0.639 ha	
OS.8417	0.878 ha	
OS.9517	0.461 ha	
OS.0036	0.682 ha	
OS.1244	0.453 ha	
OS. 1520	0.344 ha	
OS. 9017	0.579 ha	
Total	**9.503 ha**	

MANAGEMENT

Management of the land is to be carried out in accordance with the Countryside Stewardship Isles of Scilly Management Code (see end of Chapter).

Notes: This prescription gives flexibility to allow these area to continue to be cultivated for bulb/flower production or put to any other horticultural/agricultural use. The shelter hedges that have been planted around the boundaries of many of these fields are generally in a good state of repair. They are not an important feature of the landscape, unlike those in the hillslope bulb strips of Bryher and therefore there are no additional incentives for their planting and management under Stewardship. If grazing is successfully re-introduced to the islands it may be appropriate for some of these fields to be returned to pasture, in which case, the management prescriptions set out in Table 23.2 should be followed.

Table 23.2 Grazed Pasture

The following management prescriptions will be carried out on the following fields.

Field No.	Area	Code
		P1
OS.8417	0.878 ha	
OS.0017	0.477 ha	
OS.0024	0.668 ha	
OS.0919	0.308 ha	
OS.1226	0.384 ha	
OS.0029	0.449 ha	
OS.0033	0.364 ha	
OS.1536	0.356 ha	
OS.1139	0.299 ha	
OS. 1528	0.453 ha	
Total	**4.183 ha**	

MANAGEMENT

Graze for a period of 10 weeks or more at a stocking density of no more than 0.6 Livestock Units per ha. Grazing must be regulated to ensure the year's grass growth is removed but without damaging the sward through poaching or overgrazing to achieve a sward height of 3 inches by the end of the summer.

There must be no supplementary feeding of livestock on Agreement land.

To graze aftermaths on fields cut for hay or silage, to achieve an average sward height of 20-50mm (1-2 inches) throughout the winter.

Cutting must not take place before 15th July in order to permit flowers and grasses in the sward to seed. Cutting should leave a sward height of 20-50mm (1-2 inches).

Inorganic or organic fertiliser, lime, slag, herbicides or other pesticides must not be applied to Agreement land.

Limit herbicide application to the use of a weed wiper or spot treatment for the control of spear thistle, creeping or field thistle, curled dock, broadleaved dock, ragwort and, with prior agreement, nettles.

Do not disturb land by ploughing or other cultivation unless specified in the agreement.

There must be no new drainage or major modification to existing drainage systems on Agreement land.

Pigs and poultry must not be allowed onto Agreement land.

Where Livestock Units (LU) are referred to in the management prescriptions, the following units should be used to calculate stocking rates:

Dairy cow	1.0
Beef cow (excl. calf)	0.8
Cattle	
over 2 years old	0.8
1 - 2 years old	0.6
under 1 year old	0.4
Lowland ewe and lamb	0.15
Ram and tegs over 6 months	0.15
Hill ewe and lamb	0.1

Management of the land is also to be carried out in accordance with attached Management Code for the Isles of Scilly.

Table 23.3 Reversion of Cultivated Land to Permanent Pasture

The following management prescription to be carried to the following fields.

Field No.	Area	Code
e.g. 9532 9425	0.773 ha 0.639 ha	R1 - Reversion of cultivated land to permanent pasture
Total	**1.412 ha**	

MANAGEMENT

In the first Agreement year establish a new grass sward using grasses selected from the following list at a sowing rate of 20kg. per ha with no one species comprising more than 40% of the mix. Where possible seeds should be of local origin.

Seed mix:	
Red fescue	Festuca rubra
Sheep's fescue	Festuca ovina
Smooth meadow grass	Poa pratensis
Rough meadow grass	Poa trivialis
Common bent	Agrostis capillaris
Sweet vernal grass	Anthoxanthum odoratum

After establishing the grass sward the land must be managed as Table 23.2.

Notes: This prescription would be appropriate for any of the fields which are in currently in grass ley or have been used for bulb/flower cultivation. See table 23.1.

SCHEDULE 3: CAPITAL ITEMS

Table 23.4 Field Boundary Repair (read with Fig. 23.1)

Field Boundary Descriptions for Countryside Stewardship Application:

No.	Current Description	Total Length	Management	CS Code & approx. length
1.	Stone-faced earth wall with small amount of tumbled stone	60m	Repair of earth bank and replacement of stone facing	Br 10m
2.	Stone-faced earth wall with adjacent hedge, small amount of tumbled stone at corner	62m	Repair of earth bank and replacement of stone facing	Br 10m
3.	Stone-faced earth wall with tumbled stone	120m	Repair of earth bank and replacement of stone facing	Br 10m
4.	Drystone wall with small area of tumbled stone.	52m	Repair - replacement of tumbled stone	Wd 10m
5.	Stone-faced earth wall - three small areas of tumbled stone	58m	Repair of earth bank and replacement of stone facing	Br 12m
6.	Stone-faced earth wall - two areas of tumbled stone	52m	Repair of earth bank and replacement of	Br 15m

			stone facing	
7.	Stone-faced earth wall - 1 small area of tumbled stone	55m	Repair of earth bank and replacement of stone facing	Br 3m
8.	Stone-faced earth wall with adjacent hedge, small area of tumbled stone	54m	Repair of earth bank and replacement of stone facing	Br 3m
9.	Drystone wall with adjacent hedge - 1 area of tumbled stone	100m	Repair - replacement of tumbled stone	Wd 3m
10.	Drystone wall forming part of walled yard, 1 small area of tumbled stone	7m	Repair - replacement of tumbled stone	Wd 3m
11.	Base course of former stone-faced earth wall (west part) and boulder wall (east part) - consolidate and retain.	20m	Consolidate and retain	
	Summary:	**640m**	**Total length:**	**Wd 16m** **Br 63m**

Notes: The boundaries in this area are predominantly stone-faced earth walls. They are generally in a good condition with small areas of tumbled stone and earth in need of repair. In one instance (boundary no.11) the boundary is being gradually removed by the farmer so that only a boulder wall/base course remains. This boundary is a vital part of the ancient field pattern since it forms the south side of the farmyard enclosure at Helvear. Complete repair of this boundary will not be feasible, it should be consolidated and retained in its present form.

It is essential that the condition of the stone and earth wall boundaries is monitored throughout the period of the Stewardship Agreement, particularly in fields that are to be grazed, and that they are maintained and repaired as and when required.

Table 23.5 Management of the Unenclosed Land

This table gives a summary of the management requirements of the unenclosed land. It will need to be worked up in detail to form part of the Countryside Stewardship Agreement. In practice its is likely that all the unenclosed coastal edge on St. Mary's which is leased to the Environmental Trust and not notified as SSSI (equivalent to 105 ha) will form one agreement area. This table is therefore only illustrative of the type of management that should be applied.

The following management prescriptions will be carried out on the following areas

Location	Area	Code
		Land management measures
Innisidgen Hill Helvear Down Helvear Hill	}7.9 ha	LH1/LH2 Lhs
&		Access measures
OS.1839 OS.2035	0.146 ha 0.542 ha	Af
		Capital items
		Sa Bm Tw Gf Fw/Fsh Af
Total	**8.588 ha**	

MANAGEMENT

The unenclosed land in the case study area includes the coastal fringe around the edge of the island and a finger of land which extends to Helvear farmhouse, providing access from Watermill Lane to Innisdigen Hill.

Detailed proposals for the management of this area will need to be drawn up with the Environmental Trust. They are likely to include management of dense stands of bracken and gorse, particularly along footpaths. Bracken should be controlled by rotational cutting of agreed areas, ideally followed by light summer grazing. Prior to the introduction of grazing consideration will need to be given to stock proofing. Additional measures to improve the heathland quality as well as maintaining and enhancing public access will also be applicable.

Management recommendations for the archaeological remains on the unenclosed land were drawn up in 1988 (during the compilation of the archaeological management plans) and recently updated by English Heritage's Monuments Protection Programme field worker. When proposals are drawn up for the unenclosed land it is recommended that Cornwall Archaeological Unit and English Heritage's Field Monument Warden are consulted.

ISLES OF SCILLY: DRAFT MANAGEMENT CODE

The following management is required over the whole landholding and will form part of all Countryside Stewardship Agreements for the Isles of Scilly.

1. General Conditions: The Agreement holder undertakes to:

A: Protect and maintain all wildlife, geological, historical and archaeological features on the farm.

B. Maintain the existing pattern of the enclosed land. Removal of existing boundaries or **further** subdivision of fields by fencing or new hedges should not be undertaken.

(Note: Additional conditions to be added here by the facilitator, as required e.g. covering survey work, publicity etc.).

2. Access Conditions: The Agreement holder undertakes to:

C. Declare any existing informal access at application and allow this to continue.

(Note: Further access conditions are not necessary for the enclosed land).

3. Field Boundary Conditions: The Agreement holder undertakes to:

D. Retain all existing stone and earth boundaries (including those beneath or along side shelter hedges in the bulb strips). None should be removed without prior consent of the Countryside Commission.

E. Repair and maintain stone and earth boundaries as specified in individual Countryside Stewardship Agreements.

F. Restore and maintain the shelter hedges in the designated bulb strips as specified in individual Countryside Stewardship Agreements.

G. Not to spray stone or earth boundary walls with herbicide or other pesticides. If required, vegetation growth should be controlled by hand cutting only.

H. To maintain a herbicide free strip, of at least 1m width along the boundaries of the cultivated land.

I. Not to undertake any alteration to the boundary walls (e.g. substantial rebuilding or creation of a new gateway) without prior consultation with the Countryside Commission and seeking appropriate archaeological advice.

24.0 IMPLEMENTATION

24.1 This chapter summarises experience gained from the case studies and gives guidance on the practical procedures that should be followed in implementing a Countryside Stewardship Scheme on the Islands.

THE ROLE OF THE FACILITATOR

24.2 A facilitator will be appointed to put forward applications for Countryside Stewardship on behalf of the tenants. The facilitator will play two key roles. Firstly, to publicise and sell the Countryside Stewardship Scheme to the tenants (research undertaken as part of this study has indicated that tenants have little or no knowledge of the scheme at present) and secondly, to assist the tenants in drawing up agreements and to act as a link between the tenants and the Countryside Stewardship Advisor at M.A.F.F.

24.3 In some cases it is recommended that the facilitator should target areas larger than a single tenancy. For example:

- Bulb strips - in areas where the key landscape character is determined by the pattern of shelter hedges, piecemeal restoration and management of individual hedges will have little overall impact. It is recommended that the facilitator targets large areas of, or the whole of this landscape type on each island. This may be achieved through individual agreements with each tenant or one multi-tenant agreement.

- Grazing - on land where the re-introduction of grazing is proposed it is recommended that wherever possible the agreement should seek to include both enclosed and unenclosed land. This will require close consultation with the Environmental Trust. On the smaller off islands it maybe practical for a single tenant or group of tenants to obtain livestock to graze all the targeted areas on the island, rather than making individual agreements for each landholding.

24.4 The degree of involvement of the facilitator in drawing up individual agreements will vary according to the skills, knowledge and enthusiasm of the tenants.

LEVELS OF PAYMENT

24.5 For Stewardship to be successful it is essential that the grant payments are realistic and tailored to reflect the special conditions on the islands. These include the small tenancy areas (compared to the mainland) and corresponding very small field sizes. It is recommended that M.A.F.F/Countryside Commission carry out a separate study to establish appropriate levels of grant for Scilly.

EXTENT OF PRE-APPLICATION SURVEY

24.6 For the case studies detailed surveys were undertaken by two experienced personnel - an archaeologist and a landscape manager. The survey consisted of sketch plotting onto 1:2,500 O.S base maps, and recorded the following information:

(i) construction and condition of all stone and earth boundaries.
(ii) historic features within fields and any buildings in need of repair/consolidation.
(iii) current management of the land.
(iv) type and condition of all shelter hedges.

24.7 Approximately 5 hours were spent on each case study site i.e. 10 staff hours. This was equivalent to between 1 and 2 hours per hectare. The results of the Archaeological Survey are contained in Appendix F.

24.8 In an ideal world this level of detail, supplemented by an ecological survey would be recorded for each area prior to a Countryside Stewardship Application being prepared. This information would act as a baseline against which the success of the scheme could be monitored. However, given the relatively straight forward nature of the management prescriptions and recognising the need to target payments towards practical land management, as opposed to administration and survey costs, it is considered that level of detail collected as part of subsequent pre- application surveys could be reduced.

24.9 It is recommended that for the purpose of preparing a Countryside Stewardship application the following level of detail would be sufficient:

(i) the construction and condition of stone/earth boundaries that are in need of repair. For example, in bulb strip areas where repair is not a priority a survey of stone boundaries is not required.

(ii) the condition of shelter hedges in the bulb strips only, since shelter hedge planting and management is not priority in any other areas.

(iii) areas where particular management measures may be appropriate i.e. grazing, hay cutting or conversion to grassland.

(iv) extent of scrub clearance required.

24.10 It is suggested that this information could relatively easily be supplied by the tenant, with input and guidance by the facilitator as required.

NEED FOR DETAILED ARCHAEOLOGICAL SURVEY

24.11 Given that a prime objective of the Countryside Stewardship Scheme is to conserve and enhance the historic landscape character of Scilly it is recommended that a full archaeological survey of the enclosed land is undertaken. (Only a preliminary assessment of the resource was undertaken as part of this study). English Heritage should be approached as a possible source of funding.

TIME REQUIRED TO PREPARE AN APPLICATION

24.12 An estimation of the time required to prepare a Countryside Stewardship is made here. The information is based on the experience from the case studies. It does not allow for consultation and negotiation with the tenant.

Pre Application Survey	allow 1 hour per 5 ha
Preparation of Application	allow 5 hours

EXTENT OF ADDITIONAL CONSULTATION/LIAISON REQUIRED

24.13 Given that the results of any further detailed archaeological survey of the enclosed land are unlikely to be available in the initial years of Stewardship, it is recommended that the Isles of Scilly Assistant Planning Officer (Conservation)/English Heritage Field Monument Warden and Cornwall Archaeological Unit are jointly consulted on each application. Close liaison will also be required with the Environmental Trust.

MONITORING

24.14 Monitoring of the effect of Stewardship will be required. This is particularly important where it is proposed to re-introduce grazing. Monitoring will be required to:

- establish the effect on flora and fauna.
- ensure that grazing is not having an adverse impact on archaeological remains i.e. earthworks are not being eroded or stone structures tumbled.
- ensure that the management prescriptions are appropriate. Some flexibility in applying management may be required particularly regarding grazing (stocking densities) and management to enhance rare arable weeds

24.15 A detailed monitoring framework will need to be drawn up. It is envisaged that the work could be undertaken by the Environmental Trust and the Field Monument Warden/Conservation Officer. Estimated time inputs are 1 day field survey per island, each year. More detail monitoring and surveys may need to be undertaken by the BSBI (flora) or RSPB (birds).

APPENDICES

APPENDIX A: METHOD STATEMENT

A1 The preparation of this historic landscape assessment and management strategy for the Isles of Scilly involved a number of specific tasks which are briefly described below:

Task 1: Information Collection and Consultation

A2 The first task involved the collation of information from a desk study of existing sources. These included published and unpublished texts on the history, archaeology, geography and natural interest of the area as well as guidebooks, maps, statutory plans and other planning strategies and air photographs. A full list of references in included in Appendix D.

A3 At this early stage of the study we also consulted with a wide range of organisations including English Nature, the Council of the Isles of Scilly, The Isles of Scilly Environmental Trust, English Heritage, the National Farmers Union and the St. Martin's Farmer's Interest Group. (The full list of consultees is contained in Appendix B). The purpose of the consultation exercise was to gather background information, discuss current management issues and threats/forces for change and opportunities relating to future management. The implementation of a future Countryside Stewardship Scheme, such as the possible role of a facilitator was also considered as part of these discussions.

A4 In parallel with the literature review and consultation, a systematic analysis of map information was undertaken. Maps of geology, landcover, topography, nature conservation interest, and historic landscape information were prepared.

A5 The method used to select and map Scilly's historic landscape types followed that developed for the recent assesment of Cornwall (Countryside Commission, 1995). There were a few differences which were the result of variations in landscape character, sources of information and the scale of mapping (1:10,000 in Scilly as opposed to 1:50,000 in Cornwall).

A6 Sources of information included:

- Ordnance Survey 1981 1:10,000 maps.
- Ordnance Survey 1988 and 1908 25" maps.
- Geological Survey 1:25,000 maps
- Air photographs including CAU's 1987 flight
- 1652 Parliamentary Survey
- Professor Charles Thomas' Placename Index
- The Isles of Scilly Sites and Monuments Record
- The Isles of Scilly Environmental Management Plan

A7 The information was plotted onto 1:10,000 scale bases to produce draft maps of the historic landscape types and landscape types which provided a basis for the field survey.

Task 2: Field Survey

A8 The field survey was carried out by a team of two experienced surveyors with skills in archaeology, landscape assessment and land management. The aims of the survey were to:

- refine the draft historic landscape types and landscape types identified through the desk study;
- describe the attributes that give each area its special character.
- identify management needs and opportunities.

A9 The field survey was undertaken using 1:10,000 scale O.S maps.

Task 3: Farmer Survey

A10 To build on information provided through consultations with the NFU and farmers' groups face to face interviews were held with a sample of 18 agricultural tenants (around 30% of the total in the islands). The sample was chosen in consultation with the Land Steward to represent the range of farming enterprise and farmer type across St. Mary's and the four inhabited off-islands. A full list of the agricultural tenants that were consulted is provided in Appendix C. A structured questionnaire was used as a basis for the interview.

Task 4: Preparation of the Management Strategy

A11 On completion of the field survey, the next step involved a process of analysis and review of data in order to finalise the landscape classification. The management strategy was developed on an island by island basis for each of the constituent landscape types.

Task 5: Case Studies

A12 Two case studies areas, one on St. Mary's and one on Bryher were selected to represent the different landscape types found on the islands. An additional field visit was made to each area (by a landscape manager and archaeologist). The recommendations made in the management strategy were applied at this detailed level and a prototype Countryside Stewardship Application for each area was drawn up. This included the preparation of a general management code for the enclosed land of Scilly.

APPENDIX B: CONSULTEES

The following individuals and organisations were consulted during the preparation of this report:

Isles of Scilly Council

Philip Hygate	Chief Executive
Bryan Lowen	Chief Technical Officer
Steve Watts	Tourism and Development Officer
Gillian Arbery	Assistant Planning Officer (Conservation)

Isles of Scilly Environmental Trust

Andrew Gibson	Director
William Wagstaff	Conservation Officer

M.A.F.F.

Mike Hyman	Regional Officer, South West Region

English Nature

Jeremy Clitheroe	Conservation Officer, Devon, Cornwall and Isles of Scilly Team.

English Heritage

Rob Iles	Inspector of Ancient Monuments

Forestry Authority

Ken Buswell	Conservator, West Country

Isles of Scilly NFU

P. & D. Rogers	Secretary

Mainland Marketing

Andrew May	Secretary

St. Martin's Farming Interest Group

Alan Humphries	Secretary

Trenoweth R & D Station

John May	Chairman
Andrew Thompsett	Consultant

Ornithological Consultant

Peter Robinson

APPENDIX C: FARM SURVEY

The following tenants participated in the farm survey. The sample was selected, in consultation with the Duchy to reflect the main types of farm enterprise in the Islands. The questionnarie used as a basis for the interview is attached.

Bryher

D & B Andrews	Hillside Farm
G. Taylor	Veronica Farm
E. Langdon	Glenhope

St. Agnes

F. Hicks	The Lighthouse
M. Hicks	Westward, Lower Town
R. Legg	Annet Farm

St. Martin's

S. Walder	Carron Farm
A. Humphries	Middle Town Farm
T. Perkins	Connenmara

St. Mary's

A. May	Seaways Farm
J. May	Peninnis Farm
K. Hale	Tremelethen Farm
C. Pender	Rocky Hill Farm
G. Mumford	Salakee Farm
D. Wright	Green Farm
F. Hoskens	Trenoweth Farm
T. Bennett	Borough Farm

Tresco

R. Dorrien-Smith	Tresco Estate

ISLES OF SCILLY MANAGEMENT PLAN

FARMER INTERVIEW FORM

PART 1 : GENERAL INFORMATION

Reference No	
Name of Farmer	
Business Name	
Address	
Telephone Number	

PART 2 : FARM INFORMATION

1.0 LAND FARMED

1.1 Total farmed and location. For each separate area record amount of land and tenure.

Unit/location	Area (ac.)	Area (ha.)	Occupation date
1			
2			
3			
4			

1.2 Any other land/property.

Property	Type	Location	Use

1.3 Cropping and stocking overview

Crop/stock	Area (ha/ac)	System
Unused land		

2.0 CROPPING MANAGEMENT

2.1 Rotation

2.2 Planting practice

2.3 Husbandry

2.4 Use of sprays etc.

2.5 Harvesting

Timing

Methodology

Labour

Storage

2.6 Area of woodland (hectares by type - broad-leaved/coniferous/mixed: plantation/non-plantation)

	Type	Area (ha)	Management
1			
2			
3			

2.7 Crop Quota (If applicable)

2.8 Crop Marketing

	Product/quantity	This year	Future expectations	Reason for Change
1				
2				
3				
4				

2.9 Views on marketing on/off the Islands

3.0 STOCKING

3.1 Livestock kept

	1995	Historic	Future anticipations	Reason for any change
Dairy				
Followers				
Bulls				
Suckler Cows				
Beef 0-1 year				
Beef 1-2 year				
Beef 2 + year				
Ewes				
Lambs				
Rams				
Sows				
Gilts				
Young stock				
Boars				
Horses				
Poultry				
Other				

3.2 Quota/Premia details

	Allocated	Leased In/Out	Brought In/Sold*
Milk Quota			
Sheep Quota			
Suckler cow quota			

3.3 Livestock System (brief description)

	Now	Future	Reason for change
Dairy			
Beef Cattle			
Sheep			
Other			

3.4 Livestock Marketing

	This year	Future	Reason for change
Beef			
Sheep			
Others			

3.5 Attitudes to livestock

4.0 NON-FARMED LAND

Area and land use	Management	Future expectations

5.0 BUILDINGS

Type (Brief Description)	Age	Use		Reason for Change
		Now	Future	

6.0 MACHINERY

6.1 Schedule - type, age, level of use

Type	Age	Use level	Flexibility	Anticipations

7.0 LABOUR

7.1 Labour force

	Now	Future	Level of use and spare resources or time
Farmers			
FT			
PT			
Other family			
FT			
PT			
Non-family			
FT			
PT			
Casual			

7.2 Use of Contractors and casual labour
(Please indicate what task they are used for)

Now	future	Changes

7.3 Is the contract/casual labour used local eg from Scilly?

8.0 CAPITAL

8.1 How would you describe the performance of your business?

8.2 What factors do you feel have influenced the performance of your business ?

9.0 FARM DIVERSIFICATION

9.1 Activities

Brief Description of Diversified Enterprise	Length of Operation

9.2 To what extent do these contribute to the overall performance of the business?

10.0 **CHANGES TO THE FARMING SYSTEM(recent/potential)**

10.1 Interviewer to note any of the following:

a) increased intensity of farming on any areas of the farm;

b) decreased intensity of farming on any areas of the farm;

11.0 **COUNTRYSIDE STEWARDSHIP**

11.1 Views of conservation grant schemes

11.2 Knowledge of CSS

11.3 Attitude to CSS scheme

11.4 Views on the following potential changes

Livestock	
Abattoir	
Subsidised livestock travel	
Managed conservation areas	
Market groups	
Island brands	
Access	

11.5 Where is the future for your farm?

11.6 Are there any aspects of land management that could not/should not be considered?

11.7 What are your views on the responsibilities for CS management if implemented?

11.8 Who should administer the CS if implemented?

THANK YOU!

APPENDIX D: KEY REFERENCES

The key references used in the preparation of the report are listed below. They are arranged in groups relating to specific chapters in the report.

Physical Influences (Chapter 2.0)

Brandon, R. 1994. Isles of Scilly Pilot. Imray Laurie Norie and Wilson Ltd.

Grigson, G. 1977. The Scilly Isles. Duckworth.

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Current Agricultural Management (Chapter 5.0)

Atlantic Consultants et al, Economic Development Strategy for the Isles of Scilly for a Sustainable Environment (pre-publication draft). March 1995.

Isles of Scilly Council. Rural Development Strategy. 1994.

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Other Plans and Strategy Documents

The following additional plans and strategy documents were also reviewed:

Isles of Scilly Council. 199 . Local Plan. 1st. Alteration Consultation Document.

Isles of Scilly Council. 1994. Rural Development Strategy.

Graham Moss Associates. 1984. The Isles of Scilly Comprehensive Land Use and Community Development Project.

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Isles of Scilly Council. 1994. Rural Development Strategy.

Graham Moss Associates. 1994. The Isles of Scilly Countryside Land Use and Community Development Project.

APPENDIX E: HISTORIC CHARACTER OF THE ENCLOSED LAND ON EACH ISLAND

St Agnes

E1 On the basis of field pattern, the enclosed land on St Agnes divides into the following historic landscape:

AEL	40%
LPE	15%
Bulb strips	40%
Modern	5%

E2 AEL is now almost totally confined to the edges of the presently enclosed land, but since virtually all the bulb strips on St Agnes are sub-divisions of AEL, it would originally have been much more extensive, perhaps only excluding the area around Downs and west of Carter's Lane which appears to have been heathland until later post-medieval times. A large proportion of the AEL appears to be prehistoric in origin (north of Higher Town and bordering on Wingletang Down). The AEL is formed almost exclusively by stone boundaries - drystone walls, or stone-faced stone walls, and this and its more irregular pattern makes it contrast sharply with the neatly hedged bulb strips (though stone boundaries also survive within the latter). The small amount of LPE and modern enclosures on St Agnes are formed by a combination of stone boundaries and hedges, with the occasional length of post-and-wire fencing. Another 19th or 20th century feature is the building of Cornish 'hedges' (stone-faced earth walls) along the sides of some roads and trackways.

Bryher

E3 The enclosed land on Bryher divides into the following historic landscape types on the basis of field pattern:

AEL	40%
LPE	5%
Bulb strips	50%
Modern	5%

E4 The main visual distinction within the enclosed land is between the narrow, neatly hedged bulb strips and the rectilinear or irregular shaped stone-walled enclosures of the AEL. There are three main blocks of the latter. That below Shipman Head Down is prehistoric in origin, contemporary with the system on the Down itself, while those lying south-west of The Town and between Timmy's and Samson's Hill are probably medieval or later. Boundaries within the prehistoric AEL are generally drystone walls and stone-faced stone walls, with some lynchetting along boundaries. The northern edge of this field system, where it borders on the downland, is formed by a very substantial stone wall, the result of more recent rebuilding to make this boundary stockproof. There is very little LPE or modern enclosures on Bryher. Most of the bulb strips are sub-divided AEL and boundaries consist mainly of hedges, with intermittent drystone walls.

St Martin's

E5 The enclosed land on St Martin's divides into the following historic landscape types based on field pattern:

AEL	15%
LPE	5%
Bulb strips	60%
Modern	20%

E6 St Martin's has much less AEL and a greater proportion of bulb strips than the other islands, as well as a larger percentage of modern enclosures. The main visual distinction is between the narrow hedge-lined bulb strips of the island's more sheltered south slopes and the larger rectilinear stone-walled pasture fields (AEL-modern) along its east-west ridge. There are two main areas of AEL - the largest, north-east of Higher Town is probably prehistoric in origin, while the smaller, north-east of Lower Town may be medieval or later. Most AEL boundaries are drystone walls, with a few stone-faced stone walls. Within the prehistoric AEL there is evidence for lynchetting along existing boundaries and occasional lynchets and low banks within fields. On the outer edge of the main block of AEL the boundary has in more recent times been partly rebuilt as a stone-faced earth wall (Cornish 'hedge') to make it stockproof. The LPE and modern enclosures on St Martin's represent reorganisation of AEL, and, in a few cases, (for example on John Batty's Hill), new enclosure of heathland. Drystone walls are predominant, with some 20th century post-and-wire fencing. Most of the bulb strips have been formed by sub-division of AEL, with hedges the dominant boundary type, but with some drystone walling and in one instance, wooden panelling.

St. Mary's

E7 On the basis of field pattern the enclosed land on St Mary's breaks down into the following landscape types:

AEL	70%
LPE	15%
Bulb strips	10%
Modern	5%

E8 There is a much greater percentage of AEL on St Mary's than any other islands and much fewer bulb strips, flower cultivation having as a general rule taken place within AEL (and LPE) fields rather than within sub-divisions of the latter or newly laid out bulb strips. Within the AEL stone boundaries are mainly drystone walls, but with stone-faced stone walls and, less commonly, stone-faced earth walls (bank-like in places) also occurring. Stone boundaries are sometimes lined with hedges or elm trees, and in some cases the boundary is formed by a hedge or line of trees alone - suggesting, if these are boundaries of ancient origin, that the earlier stone wall may have been robbed out for use elsewhere. Much of the AEL has a medieval feel about it, particularly the gently sloping basins of land around Higher and Lower Moors, but pockets of prehistoric AEL also exist (e.g. north of Mount Todden Down and on the northern edge of Peninnis Head). Within the prehistoric AEL, lynchets occur along some boundaries and within some existing fields.

The outer boundary of the Peninnis system has been made stock-proof in more recent times. Interestingly the form of this boundary, a stone-faced earth wall with vertically set stones on top, is similar to 19th or 20th century walling on Tresco.

E9 The LPE on St Mary's mainly represent new intake (e.g. along the swathe of high ground around and south of Telegraph Hill and north of Helvear Farm), but there is also some modification of AEL (e.g. north of Old Town or at Carn Wrean near Pelistry). The boundaries within the LPE are mainly drystone walls, but with some stone-faced earth walls and some hedging and conifers along stone boundaries.

E10 Modern enclosures of drystone walls and stone-faced earth walls consist of a little bit of new intake (e.g. north of Higher Trenoweth) but mainly modification of AEL and, more occasionally, LPE. A type of 20th century enclosure unique to St Mary's is the garden allotment - a block of these with sub-divisions of hedges and wooden panelling extends along the east side of Porth Cressa, south of Hugh Town.

E11 Trees feature more in the St Mary's landscape and, unlike on Tresco, deciduous trees (elms) are as common as pines. They not only line roads and trackways but have also been planted as windbreaks around the edges of fields. The general impression is a more wooded landscape than on the other islands.

E12 Owing to the widespread fossilisation of the AEL (and LPE) field pattern on St Mary's and the planting of hedges and trees along the edges of these fields (as well as along newly laid out bulb strips), the enclosed land appears more homogenous than on other islands. Where visual distinctions occur they are usually between hedge/tree-lined fields (of any age) and AEL, LPE or modern fields enclosed only by stone boundaries.

Tresco

E13 The enclosed land on Tresco divides into the following historic landscape types, based on field pattern:

AEL	20%
LPE	20%
Bulb strips	40%
Modern	20%

E14 AEL on Tresco is not nearly as intact as on the other islands and only just merits being still classified as such. It has undergone much modification as a result of 19th or 20th century removal of boundaries and rebuilding of walls to an estate style consisting of neatly built stone-faced stone walls (or stone-faced earth walls) with vertically-set stones on top. Most of the stone boundaries on Tresco conform to this style, including all those within the AEL at Dolphin Town, west of Abbey Hill and in the south-east corner of Great Pool. However, amongst the block of probably medieval AEL around Borough, boundaries are also of drystone walls (with some hedging). Within the Dolphin Town and Borough AEL lynchets occasionally occur along existing boundaries and low lynchets and banks within some existing fields.

E15 LPE on Tresco have both taken in areas of former rough ground (e.g. at Gimble Porth) and reorganised AEL (e.g. south-west of Blockhouse Point). In both cases boundaries are of the standard Tresco wall type described above. Blocks of bulb fields are also enclosed by this walling, but sub-divided by hedges and lines of trees. These fields are larger and less uniform than the blocks of small narrow parallel strips on other islands - a reflection of the fact that they have replaced any pre-existing AEL rather than been formed by sub-division of it.

E16 Modern enclosures of drystone walling and post-and-wire fencing have replaced AEL in a couple of places, including at Dial Rock, where a Romano-British settlement and field system now survive as hut platforms, lynchets and banks within the 20th century fields.

E17 On Tresco it is less easy to find the kind of clear distinctions between blocks of enclosed land that are found on other islands. This is because the extant AEL has undergone such drastic modification and the bulb strips do not conform to the usual homogenous pattern. Nevertheless, a broad distinction can still be seen between the hedge-lined cultivated bulb fields and areas of enclosed pasture (whether AEL, LPE or modern), and the AEL on the east-facing slope south of Dolphin Town, despite considerable modification, still stands out as a medieval field system.

APPENDIX F: CASE STUDIES - ARCHAEOLOGICAL SURVEY NOTES

CASE STUDY 1: BRYHER

Field boundaries

F1 The field boundaries fall mainly into three types:

(i) **Stone (and earth) boundaries** - drystone walls, stone-faced earth or stone walls and earth banks (created by earth from ditches being piled against and on top of stone walls. A considerable number of the stone boundaries revet or are built on top of lynchets. Ditches dug along some boundaries appear to be a more recent attempt to drain the central low-lying area, or in the case of those to the west, to stockproof an existing boundary. Several stone boundaries have hedges along the side.

(ii) **Hedges** - it should be noted that these occasionally fossilised the line of a stone boundary now no longer surviving.

(iii) **Hedges with drystone walls beneath them** - the latter being the remnants of earlier stone boundaries.

Historic Features

F2 Historic features within fields include a number of barns, two wells, the remains of field boundaries and lynchets, a clearance cairn and a number of mounds and hollows which may be historic features.

Condition of the historic features

F3 On the whole the stone boundaries are in good condition, but in a number of places they have become tumbled. Some of the barns are still in use, but three of them survive only as unroofed ruins. The wells and other features appear in a stable condition.

Management Recommendations

1. Maintain existing distinction between bulb strips below Timmy's Hill and central pasture fields, but allow strips below Samson Hill to revert back to anciently enclosed land.

2. Retain all stone (and earth) boundaries.

3. Repair tumbled sections of stone boundaries.

4. Monitor condition of stone boundaries and repair as required (NB: very important since it appears to be the sheep presently grazing here that are causing the damage).

5. Retain historic features within fields.

6. Consolidate walls of ruined barns (NB: Gill Arbery should be able to provide advice in this respect).

7. Do not plough or disturb surface of fields where surface features have been recorded.

CASE STUDY 2: ST. MARYS

Field Boundaries

F4 Throughout the field system most boundaries are of stone (mainly drystone walls or stone-faced earth walls).

Historic Features

F5 Historic features within fields include the farmhouse, two groups of barns and sheds, remains of earlier boundaries, a stone stile, a hollowed trackway, a Bronze Age standing stone and various humps and hollows that could be the remains of historic features (or natural?).

Condition of Historic Features

F6 The stone boundaries are generally in good condition, but in a few places have tumbled and are in need of repair, and in one instance a boundary is being gradually but systematically removed by the farmer. This boundary is a vital part of the ancient field pattern since it forms the south side of the farmyard enclosure. Most of the barns are still in use, but one of those within the farmyard survives only as a fragment of walling.

Management Recommendations

1. Maintain existing contrast between exposed unhedged fields around farmyard and hedged and wooded fields to north and west.

2. Retain all stone boundaries.

3. Repair tumbled boundaries.

4. Stop removal of boundary on south side of farmyard and retain it in present condition.

5. Consolidate walls of ruined barn in farmyard.

6. retain historic features within fields by not ploughing or grubbing up stone in these fields.

Appendix E
ARCHAEOLOGICAL SURVEY
Case Study 1: Bryher

(w- wide, h- high, d- deep in metres)

- Drystone Walls 0.4-0.7 w, 0.3-1.0 h
- Stone Face Stone Walls 0.5-1.0 w, 0.9-1.5 h
- Stone Face Earth Walls 0.6-1.3 w, 0.3-1.0 h
- Earth Bank/ Stone Faced Earth Bank 1.0-1.2 w, 0.6-1.0 h
- Hedge
- Hedge with Dry Stone Wall beneath
- Ditch 1.0-1.5 w, 0.1-0.5 d
- Boundaries Revetting or Sitting on a Lynchet
- Boundaries Removed (but depression or very low bank may mark line)
- Line of bracken, Brambles, dead Hedge Roots

Historic Features within Fields

1. Lynchet
2. 18 Century? single storey cottage now used as Blacksmiths
3. Ruined Barn
4. Prehistoric post-holed stone ploughed up by farmer
5. Traditional granite shed
6. Stone lined well (0.6m deep)
7. Low mound (distinct as an area of higher ground in low-lying wet field)
8. Humps & hollows which may be remains of removed boundaries of other historic features
9. Clearance cairn on natural rock, surrounded by mound (0.8h)
10. Traditional barns (one in use, one ruined)
11. Lynchet & wall - remains of early boundaries (0.4-0.5 h)
12. Well

Management

- T Length of tumbled walls requiring repair
- 13 Hedge fossilising line of stone boundary- retain

0 25 50 100 150 200 250m

NORTH