Historic Landscape Character Zones

INTRODUCTION

This Section serves as a commentary on the map of Cornwall’s Historic Landscape Character Zones. Both original mapping and text were prepared by Cornwall Archaeological Unit (now The Historic Environment Service, Cornwall County Council) to assist Landscape Design Associates in fully integrating the historical component of the Cornish Landscape into the county-wide assessment carried out in 1994, but the HLC mapping has much wider application and value and continues to be relevant and integral to the new landscape character study represented on this website.

They should guide and inform planners, countryside managers, historians, archaeologists and all bodies and individuals with an interest in the Cornish landscape.

The Zones represent the most useful, second-stage of the Historic Landscape Character assessment devised by Cornwall Archaeological Unit and Landscape Design Associates. The more detailed parcel-by-parcel mapping of Historic Landscape Character Types has been simplified, and to some extent subjected to historical interpretation, to generate 18 Zones which recur across the County.

The descriptive text for each Zone is broken down into the following subsections:

Introduction, the basic defining/distinguishing attributes., including an illustrative maplet which provides an example of the Zone. (The Zone is unshaded, with the grid ref. for the South-west corner of the maplet).

Principal historical processes, which have created or affected the Zone. Includes an identification of key periods.

Typical historical/archaeological components and features found within the Zone.

Rarity, in regional and national terms, of the Zone and of the typical historical components, or complexes of components.

Statement on typical survival of historical/archaeological components within the Zone.

Statement concerning typical degree of surviving coherence of historic components, from various periods.

Nature and extent of past interaction of land use and other uses/functions of this Zone with other Zones.

Visibility and coherence of evidence for time-depth.

Contribution of historic landscape character to the present landscape character.

Typical values and perceptions of the Zone.

Quality and extent of archaeological and historical research and documentation for the Zone.

The potential offered by the Zone for historical/archaeological research.

The potential the Zone offers those concerned with amenity and education.

Statement concerning typical condition of historical/archaeological components within the Zone.
Vulnerability of components. To include a brief review of typical statutory designations or other forms of protection.

Forces for change within the Zone. To include forces for conservation as well as destruction or damage.

Summary statement of the Zone's importance.

Principal locations of the Zone in Cornwall.

Extent and nature of variability within the Zone through Cornwall.

A brief statement suggesting means of safeguarding the Zone.

**ANCIENTLY ENCLOSED LAND (AEL)**

*Defining/distinguishing attributes*

The agricultural heartland, with farming settlements documented before the 17th century AD and irregular field patterns with either medieval or prehistoric origins (rather than the straight-sided fields of later enclosure). Tends to be on relatively sheltered land, not too steep and not too poorly drained, but can extend onto the high downs. Networks of winding lanes and roads, often deeply cut by the passage of people, animals and vehicles over centuries or thousands of years. These connect farming settlements whose layouts are typically irregular, often clearly shrunken from hamlets; some are still hamlets. Churchtowns and a few larger villages are scattered through the zone which also contains most of the county's ancient towns.

There are few people on foot; most are in vehicles: tractors, four-wheel-drive vehicles or cars. It is strangely silent except for the barking of dogs and the drone of tractors crossing and recrossing fields.

*Principal Historical Processes*

Much, even most, of this zone will have been enclosed and farmed since later prehistory (Later Bronze Age onwards, from c.1500 BC). In some parts, notably West Penwith, but also on the fringes of Bodmin Moor and in parts of the Lizard, Carnmenellis and Hensbarrow, distinctively prehistoric fields can be seen. These are usually very small, forming rather irregular grids. Elsewhere land cleared and improved in later prehistory or in the Early Medieval period (the Dark Ages) was re-organised in the later medieval period into extensive 'strip' field systems. Many of these are still recognisable, either as bundles of enclosed strips or as enclosed furlongs or cropping units. These systems are associated with hamlets of co-operative families; fewer, more irregular medieval field systems were laid out by more solitary farmers.

The gradual enclosure of 'open' strip fields, mainly from the 14th century to the 17th, transformed this zone into that which survives today, fields of various sizes and shapes, but almost all with sinuous sides whose boundaries are substantial, stock-proof hedges and walls, supporting rich and varied fauna and flora. At the same time, the communal society of the co-operative hamlets gave way to a more individualistic one of self-contained farming families, a society which survives today. Many people were edged out and left the land, becoming craftsmen and women, entering towns and working in the local extractive
and manufacturing industries (principally tin and later copper mining) whose stimulus to commercialism had accelerated the change in rural society.

In the 19th and 20th centuries, increased mechanisation of agriculture has led to the further reduction in hamlets, the pre-eminence of the solitary farmer, the amalgamation of adjoining farms, the removal of many field boundaries, and the re-organisation, abandonment, or re-use as purely residential accommodation of many farmsteads.

There has been a re-colonisation in the second half of the 20th century of this Zone by commuters and retired people, the mobility offered by the motor car making this feasible.

Typical Historical/Archaeological Components

Dominated by fields, now a mixture of arable (uniform, sprayed and weed-free, worked by machine not hand), permanent pasture, improved grassland (again uniform, single-species and less than semi-natural), some small fields of traditional meadow, usually on less modern farms

and small patches of lowland bog, woodland and scrub, again mainly on the less modern farms.

The fields are distinguished by their patterns and their dividing walls and hedges.

Patterns are all irregular in appearance with very few straight lines. Even those with parallel boundaries (mainly enclosed medieval strip fields) do not usually appear regular when viewed from ground level, the lie of the land twisting and distorting lines. The smaller, most regular fields are in West Penwith and have been shown to be directly derived from later prehistoric (Iron Age and Romano-British) field systems. Massive granite walls with strong lynches (earthworks created by soil build-up at the bottoms of fields) have been re-used by all subsequent farmers. Similar patterns can be seen elsewhere in Cornwall (in St. Keverne, St. Hilary and St. Breward) and may also be prehistoric.

Elsewhere, the main pattern is that more or less directly derived from medieval strips. Where large hamlets had difficulty re-organising complex landholding arrangements, farmers tended to enclose individual strips, or bundles of just two or three, and the result is a pattern of enclosed fields closely similar to that of the original open field (good examples throughout Cornwall, from Escalls near Lands End, Idless near Truro, Tregoss on Goss Moor, Pendrift in Bilsland, Forrabury near Boscastle to Harrowbarrow in the Tamar Valley). More often the small Cornish hamlets radically re-organised their field systems into ones with larger, irregular block-shaped fields. Even here, though, it is usually possible to identify the medieval cropping units or furlongs. Rather rarer are medieval field systems which were never arranged in strips but were irregular shaped closes, often accreted onto core fields, as woods or heath were gradually cleared and enclosed.

Field boundaries vary across the county largely according to materials to hand. Granite and slate areas tend to have more drystone walls or stone-faced hedges. Large areas of lowland Cornwall have essentially earthen banks with quarry ditches along both sides. All are stock-proof and most are covered with vegetation, even trees.

Being the land of ancient enclosure, this is also the principal area of ancient settlement. This mainly takes the form of single farms now, although until c.1850, the Zone would have been dominated by small farming hamlets. Many do survive, in all parts of the county, but few now contain more than one farming family. Buildings are usually a mix of vernacular (farmhouses, stone and cob farm buildings) and modern standardised (parent’ bungalows, covered yards, silos). Vernacular styles and building materials
vary through the county. Most farms have their buildings, gardens, mowhay, orchards and trees irregularly arranged around open townplaces or yards which have lanes leading off to fields, pastures, mill and the world beyond.

This is also the land of medieval churches, churchtowns and the few small villages where, from medieval times, smiths, carpenters, wheelwrights, cobblers, innkeepers and shopkeepers set up their businesses, serving the farming community. Large villages are rare in Cornwall and are mainly 19th and 20th century creations, homes for industrial workers and now retired people and commuters, often on thoroughfares.

Connecting farms and linking them to mills, sanding beaches and churchtowns and to the small medieval market towns scattered through this Zone are the lanes, often of prehistoric origin, and the longer routeways. All are hedged and many are cut down deep into the subsoil or even bedrock. They wander apparently randomly but originally purposefully through the countryside, crossing streams and rivers by ancient fords and medieval bridges. Some are now tarmacked but many are farmers' tracks or overgrown green lanes. Two or three thousand years of agriculture, including some drastic revisions of the layout of fields, has taken its toll of earlier historical features and the main survivors visible at surface are the relatively robust Bronze Age barrows and Iron Age/Romano-British rounds (farming hamlets defended by ramparts); even these are usually ploughed down, their earthworks spread. Much important archaeological material will survive below the surface, including the Bronze Age, Iron Age and Romano-British settlements and fields of the farmers who originally cleared this Zone.

Rarity

Prehistoric-derived field systems are nationally rare. The Cornish medieval fields vary in significant ways from Midland English ones and their relatively early enclosure (most by the 17th century) is important. Hamlets rather than nucleated villages are also fairly unusual nationally. Cornish churches are valuable, too, having so much 15th century work.

Survival

Although a robust Zone, there has been considerable damage to field patterns, in the 20th century, by hedge removal and to farmsteads by redundant buildings being removed or inappropriately converted for re-use.

Degree of surviving coherence of the historic landscape components

Despite the loss of many hedges and the transformation of many hamlets and churchtowns, this Zone retains its coherence in most parts of Cornwall. The relationships between farms and fields via lanes and roads is usually clear.

Past interaction with other zones

In prehistoric, medieval and early post-medieval periods, this Zone was the hub of relations between the various parts of the Cornish countryside. Some connections were very directly related to agriculture, o the UPLAND ROUGH GROUND (URG), COASTAL ROUGH GROUND and DUNES were used as a matter of course by farmers for their summer grazing and as sources of fuel, building stone and soil-sweetening sea-sand. RECENTLY ENCLOSED LAND (REL) would, until the 18th and 19th centuries, have been part of UPLAND ROUGH GROUND, so this Zone has also to be seen in this relation to AEL.

Towns (Urban Development) were located at 8-12 mile intervals through this Zone as agricultural markets on long-distance routes.
Some farms developed into great houses and farmland was often then made ORNAMENTAL. Extractive INDUSTRIAL development took and takes place where the ore, stone or clay was or is; this could often be on AEL.

With the significant exception of the blurring of its relationship with UPLAND ROUGH GROUND through the transformation of so much URG into RECENTLY ENCLOSED LAND, AEL's relationships with most other Zones are still clearly defined.

**Evidence for time-depth**

Modern buildings stand alongside 19th, 18th or 17th century ones, whose positions follow medieval layouts in settlements linked by medieval or prehistoric lanes and tracks running through fields where 19th and 20th century alterations to later medieval or early post-medieval enclosures of medieval strip fields (themselves on the site of prehistoric farmland) are detectable. The Zone swarms with intersections and lines to the distant and recent past. Most people appreciate this, even without understanding the historic details.

**Contribution to the present landscape character**

Great. Enclosed land largely defines the character of the areas where it exists and the maturity of the AEL, compared with REL, is apparent to most observant viewers.

**Values and perceptions**

Perhaps rather taken for granted until damage or destruction makes people aware of its importance in their lives. Its value as an apparently 'timeless' heartland, reassuring and strengthening those who pass through it is then appreciated. It is doubtful whether many people understand its long and complex evolution but most will know that this countryside is old; the churches and the lanes probably signal this more than the farms and fields.

**Research and documentation**

Increasing. There has been an uneven cover of historical and archaeological research but there is now a fairly clear idea of the main historical processes which have created this Zone. More work is needed, particularly in Meneage/Lizard, south and east Cornwall, Carnmenellis and in North Cornwall.

**Potential for historical and archaeological research**

Considerable. Each farming settlement will contain a wealth of historical, architectural and archaeological information. Surveys of field systems yield considerable agricultural, social and tenurial information. Buried archaeological features can be expected virtually anywhere in this Zone.

**Potential for amenity and education**

This is usually working land, mainly appreciated from the road or footpath. Footpaths should be kept open and with the willingness of farmers and landowners, more could be created. The educational potential is great with a full and interesting story to be presented, both indoors and in the fields and farmsteads.

**Condition of historical/archaeological components**

Gradually deteriorating (hedge removal, building conversions etc).

**Vulnerability of components**

Some areas are protected through various designations; others are within the West Penwith ESA or Countryside Stewardship Schemes or are National Trust holdings. Most, however, are beyond designated or protected areas and are very vulnerable to hedge-removal and building demolition/conversion.
Forces for Change

Agricultural improvement continues in a piecemeal way, being dependent on the attitude, energy, sensitivity, wealth etc of individual farmers.

Road schemes, the spread of housing from towns and certain larger villages, extractive industry (especially china clay) and other developments can all be expected to continue to nibble away at this Zone.

A growing appreciation of the value of the Zone and Government and EC subsidies and schemes aimed at promoting more landscape-sensitive and sustainable agriculture will have a positive, restraining effect.

The growth of the retired, commuting and second/holiday home sectors of rural population will continue to alter the shape and reduce the historical integrity of farming settlements.

Importance

Its components, rarity, coherence, time-depth, contribution to landscape character, the high regard in which it is held and the potential it holds for historical and archaeological research and presentation combine to make the Zone of very great importance, second only to Upland Rough Ground.

Principal locations

Found throughout the county except on the most exposed, poorly-drained and steeply-sloping ground.

Variability

The AEL of West Penwith is markedly different from that in most other parts of the county, being largely derived from prehistoric rather than medieval field systems. Its fields are significantly smaller and much more irregular than elsewhere. Variability is otherwise largely visible in local vernacular architecture, and in the materials used in boundaries and buildings.

Safeguarding the Zone.

Every opportunity should be taken to encourage farmers to retain hedges/walls. A serious review of the state of the historic farm building stock needs to be made as conversions and demolitions are greatly reducing the number of intact pre-20th century farmsteads. If necessary, alternative uses of redundant farm buildings need to be fully considered before permissions are granted to convert into dwellings. The great historic value of AEL needs to be fully borne in mind when applications for developments which will destroy or damage parts of it are being considered.

ZONE: UPLAND ROUGH GROUND

Defining/distinguishing attributes

Now distinguished mainly by habitat/ecology from surrounding enclosed/improved ground. The impact of human action is usually underestimated and the zone is often regarded as largely 'natural'. In fact, it has the longest history of human interference/utilisation with its principal attributes, impoverished soil supporting essentially heath/scrub vegetation communities, being a product of prehistoric human intervention and maintained through medieval and early modern land use systems.
Principal historical processes

Environmental analysis confirms that woodland cover right up to the highest slopes in most parts except perhaps on the Lizard was removed by early farmers in the Neolithic and Earlier Bronze Age periods (c.4000-1000 BC) for arable and pastoral farming. Soils deteriorated through nutrient loss and leaching. Iron pans, formed by leaching minerals, accelerated peat formation in later prehistory. (All processes either directly attributable to human action or closely associated with it.)

Once vegetation had settled into its open, heathy form (by c.1000 BC), its use changed to more extensive pastures and fuel-grounds (peat and furze), often as commons shared by several local farming communities. These maintained the essentially open appearance, although some long pasture-dividing boundaries were created, especially in the last three or four centuries.

Upland Rough Ground was, until c.1750, considerably more extensive; its enclosure by industrial labourers and more importantly by an expanding agricultural population in the 19th century and its continued improvement by farmers with capital and machinery in the 20th has greatly reduced it (see RECENTLY ENCLOSED LAND).

Now either used for rough grazing or entirely neglected except by horse-riders and walkers.

Typical historical/archaeological components

The semi-natural vegetation community is the most immediately visible component but there is also usually a wealth of archaeological remains, many of which may be fairly ephemeral, not making a significant impact on present landscape form. Others do, for instance, hill-top Bronze Age barrows, long post-medieval pasture boundaries, areas of peat-cutting, medieval fields and crofts (enclosed and partly improved rough ground) which have reverted through abandonment to rough ground.

Prehistoric sites and landscapes are generally best-preserved in Upland Rough Ground and can comprise complete Bronze Age ritual/ceremonial monuments (long barrows, chambered tombs, round barrows, stone circles, stone rows, standing stones etc).

Transhumance huts, the shelters used by seasonal pastoralists survive from the long period of common grazing and there are remains of peat cutting including the little platforms dried peat was stacked on.

More recent components include pasture boundaries, usually laid out as commons were 'privatised' in the post-medieval period. Industrial remains survive well on Upland Rough Ground and the extensive disturbance of some tracts has inhibited later agricultural improvement (eg. Goonzion Downs on Bodmin Moor and the Greenburrow/Ding Dong area of upland West Penwith). Granite quarries, tin and copper mines and china clay pits form important components of certain areas of Upland Rough Ground, but not all (e.g. those in the Lizard are fairly free of industrial remains).

Very few medieval or modern settlements. Tracks and roads are usually open (not hedged).

Rarity

Prehistoric and medieval features found in this Zone are nationally rare. Industrial and post-medieval features are also usually better preserved here than elsewhere.

Survival

Features survive well because the Zone has been used increasingly extensively through time so that subsequent land use tends not to have damaged or destroyed earlier features. The loss of so much Upland Rough Ground in the last 2-300 years to RECENTLY
ENCLOSED LAND has, however, had a devastating impact on a once much more extensive historical and archaeological resource.

Degree of surviving coherence

In some Upland Rough Ground areas in Cornwall, notably on Bodmin Moor and in West Penwith, there is exceptionally good preservation of coherent early prehistoric landscapes in which secular and 'sacred' elements can be separated on the basis of surviving fields and houses on the one hand and complexes of ritual/ceremonial monuments on the other.

The enclosure of large areas of uplands in the 18th and 19th centuries AD has reduced the internal coherence of once extensive areas of late prehistoric and medieval summer or rough grazing.

Industrial complexes in Upland Rough Ground usually survive intact (unless subsequent industrial development has swallowed earlier remains) and their components can still be easily related to each other.

Past interaction with other Zones

Upland Rough Ground in Cornwall contains few post-prehistoric settlements and is a Zone which has for the last 3000 years (since climatic deterioration in c. 1000 BC contributed to a general abandonment of the uplands as permanent settlement areas) been dependent on neighbouring Zones, notably the ANCEINTLY ENCLOSED LAND. It formed their summer grazing grounds and was also a major source of fuel (peat and furze) and stone. As such it was of critical importance to traditional agricultural communities. Where close to the coast, the Upland Rough Ground was used in conjunction with COASTAL ROUGH GROUND and DUNES.

The loss of large areas of Upland Rough Ground to enclosure in the last 300 years has greatly diminished the impact of the once coherent mixed agriculture landscape on the present Cornish countryside. Almost all of the RECENTLY ENCLOSED LAND (AEL) has been taken from Upland Rough Ground and the distribution of REL indicates the previous extent of summer grazing; virtually every parish in the county once contained significant amounts of Upland Rough Ground.

Evidence for time-depth

In most Cornish areas of Upland Rough Ground, there are palimpsests of the remains of 6000 years of human activity with the increasingly extensive use of uplands, from arable to rough grazing to relative neglect, ensuring the survival of most of the remains of previous episodes. The Upland Rough Ground Zone is thus of the highest historical significance.

Contribution to the present landscape character

Great. Upland Rough Ground dominates the areas where it survives. The historical components, principally the semi-natural vegetation, are fundamental to its overall and particular appearance.

Values and perceptions

Upland Rough Ground makes a larger contribution to local and wider perceptions of areas of Cornwall than any other Zone. The Lizard, northern West Penwith and Bodmin Moor are defined in many minds by the URG within them. Changes to this zone are met with greater concern than changes elsewhere.

Research and documentation

Good, and increasing. A number of archaeological, historical and palaeo-environmental studies have been undertaken in recent decades in Cornwall's Upland Rough Ground,
notably Bodmin Moor, West Penwith, Kit Hill and Hensbarrow. The Lizard, St Breock Downs, and Carnmenellis uplands are still relatively under-documented.

**Potential for historical and archaeological research**

Great. Survey, excavation and analysis of remains will yield much valuable information, as will palaeo-environmental work, particularly that investigating the ancient pollen preserved in deep bogs.

**Potential for amenity and education**

Considerable. Walkers and riders already make wide use of Cornwall's various uplands. Many visit the more famous and accessible archaeological sites. Apart from Country Parks and certain National Trust properties, there is no legal right to roam, and most land is commons controlled by Commoners Associations.

The educational potential is also great, not just through studying historical sites and features, and semi-natural habitats, but also through the experience of moving around relatively unenclosed and unimproved countryside.

**Condition of historical and archaeological components**

Archaeological remains are generally well preserved but in areas no long grazed they can be heavily overgrown with gorse, scrub etc.

**Vulnerability of components**

Most blocks of Upland Rough Ground are protected by various designations. Many are within the AONB; others fall within county landscape designations. Active conservation is encouraged within the West Penwith Environmentally Sensitive Area and in farms involved in Countryside Stewardship schemes.

**Forces for Change**

Neglect of summer grazing, especially in West Penwith, leads to habitat impoverishment and the obscuring of archaeological features by dense vegetation. Meanwhile, overgrazing, and especially overwintering of grazing animals, leads elsewhere to habitat impoverishment and erosion of archaeological features.

Continued agricultural improvement, especially at the edges of Upland Rough Ground, can be expected.

Extractive industry, notably china clay working, continues to reduce the extent of this Zone. Road schemes and other developments do not entirely avoid the Zone either (recent A30 improvements on Bodmin Moor). Conifer plantations and reservoirs are particular threats.

The growth of historically and ecologically aware interest groups is a positive force for conservation.

**Importance**

Of the highest importance. Upland Rough Ground scores higher than any other Zone on virtually every count: variety, rarity, survival and importance of features; coherence of historic complexes; visibility of time-depth; contribution to the present landscape character; documentation and potential for research and for amenity and education.

**Principal Locations**
 Mostly on granite or poorly drained and particularly exposed downland. There are major blocks in West Penwith, on the Lizard peninsula and on Bodmin Moor, with lesser blocks scattered through the county.

Until c.300 years ago, it will have been very much more widespread. With the exceptions of the Roseland and the southern farmlands from Lostwithiel to the Tamar, nowhere will have been further than 2 or 3 miles form a significant block of Upland Rough Ground.

**Variability**

Granite uplands tend to have more archaeological features visible at surface. Geology also determines the nature of walls and hedges etc. Some uplands are relatively empty of industrial remains (The Lizard, St Breock Downs). Some are more fragmented by both Anciendly and Recently Enclosed Land than others (e.g. West Penwith more than Bodmin Moor).

**Safeguarding the Zone.**

Protect but do not neglect. Grazing is important but also needs to be controlled. Further agricultural improvement should be actively discouraged, at the same time as traditional land use and management is encouraged. Hedges and walls should be repaired/maintained, but not wholly rebuilt. Lanes should be kept open and bracken and European gorse domination reduced. The use of four-wheel-drive off-roads should be discouraged. Positive heathland management in the West Penwith ESA should be further encouraged. The securing of Bodmin Moor as an ESA will be of considerable benefit to local farming communities as well as to the highly important habitats and archaeological remains there. Loss of Upland Rough Ground to road schemes, conifer plantations, reservoirs, wind farms and other developments should be resisted. The value of Upland Rough Ground should be always in mind when considering applications for quarries, mines or china-clay workings to either open or expand.

**ZONE : COASTAL ROUGH GROUND**

**Defining/distinguishing attributes**

Unenclosed sloping ground beyond enclosed fields but above precipitous cliffs. A narrow band of land (from 50 to 800m wide) running along most stretches of the Cornish coast.

The semi-natural habitats here are probably more 'natural' than those in UPLAND ROUGH GROUND but are still to a considerable extent the product of thousands of years of human activity, particularly summer grazing, turf-cutting and extractive industry. Now almost entirely neglected; very little grazing. Long distance coastal footpaths run through the band which is therefore quite busy in the summer months.

**Principal Historical Processes**

Cornwall's cliffs have been utilised since at least the Bronze Age. Surveys have shown apparently Bronze Age cliff pasture dividing boundaries (e.g. on Maen Cliff near Lands End) and many cliff-tops have Bronze Age barrows. Bronze Age pottery found secreted in crevices at the spectacular granite headland at Treryn Dinas, apparently as devotional offerings, suggests that this and presumably other dramatic shore-line or cliff-top sites were sometimes used as ritual or ceremonial sites.

Many Cornish headlands were defended in the Iron Age as cliff castles but the cliffs' main use will have been as areas of summer grazing and as sources of fuel, principally furze but also, in poorly drained areas, turf. These agricultural and domestic uses continued through
the medieval and post-medieval periods and into the first decades of the 20th Century. Until the post-medieval period, most cliffs were undivided commons.

Some cliffs, especially on the north coast, were the sites of mines (St. Just, St. Agnes, Perranzabuloe, etc) or slate quarries (the area around Tintagel). Serpentine and roadstone quarrying took place on the Lizard. Looking out from cliff-tops to the sea have been, from at least the 16th century, generations of military men, coastguards (and excise men or smugglers) and fishermen.

Typical historical/archaeological components

The heathy or scrubby vegetation on most cliffs has developed after several decades of neglect. Until its abandonment by farmers, it will have been herb-rich rough grassland. Archaeological sites are generally less varied than in UPLAND ROUGH GROUND, as this has always been strictly marginal land. Ritual/ceremonial sites of the Bronze Age, mainly barrows, are dotted along the coast, on the higher cliff-tops (good examples in the far north of Cornwall and around Newquay). Cliff castles are mainly in the western half of the county and industrial remains are where the ores or workable slates and stone lie. All of these types of site are generally well-preserved, there having been little or no intensive activity subsequently.

The pastures do have a few prehistoric or medieval dividing or cliff-edge walls (the latter to stop slipping stock) but most are post-medieval, the products of privatising commons. Cliff-tops have been encroached upon by field systems as farmers took their cultivated land beyond present margins. The edges of prehistoric and medieval field systems survive in good condition on some cliff-tops.

Around Mousehole are hundreds of tiny 19th or early 20th century flower and potato beds. Military sites are often found on cliff-tops, from look-outs to pill-boxes, batteries to forts. Coastguard services produced look-outs and lighthouses and fishermen built huers' huts from which to watch for shoals.

Rarity

Coastal prehistoric features are rare, as are well-preserved mining, quarrying and military sites.

Survival

Generally good as most cliffs have been difficult to improve agriculturally.

Degree of surviving coherence of the historic landscape components

Pasture dividing and cliff-edge boundaries survive well, as do the various industrial, military, coastguard and fishing complexes. Their various components can be easily and clearly related to each other.

Past Interaction with other Zones

Like UPLAND ROUGH GROUND, Coastal Rough Ground was dependent on other neighbouring Zones, principally ANCIENT ENCLOSED LAND. As summer grazing and fuel grounds, the cliffs formed an essential element of the mixed farming landscape often alongside UPLAND ROUGH GROUND. Many coastal farms were ribbon-shaped to ensure that they possessed a share of both Upland and Cliff-top grazing as well as arable land.

The watchers who used cliff-tops passed messages along to neighbouring military installations, to neighbouring coastguards, excisemen etc or to local seine fishing boat
crews. Many of their sites survive and these flickering communications can be reconstructed in the minds of imaginative visitors.

Tracks which led out from enclosed land onto the cliffs, linking cow and sheep, furze cutter, copper miner and slate cutter to their homes inland still survive.

**Evidence for time-depth**

As for UPLAND ROUGH GROUND, survival of remains from the earliest period of use (at least the Bronze Age) is generally good because subsequent use has usually been extensive and non-destructive. So, for example, on Maen Cliff, within a half-mile stretch, there is a Late Neolithic/Early Bronze Age entrance grave, several small round barrows, a Bronze Age field system, Bronze Age pasture boundaries, an Early Iron Age cliff castle, medieval pasture boundaries, a post-medieval coastguard look-out, a flagpole and a World War Two pillbox.

**Contribution to the present landscape character**

The semi-natural vegetation of the Cornish cliffs has been partially determined by millennia of human intervention, mainly by regular grazing and then turf-removal. The last century of relative neglect has given 'nature' a chance to establish more control over habitats.

Buildings and structures relating to watching the sea (lighthouses, huers' huts, military installations etc) dot the cliff-line and long, now usually overgrown, pasture boundaries rush down the steep slopes to the cliff-edge. Observant visitors will always be able to see some historic features, even on the wildest, most windswept stretch.

**Values and Perceptions**

Much visited, mainly by the coastal path, and much loved. Most people would probably be surprised to learn how much human activity took place on the Cornish cliffs up to the early 20th century. Probably rightly regarded as the most 'natural' Zone in Cornwall.

As the boundary between the sea and the land, the Coastal Rough Ground zone has considerable psychological and mythical meaning and value for historically-aware Cornish people.

**Research and documentation**

Increasing. Recent surveys of National Trust coastal properties (mainly in West Cornwall), the St. Just mining district, the North Cornwall coastal slate quarries and the cliffs north of Boscastle have increased our knowledge of the history and archaeology of this Zone considerably. There are, however, long stretches for which documentation is sketchy (e.g. the Lizard, and from the Roseland to Rame).

**Potential for historical and archaeological research**

Survey, excavation and analysis of the well-preserved archaeological sites will yield valuable information. Coastal peat bogs do exist and palaeo-environmental information will survive.

**Potential for amenity and education**

Great. There are very few unspectacular Cornish cliffs. The semi-natural vegetation is itself of interest to many people, supporting insects, birds and mammals. Many people visit the more famous archaeological sites and could be encouraged, where safe, to visit more.

**Condition of historical and archaeological components**

Generally good but, as the cliffs are increasingly neglected, many archaeological sites are becoming obscured by dense vegetation.
Vulnerability of components

Subject to numerous protective designations. Long stretches are SSSIs, much (approximately one-third) is owned by the National Trust, and most fall within the AONB.

Forces for Change

There are few forces for negative change beyond a minimal encroachment by farmers and an expansion onto certain cliffs of recreation facilities (e.g. caravan/chalet parks, golf courses). Continued neglect of the cliffs as grazing grounds will lead to the gradual submergence of less visible archaeological remains beneath a vegetation community which becomes annually less varied and more dominated by one or two vigorous species.

The use of cliffs by long-distance walkers will continue to increase; there are some problems of erosion but with careful management these can be contained (e.g., again, at Maen Cliff).

Importance

Of considerable importance. Its rare and well-preserved archaeological features survive in understandable complexes where time-depth is clearly visible. The Zone is highly valued by both local people and visitors and has good potential for research and presentation.

Principal locations

Found along most of the Cornish coast. Exceptions are where it has been replaced by DUNES, URBAN DEVELOPMENT, RECREATION, PREDOMINANTLY INDUSTRIAL and ANCIENTLY and RECENTLY ENCLOSED LAND, the last two Zones usually being on cliffs which either lack or have very little steeply sloping ground.

Variability

Dependent largely on geology, soils and geomorphology.

Safeguarding the Zone

This is potentially difficult because the neglect of cliff grazing has lasted for longer than most people's memories and its re-introduction will be challenged as modern improvement of what is perceived to be natural landscape. Nevertheless, it needs to be addressed as continued neglect will lead eventually to seriously impoverished vegetation and animal communities (the loss of the national bird, the Cornish chough, being the best known example). The National Trust and English Nature have been reintroducing cliff grazing with satisfying results over stretches of its coast and other bodies should be encouraged to follow suit. Further loss of Coastal Rough Ground to agriculture (e.g. ploughing to cliff-edges), recreation and other development should be resisted.

ZONE : DUNES

Defining/distinguishing attributes

Areas of blown sand and shell deposits along low-lying stretches of the Cornish shore, principally on the north coast. Locally called towans. Marram grass holds together the seaward sides of Dune complexes while more mixed plant communities have developed on sheltered lees and dune-pastures have developed on lower dune-slopes. As in UPLAND ROUGH GROUND and COASTAL ROUGH GROUND, this apparently natural habitat has been influenced and affected by human activity, mainly summer grazing of farm animals, and can be regarded as semi-natural. The marram grass itself has been introduced to some Dunes to aid stability.
Within the Dunes, there are ruined mines (especially on the vast Perran Sands) and other now abandoned industrial complexes, the most dramatic and extensive being the explosive works at Upton Towans. These have altered the landform of these inherently mobile landscapes. Other Dunes have and still are used for military exercises and are out-of-bounds for the public. Caravan and chalet parks and golf courses have also spread onto Dunes, considerably altering their character.

There are also often highly important prehistoric and medieval features and complexes buried beneath Dunes.

Principal historical processes

The Dunes themselves are post-glacial creations. There is still uncertainty concerning the date and rate of development but it is known that they were not all created at the same time. South Cornish Dunes, such as those at Gunwalloe, appear to be much more recent (later medieval?) than some of the major Dunes on the north coast (e.g. Iron Age and earlier inundations at Harlyn Bay, Constantine Bay, St. Enodoc and Gwithian), although even these continued to develop well into post-medieval times with medieval settlements, churches etc being overwhelmed.

An important historical feature of the development of Dunes is the succession of sand movements and stabilization; a stabilised land surface may be used for pasture, cultivation and settlement before being sealed by a further sand blow, the surface of which may in due course become stabilised and again used for pasture, cultivation and settlement. In places, (e.g. Gwithian) successive buried land surfaces with their associated settlements and fields can extend from the Early Bronze Age through to the medieval period. Evidence for the more recent episodes of use is not always obscured by sand - apparently medieval field boundaries at Perran Sands, isolated or ruined medieval churches at St. Enodoc, Perranzabuloe and St. Constantine.

Miners cut through Dunes to reach copper and tin lodes in the 18th and 19th centuries and an explosives manufacturer made use of the broken relief and soft ground to establish a major factory at Upton Towans in the 19th and early 20th centuries.

In the second half of the 20th century, extensive caravan and chalet parks and golf courses have been established on sand dunes around Hayle, Perranporth, west of Padstow and south of Bude on the north coast and at Praa Sands and Pentewan on the south coast. People have been attracted by the long sandy beaches which edge most Dunes since the later 19th century.

Typical historical and archaeological components

The semi-natural vegetation is partly created by grazing and deliberate planting.

Dunes are generally rich in buried archaeological remains. These are usually well-preserved, the Dunes being non-acidic, and may date back to the Bronze Age. As such they are of the highest importance, as demonstrated by excavations at Gwithian

Modern caravan and chalet sites dominate most Cornish Dunes but the remains of early industry are also visible and medieval churches and chapels have been revealed; that at St. Enodoc is one of the strangest, sitting in a rectangular graveyard in the middle of a modern golf course.

Industrial and early recreation sites survive well.

Rarity
Dunes are themselves relatively rare formations, but the prehistoric and medieval features found within and beneath them and some of the specialist industrial remains found on them (notably explosives works) are very rare.

Survival
Apart from recreation complexes, there have been few damaging developments in Dunes and features therefore survive well.

Degree of surviving coherence of the historic landscape components
The extent of medieval and post-medieval summer grazing grounds can be easily appreciated and most ruined industrial sites are well preserved, their inter-related features clearly visible.

Past interaction with other zones
Dunes overwhelmed some areas of ANCIENTLY ENCLOSED LAND (AEL) and then became the summer grazing ground for farms in other areas of AEL. The relationship between these Zones was until the early 20th century close and this can still be appreciated as the boundaries between the Zones are soft and blurred.

RECREATION areas are often directly superimposed onto Dunes.

Evidence for time-depth
This is difficult to establish as Dunes’ surfaces have changed so often. Surviving features tend to be isolated and unrelated except when in industrial/recreational complexes. Excavations reveal earlier phases and sand blows reveal sections showing layers of old land surfaces interspersed with layers of sand; vividly demonstrating time-depth. Medieval churches and chapels give an insight into the existence of different earlier landscapes, now buried.

Contribution to the present landscape character
The semi-natural plant communities are partially creations of the human use of Dunes - much of the marram grass was deliberately planted. The impact of historic character is therefore greater then may have been assumed.

Value and perceptions
Most Dunes, or locally towans, are regarded as exciting wildernesses often tainted by modern caravan/chalet/golf course developments. Few people appreciate how the Dunes fitted into local farming economies or were the sites of industrial enterprises.

Research and documentation
Reasonable. The Gwithian Dunes were subjected to detailed archaeological excavation in the 1950s, unfortunately only partially published. Palaeo-environmental work has been undertaken on some Dunes.

Potential for historical and archaeological research
Archaeological sites possess considerable potential. Dunes are likely to contain the best-preserved prehistoric and medieval settlements and fields and to have the best survival of bones, both animal and human. The study of dune formation and local environmental/climate history will be important as will the study of the more recent use made of Dunes by local farming communities.

Potential for amenity and education research
Good. Recreation has thus far used Dunes mainly as adjuncts to desirable beaches or as bunker-filled golf courses but there is potential for encouraging the appreciation of the Dunes themselves; their flora and some of the industrial and earlier sites within them (as is happening at Upton Towans explosives works near Hayle).

Condition of historical/archaeological components

Generally good, as recent use has been fairly unintensive. Where recreation and military uses have taken place components can be expected to be in less good condition.

Vulnerability of components

Widely protected as SSSIs due to their ecological value. Many Dunes also fall within the AONB or other designated areas and some are owned by the National Trust.

Forces for change

The main threat to Dunes appears to be from the expansion of recreation facilities. Most Dunes are now fairly stable, thanks to the planting of marram grass. There is little likelihood of loss to agricultural expansion, road provision or housing.

Importance

High in terms of rarity and survival of historical components and in its potential for archaeological and palaeo-environmental research and amenity/education use.

Principal locations

The most extensive Dunes are on the north coast, at Lelant, Hayle, Gwithian, Perran Sands, Constantine and Harlyn Bay, Widemouth Bay and Bude. Smaller areas on the south side are found at Whitesand Bay (Sennen), Marazion, Praa Sands, Gunwalloe, Mullion, Kennack, Pentewan and Whitesand Bay.

Variability

This depends to some extent on the age of the Dunes and thus the date and form of historical features both beneath and within them.

Safeguarding the Zone.

Historical and archaeological sites can be more closely studied and carefully presented as a means of raising awareness of the historical element of what is often perceived to be a natural environment. The combined ecological and historical value of Dunes should be borne in mind when considering expansion of recreation sites or the developments and presumptions should be made in favour of conserving these very important places. The continued monitoring of Dunes is important; the prevention of erosion particularly.

ZONE: RECENTLY ENCLOSED LAND

Introduction: defining/distinguishing attributes

Land enclosed in the 17th, 18th, 19th and 20th centuries, usually from medieval commons on UPLAND ROUGH GROUND, so generally in relatively high, exposed or poorly-drained parts of the county. Very extensive.

Fields are distinguished by having straight sides and often hedges or walls which have less mature or varied vegetation cover. Many are drystone walls.

Roads are walled or hedged but straighter than elsewhere. Settlements are closer together than in ANCIENTLY ENCLOSED LAND (AEL) as farms' or smallholdings' acreages
were smaller. Most are single farms, not hamlets, and the dwellings and farm buildings are usually smaller and more simply and poorly built than in AEL. Being exposed, there is relatively little woodland compared with AEL, but more evidence of its previous vegetation in gorse, heather, ling etc on hedges and in corners of fields.

There are three principal types of field pattern: wholly new farms with large fields; post-medieval and modern intake on the margins of more ancient farms and miner's smallholdings. The latter are responsible for the very busy landscape visible across the main mining districts of Cornwall, characterised by numerous single cottages scattered through the countryside.

Busier, untidier and noisier than AEL. More people on foot, more small-scale semi-industrial enterprises. Land is now usually pasture, with little arable, this being essentially marginal land.

Principal historical processes

Although some of this Zone was enclosed in the second half of the 18th century and in the 20th, the great part was taken in from rough ground in the 19th century.

It has been generally accepted that the stimulus for this expansion came from industrial workers establishing small farms in their spare time. There is certainly evidence for this in parts of the St. Just, Camborne-Redruth, Hensbarrow, Minions, de Lank and Hingston Down areas but this process has been over-emphasised and over-simplified. Even in the industrial heartlands a separate, purely agricultural expansion, was the main source of this Zone. The main role of industry was to provide a growing market for the products of an expanding agricultural base.

These new enclosures were not established in waste ground, but in summer grazing and fuel grounds, usually held by tenants in common but actually owned by lords of manors or estates. The enclosures deprived farmers in the AEL of an important element of their farming resource (incidentally accelerating their own shift from mixed farming to specialisation) but greatly increased the returns (in rents) lords obtained from their land. The real stimulus for these enclosures came then from rural capitalism with the Lords of the Manor in control and it is easy to imagine the economic and social upheaval throughout the Cornish countryside which resulted from this process which also had the most dramatic effect on the appearance of the Cornish countryside since the establishment of strip fields in the AEL. This is vividly seen by studying the map of Zones, but not always very apparent when moving around the countryside.

Typical historical/archaeological components

Enclosures are almost all rectilinear with dead straight sides. (As they are also on uneven ground, this most characteristic aspect of the field systems is not always apparent as illusions of sinuosity are created as hedges ride over irregularities.) Fields vary considerably in size, normally increasing with distance from farmsteads.

There are more drystone walls in this Zone than in AEL, partly because of the quantity of stone to hand when clearing previously rough ground, but also because this was a particular style of boundary building prevalent throughout Cornwall in the 19th century. There are also, however, turf banks and the usual Cornish hedges (stone-faced earth walls).

Settlements are usually single farms or smallholdings, not farming hamlets. Buildings are often more standardised than in AEL as many were built after the vernacular period (say, c.1840 in rural Cornwall); symmetrical facades, sash windows. Local materials were still used. Buildings are often relatively small (poor families, less
livestock/deadstock/machinery), and poorly built compared with AEL. More galvanised-iron roofs than in AEL.

There are few medieval churches or settlements in this Zone, as it was previously rough ground, but large number of non-conformist chapels, and a few newly-created Anglican parish churches (e.g. Lanner, Baltho, Treverbyn, Bolventor, Pendeen, Mithian).

Greater density of settlements (due to smaller acreages of holdings) created a more intricate web of tracks and lanes, most of which follow fields in being dead straight.

There are considerably more extant prehistoric archaeological sites in this Zone than in AEL as this was, until recently, the Upland Rough Ground in which such sites were largely confined. Many will have been destroyed in the process of enclosure and farming but large numbers of barrows and standing stones, and even some stone circles survive in this Zone.

**Rarity**

The Zone itself is not rare in Cornwall, being scattered through all parts of the county. Prehistoric remains within it will, however, be relatively rare.

**Survival**

Good. There has been relatively little modern improvement compared with AEL, owing to its marginality.

**Degree of surviving coherence of the historic landscape components**

The defining phase for this Zone, post-medieval or modern enclosure, has quite coherent remains with fields, lanes and settlements still operating much as they have done, albeit in a more mechanised way, for up to 300 years. The prehistoric remains, however, are not usually as coherent in historic landscape terms as they are in the relatively undisturbed UPLAND ROUGH GROUND.

**Past interaction with other Zones**

Farmers in the Zone were often given rights of turbary or common pasture in neighbouring areas of UPLAND ROUGH GROUND (URG). The historical relationship between this Zone and the URG is, of course, close, as REL developed from the gradual enclosure of URG.

Although usually contiguous with AEL and having lanes and roads connecting the two, like veins passing between torso and limbs, there is often surprisingly little interaction between the two principal Zones of enclosed land, REL and AEL.

**Evidence for time-depth**

Up to 300 years of agriculture, including, in the last 50 years, a shift from mixed to largely pastoral farming, has left evidence for several post-medieval episodes. As noted above, the whole Zone is itself evidence for a radically different phase, lasting over two thousand years, of summer grazing as UPLAND ROUGH GROUND, and then, within the Zone, there is considerable evidence for still earlier episodes in the form of prehistoric monuments, both secular and ceremonial. Post-War enclosures are almost exclusively defined by wire fences, e.g. St Breock Downs.

**Contribution to the present landscape character**

To most viewers only very subtly different from AEL, except in post-War enclosures. As enclosed land, it has a profound impact on landscape character, especially if its origins as UPLAND ROUGH GROUND are borne in mind.

**Values and perceptions**
Not usually appreciated by people living outside the Zone, being very fragmented, often inaccessible country with few picturesque features and many attributes with limited appeal. Close-knit modern communities live here and, as their home, the Zone is valued. Intricacies of paths and lanes and proximity of many neighbours makes it a rich, if not beautiful, part of Cornwall’s landscape which may suffer unduly when set beside the more traditionally appreciated beauty of much of the surrounding countryside.

Research and documentation

Prehistoric sites within the Zone are generally well recorded. The historical processes which gave rise to the Zone have been less closely studied, although archive documentation is rich.

Potential for historical and archaeological research

Good. The prehistoric sites will have considerable archaeological potential and the elucidation of the causes and methods of enclosure will repay historical research.

Potential for amenity and education

The prehistoric features will probably attract more interest than the fields and settlements of enclosure. Dense networks of paths and lanes within the Zone will be useful for footpaths etc for both local people and visitors.

Condition of historical/archaeological components

Some boundary removal but the marginality of the land and the pastoral emphasis in recent farming makes modern farming less intensive and destructive. Condition is therefore generally good.

Vulnerability of components

Not usually protected in its own right, although blocks do fall within the AONB and the West Penwith ESA.

Forces for change

Farmsteads will be increasingly altered as opportunities to acquire and convert dwellings and farm buildings in the more attractive AEL diminish. The effects of such a trend could be very serious, not just for the appearance and historical integrity of the 18th and 19th century farmsteads but also for the social structure of the Zone and the continued practice of pastoral farming within it, a practice which does much to preserve the Zone’s character.

Agricultural improvement, notably the removal of hedges and walls, can be expected to continue.

Road schemes and other developments, such as windfarms, can be expected in this relatively under-valued Zone.

Importance

An under-regarded Zone. The survival of prehistoric features raises its archaeological value. Its internal coherence, evidence for time-depth and contribution to landscape character are all important.

Principal locations

Widespread; found throughout the country, although the distribution of AEL on the agriculturally most favourable land means that REL is generally found on the margins of Upland Rough Ground or on relatively exposed, poorly drained land.
Variability

Largely visible in the materials used in boundaries and buildings. Otherwise surprisingly consistent throughout the county.

Safeguarding the Zone

Every opportunity should be taken to encourage farmers to retain hedges and walls. The targeting of REL for Set-aside and heathland regeneration schemes should be considered. The granting of permissions to convert farm buildings to dwellings needs to be undertaken with the likely consequences for social structure and the landscape in mind. Efforts should be made to raise the profile of this Zone, by opening more footpaths, making prehistoric sites within it more accessible, and by increasing awareness of the historical background to the Zone.

ZONE: ANCIENTLY ENCLOSED LAND EXTENSIVELY ALTERED IN 18TH AND 19TH CENTURY

Defining/distinguishing attributes

Anciently Enclosed Land (AEL) whose field systems were re-organised by the replacement of relatively irregular fields with sinuous sides by more regular or rectilinear fields with perfectly straight sides. Lanes and roads were also often altered. It is usually possible to pick out certain sinuous boundaries which survived the transition and other aspects of the Zone retain the feel of AEL, notably the farming settlements which were often not dealt with in the same rationalizing way as the fields.

As the Zone also contains other attributes of AEL (churchtowns, relatively wealthy farms etc), it is not a replication of RECENTLY ENCLOSED LAND (REL).

Principal historical processes

The transformation of AEL is an agricultural process driven by other historical forces, notably in Cornwall the growth of towns in the 18th and 19th centuries and the demands increasing urban populations placed on the agricultural hinterlands. This is seen by the proximity of this Zone to industrial towns, St Just, Hayle, Redruth etc and other towns which expanded in the 19th century (Porthleven, Newquay, St Austell etc). Elsewhere the transformations may have more local or varied causes. An estate which had suffered long neglect may have been swept clean of ancient irregularities by the new broom rather than simply repaired. The introduction of new machinery may have caused some farmers to consider re-organising field patterns; stationary steam engines which flourished in the mid-19th century worked best in large, straight-sided fields.

Typical historical/archaeological components

Fields are generally straight-sided but do usually contain some original prehistoric/medieval sinuous boundaries. Lanes are a mixture of sinuous and straight and there are more drystone walls than in AEL.

Settlements are normally the same irregular hamlets of medieval origin found in AEL and most of the other historic components of the Zone are similar to AEL, rather than REL.

An additional phase of landscape revision means that there are probably even fewer prehistoric features visible at surface within the Zone than in AEL.

Rarity
The Zone is fairly restricted in Cornwall and will also be unusual in England where there was generally less early enclosure from subdivided fields.

**Survival**

Good, although some hedges have been removed in the 20th century to enlarge fields.

**Degree of surviving coherence of the historic landscape components**

The rectilinear fields laid out in the 18th and 19th centuries have usually survived in coherent patterns and, with many or most of the AEL’s other components normally in place, the historic landscape in this Zone is therefore generally still understandable.

**Past interaction with other Zones**

See AEL for general comments. The proximity of much of this Zone to towns, or URBAN DEVELOPMENT, is also historically significant.

**Evidence for time-depth**

The survival of some sinuous boundaries (which will also be distinctive through possessing more mature and varied vegetation communities) among the straight ones adds to the time-depth visible in AEL.

**Contribution to the present landscape character**

Significant, as AEL.

**Values and Perceptions**

See AEL; most people will not appreciate the difference between this Zone and AEL and will value it highly, as part of their perceived agricultural heartland.

**Research and documentation**

Not studied either as the interesting product of a particular historical process or through individual archaeological surveys, although archive documentation will be similar to that for AEL and REL.

**Potential for historical/archaeological research**

Considerable (see AEL).

**Potential for amenity and education**

Rather less than for AEL as its field systems have been damaged.

**Condition of historical/archaeological components**

Generally as AEL, and although medieval fields have been either damaged or lost, the later 18th/19th century ones are usually in good condition.

**Vulnerability of components**

Some blocks receive protection through being within designated areas but most receive no protection.

**Forces for Change**

As for AEL, the location of significant parts of the Zone close to towns means that it is more vulnerable to urban development.

**Importance**

As an AEL derived Zone, its importance is still high but the 18th and 19th century alterations have reduced its relative importance a little.
Principal locations
Mainly either close to towns or in the central third of the county, carved out of AEL.

Variability
Largely confined to the size and condition of the fields.

Safeguarding the Zone
As for AEL.

ZONE: ANCIENTLY ENCLOSED LAND EXTENSIVELY ALTERED IN THE 20TH CENTURY

Defining/distinguishing attributes
ANCIENTLY ENCLOSED LAND (AEL) whose field systems have been substantially altered by large-scale hedge removal in the 20th century. The large fields which result are often farmed more intensively, using heavier machinery, than in 'unimproved' AEL.

Principal historical processes
The later 20th century alterations are mainly the product of a combination of increased agricultural specialisation coupled with capital investment in the form of machinery relatively insensitive to the intricacies of the original smaller fields. The leasing of land to highly capitalised industrial farming concerns, such as potato or bulb growers, is a trend which accelerates the process. An underlying cause of the change is the inability of many small farmers to compete with neighbours who need to expand to maintain adequate returns on their investment. The result is amalgamation and 'improvement'.

Typical historical/archaeological components and features
Fields are very large, but usually with sinuous sides as strategic ancient hedges are retained.
Settlements and most of the other historic components of the Zone are similar to AEL, although farmsteads are often altered, with numerous large covered yards, silage pits etc.
The use of heavier agricultural machinery means that there are even fewer prehistoric features visible at surface than in AEL and also that sub-surface remains are more likely to be damaged or destroyed.

Rarity
Becoming more common as this Zone is the product of an ongoing process. It is also a process visible throughout Britain.

Survival
The removal of hedges and the use of heavy machinery greatly detracts from the quality of survival of archaeological components above and below surface within the fields. Beyond the fields, the components of AEL are not usually so badly affected.

Degree of surviving coherence of the historic landscape components
It is in this respect that hedge-removal causes most visible loss, by divorcing the farmstead from its historic farmed landscape through the removal of the networks of hedges and internal lanes.

Past interaction with other Zones
See AEL for general comments.
Evidence for time depth

Away from the fields, the comments for AEL apply but the damage to fields which were first established in the prehistoric or medieval periods seriously reduces the evidence. The survival of a small number of sinuous boundaries, now defining the very large enclosures used by the modern farmers, does leave a little evidence for those who can appreciate that these are relatively early features.

Contribution to the present landscape character

The large fields, usually with uniformly coloured crop or grass, are striking features of the present landscape.

Values and Perceptions

Modern farmers will appreciate the necessity for this form of landscape if the production levels required to achieve adequate returns for capital are to be achieved. Most other people, however, lament the loss of the recognisably and reassuringly ancient field patterns that they may have either grown up with or that they associate with Cornwall. As well as this loss, the replacement of a previously fragmented and intricate landscape containing local shelter and uneven splashes of colour with a monotonous one, is disturbing and depressing.

Research and documentation

Little research has been done on the impact of this Zone on the historical landscape. Research on the background AEL is increasing (see AEL).

Potential for historical/archaeological research

More limited than AEL due to the destruction of field patterns and the loss of sub-surface remains. Potential for documentary research, using maps and loose documents is still good.

Potential for amenity and education

Less than for AEL, not only because its 'ancient' quality has been greatly reduced, but also because there is less desire to walk through and explore this country.

Condition of historical/archaeological components

As noted above the condition of AEL related components is usually poor, as is that of earlier prehistoric features, including sub-surface remains. Vulnerability of components

The modern features receive no protection.

Forces for change

The modern features are themselves not subject to forces for change beyond the appeal of conservationists to return aspects to more traditional forms. The Zone is itself a force for change in AEL.

Importance

Any importance lies in its negative aspect as a force for negative change to the historic landscape.

Principal locations

Found throughout AEL from Sennen to Morwenstow. The only area with little or no 20th century improvement is in the Winning and Working Area of the China Clay Industry north of St. Austell.

Variability
Largely depends on whether a whole farm (or several adjacent farms) have been improved or just the most productive elements of a single farm. Otherwise uniform across Cornwall.

Safeguarding the Zone

If farmers are successfully encouraged to partially reinstate this Zone, most realistically by subdividing the large enclosures by built hedges and by employing less intensive agricultural regimes, then archaeological/historical consultation is recommended to consider appropriate hedge-lines etc. More practical and more important for conserving AEL are incentives and restrictions which may dissuade other farmers from 'improving' AEL in the first place.

ZONE: NAVIGABLE RIVERS AND CREEKS

Defining/distinguishing attributes

Rivers, mainly sunken valleys or rias, which have been used for ship, boat or barge transport. Most have wooded slopes and some have floodplains. Many are now literally backwaters, quiet places which see few visitors.

Historical processes

Most of Cornwall's navigable rivers have been greatly shortened by the deposition of vast amounts of silt brought down from tin streamworks in the medieval and post-medieval centuries. It is sometimes difficult to imagine the Fal navigable beyond Tregony to at least Grampound, and the Fowey almost to Restormel. Until the 15th and 16th centuries, Cornwall's communications systems will have been based on water transport to a much greater extent than the better-known history of the last two or three hundred years would lead people to expect. There will, for instance, have been a fairly short neck of land between the Fowey and the Camel, two rivers whose north-south line connecting the two coasts ran counter to the dominant east-west ridgeway route (now the A30). It is no coincidence that Cornwall's earliest important town, Bodmin, was established on this neck nor that many other medieval towns are located either at or near the highest navigable points of important rivers, connecting the Cornish heartlands with the sea (Wadebridge, Helston, Penryn, Truro, Grampound, Tregony, Lostwithiel, St Germans and Calstock).

Medieval and post-medieval river traffic brought life and busy activity to the banks of these rivers. Quays and wharves fronted riverside villages with warehouses, lime-kilns, processing factories etc serving industrial and agricultural hinterlands. Salmon, sea-trout and other fish were taken by net, into the 20th century and from at least medieval times. Ferries criss-crossed the rivers, linking banks, from at least the medieval period (Malpas, Saltash, Bodinnick, Cremyll, King Harry's Passage, Padstow and Lelant).

From the 18th century, many large houses on the crests of the valleys had extensive ornamental gardens carved out of the woods running down to little beaches along the riverside (Penrose, Tregothnan, Trelissick, Antony, Mount Edgcumbe, Prideaux Place etc).

Other woods had been gradually lost to agricultural clearance from the medieval period, particularly on the less-steep valley sides but few rivers lost their woods entirely. Some of the creek-side woods will be truly ancient, never having been clear-felled but always managed by woodsmen. They formed important elements of the working landscape, as underwood pasture, sources of fuel, coppice wood and timber. Charcoal will also have been produced and bark taken for the tanning industry.

Residential and recreational developments in the 20th century have made these valleys relatively exclusive places.
Typical historical/archaeological components and features

The woodlands are semi-natural, having been carefully managed from prehistoric times until the present century (some are still carefully managed).

There are few medieval or post-medieval farming settlements within the valleys, although some field systems (both Ancient and Recent) do reach down a little way into them.

Ornamental landscapes are in places imposed onto this Zone (see ORNAMENTAL for details).

Most quays are now derelict or under-used and lime-kilns are decaying. Many ferries still operate, some having become car-ferries (King Harry’s Passage, Bodinnick, Torpoint). Most river-side villages, however, have been absorbed into modern, fairly exclusive residential settlements. Some of these early settlements were the foci for medieval parishes, their churches down by the rivers - St. Winnow, Golant, Mylor, St. Just-in-Roseland. Other have medieval chapels of ease - Porthilly, Polruan.

The silted creeks and valleys are themselves historical features.

Rarity

The unusual combination of early and extensive industry (tinning) in Cornwall produced early industrial quays and river-side villages which are rare in national terms. Within Cornwall, ferries, lime-kilns and tidal-mills are mainly confined to this Zone (overlapping with INTER-TIDAL). There is also relatively little ancient woodland way from this Zone and STEEP-SIDED VALLEYS.

Survival

Generally fairly good even though most components are no longer used. Quays were substantial structures and survive well. Many of the ancillary features in the river-side villages have either been retained in converted forms or are respected by the new, relatively conservative communities who occupy these places. Woods are fairly stable, although many are not as thoroughly managed as when they were integral parts of local economies. Ornamental landscapes are also generally well maintained.

Degree of surviving coherence

In the riverside settlements, the quays and wharves are still the foci of activities, even when no longer used. They are open spaces towards which roads, streets and lanes run. Bollards, warehouses, lime-kilns etc often also survive and are clearly related to them.

Many of the valley-side features often never or rarely interacted; the great house and its gardens cut out of and insulated from woodlands managed by people who may not have worked the adjacent enclosed land. Other components, however, were closely associated: quay, lime-kiln, farmland; ferry, lane, stately home. Both divorced and interacting components are all important, contributing to a once busy and very colourful Zone.

Past interaction with other Zones

Some of the activities carried on along navigable rivers and in creeks were cut off from neighbouring Zones. This was in part due to topography, the rivers being in deep valleys, but partly due to the nature of the activities. Great houses and their gardens were relatively self-contained and the world of woodland management was also often introverted.

Quays, ferries, warehouses, factories and limekilns, however, did link Zones. Farmers, millers, quarrymen, and miners used the quays, warehouses and factories; travellers of all kinds, from all Zones, used the ferries, lanes and hostelsries, and lime-kilns from the 17th century producing the soil-sweetening lime used by farmers far inland.
The woods produced timber, bark and charcoal used in mines, farms and tanneries and local farmers used the undergrowth for rough grazing. Tidal mills ground local farmers' grain.

Evidence for time-depth

Medieval churches and chapels at the hearts of the little riverside settlements whose core streets of 17th and 18th century buildings are now surrounded by later 19th and 20th century residences vividly illustrate time-depth. The lanes running down to ferries, deeply-cut into subsoil, even rock, show the antiquity of these features. Walking through the woods, visitors see overgrown woodland banks, charcoal-burners' platforms and woodsmen's tracks. Emerging into fields, they appreciate how these enclosures have progressively fragmented once continuous ribbons of woodland.

Contribution to the present landscape character

Darkly wooded with eye-catching detail alongside still waters or wader-dotted mudflats (depending on the state of the tide), this Zone contributes much to Cornwall's landscape and identity.

Most of the visible components in these valleys have been determined by past human activity, even the woodlands and the muddy silt. Few features are modern, usually just marinas and large modern houses on the edges of settlements.

Values and perceptions

Regarded now as fairly exclusive areas of Cornwall, pleasant places for summer walks looking at pretty or romantic things - gardens, woods, creekside churches, people messing about on the river. It is sometimes difficult to break out of the reverie and appreciate that these were once busy work-places with quite large ships passing along channels now busy with little yachts and dinghies, where tramways brought tin and copper ore rattling in for shipment from quays now taken up with outdoor seating for delightful riverside pubs, where the inhabitants were hard-working Cornish people.

Research and documentation

Research has been very patchy but documentation will be good for the most recent centuries. Relatively little work has been done on the history and archaeology of the woods, riverside settlements, quays, lime-kilns, tidal mills and river trade generally. Few individual rivers have received the close attention of local historians with the exception of the Tamar.

Potential for historical or archaeological research

There is great potential in this Zone for both archaeologist and historian to get to grips with medieval and early modern trading and commerce. Recording the great variety of important features will also help in the management of a Zone for which there is considerable latent public interest. See INTER-TIDAL for the potential for archaeological research in the rivers themselves.

Potential for amenity and education

Many interest groups already make use of this Zone: walkers, sailors, canoeists, visitors to gardens etc. Apart from a few exceptions (Cotehele Quay, for example) there has, however, been relatively little presentation of the historical remains to the public, despite the considerable potential that the coherent and well-preserved remains of an exciting and romantic aspect of Cornish history allows.
Many 18th and 19th century riverside complexes are in good condition, particularly along the Tamar, Lynher, Helford and Fal rivers and their tributaries. Woods, too, are generally well-preserved and some are still carefully managed. Some settlements have expanded in the 20th century further than seems appropriate in this Zone, climbing up the slopes of the valleys.

**Vulnerability**

A relatively stable Zone, the landform being its best protector with little threat of agricultural expansion or road-building. Much is covered by either national or county designations (AONB, AGHV, AGLV etc) and considerable control must be exerted by the conservation of many residents. There are also extensive National Trust holdings in this Zone.

**Forces for change**

Development of settlements is likely to continue in these desirable locations.

The gradual increase in watersports and boating affects this Zone. Some people feel that the constant movement and noise of generally non-productive vessels detracts from the historical integrity of the Zone and distracts them from appreciating its beauty.

The continued neglect of some woodland may lead to its deterioration; undergrowth is already very dense in places.

**Importance**

This is one of Cornwall's most important historic landscape zones. It has a wide variety of well-preserved components from the medieval period onwards; has considerable potential for research and for historic presentation for amenity and education purposes; is highly valued by local people and visitors; and contributes much to the historic character of the county.

**Principal locations in Cornwall**

Most navigable rivers are on the south coast; only the Hayle, Gannel, Camel and the tiny Bude river (the Neet) open into the Bristol Channel. The three most important rivers are also on the south side, the Tamar, Fowey and Fal (and their tributaries). Most creeks are branches of these three. There are several lesser rivers, the East and West Looes (square openings at each end of the 15th century bridge allowed rafts or barges upstream), the Helford to Gweek and, until the 14th century at the latest, the Cober which now feeds into Loe Pool and was navigable to Helston before the formation of Loe Bar blocked it.

**Variability**

North coast rivers are generally less deeply incised than those on the south coast and, in consequence, their slopes have been more thoroughly enclosed. There are, therefore, fewer woods here. Some rivers and creeks were obviously busier than others, those serving industry as well as agriculture, those with intersections on thoroughfares, and these will have more extensive remains of quays, villages etc.

**Safeguarding the Zone.**

Consider controlling proliferation of watersports. Closely control further expansion of river and creek side settlements. Resist temptations to bridge creeks and rivers as this would greatly reduce the visual and historical integrity of these channels. Encourage traditional woodland management. Identify and secure key features such as quays, limekilns.
ZONE: STEEP-SIDED VALLEYS

*Defining/distinguishing attributes*

Steep-sided valleys extending inland from creeks or coves, in some cases via tributaries, into the heart of Cornwall. The slopes have relatively little ancient enclosure and are often densely wooded. Roads and railways either run along their top or bottoms or cross them by zig-zagging routes with bridges or great spanning viaducts. Settlements are usually confined to their floors and relate to routeways or to processing industries (mills etc).

*Principal historical processes*

Some of the woodlands in these valleys will be ancient, perhaps never clear-felled, although even these will have been managed and will have formed important elements of the working landscape, probably from prehistoric times. Certainly, medieval farmers and craftsmen will have exploited them as pasture grounds (underwood), sources of fuel, coppice wood and timber. Neighbouring mining regions will also have had a close relationship with woods, again from at least the medieval period, needing both timber and charcoal (for smelting). Woodlands were gradually lost to agricultural clearing and enclosure on the less-steep valley sides from the later medieval period into the 19th century but few valleys lost their tree-cover entirely.

Valleys often formed estate and parish boundaries (the stream or river usually being the precise bound) as these deep cuts carved Cornwall into discreet blocks of agricultural land.

Communications networks found steep-sided valleys both convenient and problematic. Local routes were often steered along valleys, either along crests or more often along their bases as these provided relatively level courses. Longer distance routes, particularly those running east-west, counter to the typically north-south valley lines, often had to negotiate the valleys. Many of Cornwall's fine 16th and 17th century bridges are at the feet of steep, zig-zagging hollowed roads and 19th century railways stepped dramatically and expensively across the valleys, first on trestle viaducts and then on magnificent stone ones.

A number of medieval towns were established at bridging points in steep-sided valleys (Lostwithiel, Camelford, Grampound).

Streams and rivers had leats taken off them from at least medieval times to work the water mills used in grinding grain, stamping and smelting tin ore and fulling cloth.

Some 18th and 19th century country houses used the opportunities presented by south-facing slopes to establish ornamental parks and gardens in these valleys.

*Typical historical/archaeological components and features*

The semi-natural woodlands are historical components, having been carefully managed from prehistoric times. Within them will be found woodland banks, woodsmen's tracks, charcoal-burners' platforms and woodsmen's cottages.

Enclosures are typical of either ANCIENTLY or RECENTLY ENCLOSED LAND; there are few medieval or post-medieval farming settlements actually within the valleys, the land being worked from hamlets and farms on the higher ground.

The 18th and 19th century landscaped parts of the valleys have the elements found in the ORNAMENTAL Zone.

As mentioned above, there are a few medieval towns in this Zone (see URBAN DEVELOPMENT).

Communications systems, notably roads, railways and canals, have left their distinctive remains; the routes themselves and their ancillary features - later medieval road bridges,
18th century turnpike and public houses, roadside smithies, wheelwrights etc, railway stations, sidings, boxes, viaducts and overbridges, canal towpaths, locks and wharves.

The 20th century has brought conifer plantations to many valley sides, often onto previously cleared and enclosed ground, and residential settlements to valley bottoms. The latter have developed alongside roads and are often ribbon-shaped. Roads themselves have often been improved and greatly widened, in some cases to such an extent that the often rather winding narrow valley bottoms can no longer accommodate them and new roads are established above the valley crests.

The rivers and streams of these valleys have been exploited since the later medieval period as sources of water power for corn and grist mills serving local farming communities and also for industrial mills such as tucking/fulling mills for processing felt cloth and stamping mills and blowing (smelting) houses for processing tin. Proximity to roads and railways has also attracted a certain amount of secondary or processing industry to the valley bottoms from the 19th century.

**Rarity**

Ancient woodlands are rare in Cornwall beyond this Zone and NAVIGABLE RIVERS AND CREEKS. The various mills and many features associated with communications are also concentrated in this Zone and some are nationally or regionally uncommon (granite viaducts, stamping mills etc).

**Survival**

The ancient woodlands have been nibbled away from the medieval period to the 19th century and many have been replanted as conifer plantations in the 20th century. Some valley bottoms have also been extensively developed in the 20th century, particularly as roads and residential housing have expanded; this has removed many features. Most valleys, however, are relatively quiet and features survive well.

**Degree of surviving coherence of the historic landscape components**

Most surviving features in this Zone can be easily associated with either other related historical features or to the topographical constraints which helped form them. For example, medieval roads may no longer run down to a surviving medieval bridge but it is easy to imagine them doing so.

**Past interaction with other Zones**

Steep-Sided Valleys were in many respects servicing other Zones, in particular ANCIENTLY and RECENTLY ENCLOSED LAND. Mills were used by farmers from the surrounding farmlands and the roads took them and their produce to market from at least the medieval period. The woods were also to some extent used by inhabitants of the neighbouring Enclosed Land.

The communications lines normally had towns or URBAN DEVELOPMENT at their ends and several towns with medieval origins were established around bridging points in valleys (Lostwithiel, Grampound, Camelford). INDUSTRIAL complexes often made use of the communications networks and the water power in valleys.

ORNAMENTAL landscapes were often imposed onto Valleys.

NAVIGABLE RIVERS AND CREEKS are continuations of many steep-sided valleys, especially on the south coast.

**Evidence for time-depth**
Successive communications systems can often be seen in valleys. In the Looe river valley, for example, several lanes, a canal and a railway all make their way down from Liskeard to Looe. Enclosures from woodlands are clearly visible and within surviving woods, many now redundant features are visible - banks, tracks, charcoal burners' platforms etc. Modern roads often bypass or cut the corners off older, windier racks as they head for the medieval bridges.

Contribution to the present landscape character

Considerable. Semi-natural woodlands climb up to the valley crests and form relatively dark patches in the landscape. People travelling around Cornwall will spend much of their time either in valley bottoms or negotiating deep valleys. Medieval road bridges and 19th century viaducts are important landmarks.

Values and perceptions

People are usually on the move in this Zone. The woods are appreciated in a county with relatively few trees and many Cornish valleys are exceptionally pretty.

Research and documentation

With the exception of surveys of the industrialised Luxulyan Valley and Kennal Vale, relatively little research has been undertaken, although documentation can be expected to be good. The history and archaeology of woodlands in Cornwall has been particularly neglected and the development of long-distance road networks has not received the attention it deserves.

Potential for historical and archaeological research

Woodlands and communications networks will repay historical and archaeological research as will local studies of particular valleys, especially if they concentrate on the valleys' roles as service sectors for the surrounding farmland and local industries.

Potential for amenity and education

Access to certain woodlands could be increased and the presentation of their historical aspects improved. Some industrial sites and complexes may also be better presented. On the whole though, the constraints of topography, property boundaries and potentially dangerous transport systems makes presentation of features in this Zone rather difficult.

Condition

Twentieth century developments (conifer plantations, new roads, residential housing etc) have damaged features in several valleys but in most, largely those without main roads running along them, features are quite well-preserved. Some woodlands are neglected, no longer being properly managed.

Vulnerability

Some valleys fall within national or county designations (AONB, AGHV, AGLV etc) but most do not. The steep sides of valleys are themselves constraints to many forms of damaging development. Most later medieval bridges and some viaducts are Listed Buildings. Most viaducts are still used by British Rail but those on disused branch lines are vulnerable to either decay or demolition.

Forces for change

Residential settlement and road improvements are likely to be the main threats to the historic character of this Zone. Woodland can be expected to be increasingly neglected and attempts to replace broadleaved wood with conifer plantations can be expected.
Importance
A fairly important Zone with some features rare elsewhere. The coherence of its components is good as is evidence for time-depth and the Zone contributes much to general landscape character.

Principal locations in Cornwall
Found in all parts of the county but the densest concentrations are in its eastern half.

Variability
Eastern valleys are generally longer and more heavily wooded than those further west. The Lynher, Inney and other tributaries of the Tamar are particularly long. Rivers running to the north coast are usually shorter but tend to be deeper with steeper sides, as around St. Gennys and Boscastle.

Safeguarding the Zone
Encourage retention of broad-leaved woodland. Numbers of unimproved mills are now very low; consider with care any further applications for conversion or improvement.

ZONE: PREDOMINANTLY INDUSTRIAL

Defining/distinguishing attributes
In the Zones mapping, only extensive areas of industrialised land are placed in this Zone, generally over c. 50 hectares. Most will be the sites of extractive industry (mining, quarrying, china-clay working) and some will be still active. Where relict industrial landscapes have been overwhelmed by woodland or have become absorbed into Upland Rough Ground, they are included in other relevant Zones. The effect of these decisions is to significantly under-represent industry as most industrial sites are fairly confined and many derelict sites have been classified in other Zones.

Principal historical processes
Cornwall has been an industrial or semi-industrial region since the Bronze Age. It is probable that both tin and copper were streamed and mined (respectively) from prehistory. As yet, the archaeological evidence for this has been indirect, largely because later workings have tended to be in the same areas as the earliest.

Tin-streaming was a major industry in Cornwall, and particularly on Foweymore (Bodmin Moor) and Blackmoor (The Hensbarrow District) in the later medieval period. As easily worked alluvial and eluvial deposits of shode (tin ore dislocated from the parent lodes and concentrated by various geomorphological processes) were becoming exhausted, the tinner began, from the 15th and 16th centuries, to turn their attention to the lodes themselves and became miners proper. They worked at first from the surface but as rock-breaking and pumping technologies improved began to create deep shaft mines and by the late 18th century flourishing tin and copper mines were scattered around each of Cornwall's mining districts (Callington, Bodmin Moor, Fowey-St Austell, Hensbarrow, Polgooth, St. Agnes, Camborne-Redruth, Wendron-Marazion, St. Ives and St. Just). Engine houses were becoming commonplace.

Copper continued to expand until the mid-19th century and tin for a few decades more but a combination of cheaper foreign imports and the gradual exhaustion of the more easily worked lodes led to rapid declines in both by the end of the century. Tin mining has
struggled through the 20th century at a handful of mines but now, in 1996, just one mine, South Crofty, near Camborne, is operational.

Granite quarrying was largely local and confined to surface rock until the early 19th century. Then new technologies and new national and international markets for precision-dressed stone for major civil engineering and monumental architecture saw the quarries of Mabe, Bodmin Moor, Lamorna-Sheffield, and Hingston Down flourish. The great pit at Delabole and the coastal quarries has been offering up Cornwall's slate roofs since the medieval period and has also been sending its slate to the continent and southern England since that time.

China-clay working began in Cornwall in the mid-18th century. Early pits and tips were small-scale, and fitted around the local farms but, from the mid-19th century, more efficient extraction and drying methods led to larger pits and then, in the early 20th century, pits and tips began to dominate their local landscapes, as they do today.

There were and are processing plants and manu factories ancillary to the extractive industries, as well as industrial tramways, wharves etc.

Typical historical/archaeological components and features

This is a complex Zone, with each form of extractive industry having its own evolution and thus sequences of components and features.

Tin streaming: Cuttings from c.1.0 to 18.0m deep, c. 10 to 80m wide, with patterns of linear or ramped dumps of stones and waste in their bottoms. Leats and dams along their sides and on the slopes around. Waste from streamworks has silted up most of the County's estuaries.

Mining: Surface-mining left great openworks (like Treveddoe, Mulberry Pit) or runs of densely packed primitive shafts (as at Goonzion Downs or on Kit Hill) with now overgrown heaps.

Shaft mining has often left distinctive structures: engine houses for pumping, winding and stamping, dressing floors for processing the ores, count houses, magazines, dries, tramways etc. The shafts themselves are often hedged or fenced around.

Granite quarrying: Dimension stone quarries have enormous finger dumps of large angular waste blocks trimmed from the main product. Quarries have vertical cliffs, corrugated iron sheds, deep, dark pools.

Other quarries, for roadstone, rab or slate, have fewer dumps -most of the excavated material being used. Several still work (granite quarries at de Lank and Hantergantick; slate at Delabole and Trebarwith; roadstone at various places).

China-clay working: The St. Austell China-Clay Area is a working industrial landscape and the remains of 18th, 19th and early 20th century clayworks are gradually being either eaten by pits or dumped on by tips. Bodmin Moor and West Penwith have better examples of relict works. Here are small-scale pits with simple finger dumps and early, miniature conical 'sky-tips', ruined engine houses and dressing floors.

The active works have pits which are enormous; Littlejohns Pit is more than a square kilometre in extent. Tips are no longer conical but stepped. Once landscaped and resoiled, they become new hills. Plant is equally large-scale and the St. Austell clay area resounds to the noise of monitors (water-jets), great dumper trucks and the sirens of reversing vehicles.

Rarity
Extractive industries can, of course, exist only where their object lies. So china-clay works are nationally confined to Cornwall and parts of Dartmoor and tin mines to the same region. Copper mines are found in other parts of Britain. Granite quarries are found in Scotland but the dimension stone quarries are nationally rare. Slate quarries are found in north Wales and the Lake District but complete examples are relatively rare and always spectacular on the north Cornish cliffs.

**Survival**

Mixed. In some areas, such as on marginal land (cliffs, uplands etc), complexes from the medieval period or beyond can survive in excellent condition. Elsewhere, derelict land has been gradually tidied-up by farmers and in certain areas (St. Just, Redruth areas for tin-mining; de Lank valley for quarrying, Delabole for slate; the St. Austell area for china-clay working) the remains of early industry have been either damaged or destroyed by later or still active workings.

**Degree of surviving coherence**

Where a complex survives well then so does its internal coherence. Being very mechanistic, extractive industry sites can be disentangled so that each element can be seen in relation to others. When elements have been removed the whole pattern can, however, be difficult to understand.

Certain areas of the county have many small complexes and these are interconnected by shared transport and processing infrastructure (good examples around Caradon-Minions, Redruth-Camborne Mining Area and the St Austell China-Clay Area).

**Past interaction with other Zones**

Usually an imposition onto other Zones as extractive industry is determined by the location of its object. So mines can be found in all Zones, even URBAN DEVELOPMENT (e.g. Redruth) or DUNES (Perran Sands).

A number of Zones were altered by historical processes associated with industry. RECENTLY ENCLOSED LAND was partly stimulated in the 18th and 19th centuries by increasing and mobile labouring populations. The form of ANCIENTLY ENCLOSED LAND (in particular, the enclosure of strips) was also affected by medieval industrialisation. Some woodland and moorland has developed on abandoned industrial ground, or derelict land.

**Evidence for time-depth**

Most mines, quarries and clay-works develop over some time and there are usually traces of earlier technologies, plant, dumps etc among the remains of the latest. In some types of site, particularly quarries and clayworks, the earlier features may be partly devoured by later workings. Most extractive industries did not bother to remove traces of earlier features from the land they were exploiting. So fragments of earlier settlements and fields etc are often found within industrial complexes.

**Contribution to the present landscape character**

Industrial remains form some of the most distinctive landmarks in the Cornish landscape. Tall, steeply gabled engine houses with part-brick chimney stacks at their corners are Cornish icons but other features have an equally profound impact. The finger dumps of granite quarries, the spectacular cliff slate workings, the old conical sky tips and now the massive stepped dumps of china-clay works, the deep cuttings of streamworks and the often scruffy, semi-derelict or overgrown industrial buildings, yards, lanes, tramways etc associated with extractive industry.
The more indirect effects industry has had are not as often appreciated: the development of certain towns, the enclosure of heathland, the generation of wealth. Ironically, historic industrial landscapes are now often the last refuges of heathland.

Values and perceptions

Complex feelings, to a great extent dependent on closeness to the industries, are generated by industrial remains. For many they are reminders of past employment and great days in Cornish history, when Cornwall was the hub of British tin and copper mining, granite quarrying and steam engine manufacture.

Many are still inspired by the remains and industrial history and archaeology are rapidly growing interests in Cornwall.

Others find them unattractive, dangerous and distinctly non-picturesque. There are campaigns to tidy up and make safe derelict industrial sites.

Research and documentation

Medieval works are fairly poorly documented before tin-sett bounding had to be registered at the end of the 15th Century. The remains of streamworks and associated features have been intensively studied in recent years (mainly by CAU and Sandy Gerrard).

Later mines have received attention from historians and archaeologists as close as for any other type of site in Cornwall. Quarries and clayworks are relatively neglected but even here individuals have undertaken detailed studies, e.g. coastal slate quarrying at Tintagel.

Potential for historical/archaeological research

Individual complexes can be researched in great detail and there remains much to be done in terms of documenting particular works.

Archaeological recording (survey and excavation) has only recently been applied in a systematic way to industrial sites and landscapes in Cornwall and the potential for discovering important features, recording, interpreting and presenting them is considerable.

Most histories have as yet been technical (dealing with steam engines, and other equipment) or economic (mine yields etc). Relatively little work has been done on the social background of Cornish industry, in both the medieval and modern periods.

Potential for amenity and education

Industrial 'heritage' is a rapidly expanding element of the Cornish tourism industry. It is usually handled relatively well as the sites are potentially dangerous and competent and responsible people are therefore usually involved (e.g. Geevor Mine, Wh. Martyn clay museum).

Education is involving children more in their area's industrial past and this process will only continue to increase with bodies like District Councils, Groundwork Trusts, and the National Trust all engaged in promoting the presentation of industrial monuments and landscapes.

Condition of historical/archaeological components

Varies considerably. Some sites have been almost entirely destroyed, others are virtually intact, left with most features except equipment still in place (e.g. Carbilly quarries, Treveddoe openwork, Burnt Heath clayworks and Wheal Jenkin Mine), but most have seen some depredation, usually before Cornwall entered the post-industrial age and these
features were recognised as meaningful by people living beyond their immediate neighbourhood.

Vulnerability of components
Continually rising awareness of the value and importance of industrial remains will make them increasingly less vulnerable. Some receive protection through being Scheduled Monuments or Listed Buildings.

Many sites fall within designated areas, especially AONBs and SSSIs (mainly the cliff sites).

Forces for change
Presentation of sites to the public brings attendant threats to certain components. In particular, the making safe of mine sites often involves capping shafts, a process which is usually destructive of features around shaft-heads. Most derelict land reclamation in Cornwall is now usually preceded by an archaeological assessment and its execution is guided by archaeological recommendations.

The active sites continue to expand. The China-Clay industry will eventually (probably mid-21st century) have either excavated or tipped over most of the 70 square kilometres of the china-clay area north of St. Austell, in the process destroying the remains of earlier workings.

Decay of structures will continue apace if they are not consolidated.

Importance
Highly important in terms of components, rarity on a national level, contribution to Cornwall's character and its potential for research and amenity.

Principal locations
The granite intrusions are the foci for most industrial remains and working sites. Granite itself is quarried, china-clay is derived from granite and most metals are closely associated with granite formation and cooling.

Slate quarries are found mainly to the north of Bodmin Moor and south of St. Gennys.

Variability
Considerable variability in basic industry, components associated with each, size of individual workings, dates of workings etc. So much variability that each site is unique.

Safeguarding the Zone
Grants for consolidation and presentation should be encouraged. Statutory protection of the most important sites and complexes should be extended.

ZONE: URBAN DEVELOPMENT

Defining/distinguishing attributes
Built-up areas from larger villages (e.g. St. Buryan, Menheniot, Gerrans) upwards. Includes urban industrial estates and also small areas of open land if surrounded by built-up land.

Principal historical processes
A complex Zone with numerous historical trajectories contributing to its present form.

Many rural settlements will have their origins in the Early Medieval period, or even earlier, but most extant buildings (except churches) are post-medieval or modern. Lanes and open
spaces within settlements may be medieval. Virtually all rural settlements large enough to be included in this Zone have extensive later 20th century housing estates at their edges.

The Zone mainly comprises small towns. Many have medieval origins, one or two are Early Medieval (Bodmin, Helston, St Stephens-by-Launceston) but many others are post-medieval industrial, fishing/harbour and tourist towns.

Most medieval towns were fairly evenly spaced and provided markets for agricultural hinterlands, although some had industrial functions, notably the Stannary towns where smelted tin was coined (taxed). Some were coastal and had harbours and fishing populations (Marazion, St. Mawes, Padstow, Boscastle, Looe, Fowey) while others were on tidal rivers (often now silted) and were trading centres (Lostwithiel, Tregony, Truro, Wadebridge, Grampound, St Germans, Saltash). These medieval towns were small, with just three or four main streets and small resident populations.

In the post-medieval period, the old towns grew slowly until the 18th century when increased mining activity led many to expand more rapidly and the growing commercial activity in the county caused some others to follow. A number of towns, however, retained their medieval size and layout until the 20th century (Week St Mary, Padstow, Kilkhampton, Camelford, Stratton, Boscastle, Tregony, Grampound, West Looe and St. Germans).

Industry, whether metal mining or china-clay working, created several new towns - Redruth, Camborne, St. Just, St. Austell - and many industrial villages (e.g. Pendeen, Botallack, Lanner, St. Day, Carharrack and Pensilva, then Delabole by the great slate pit and in the St. Austell clay country, Stenalees, Bugle, Foxhole, Nanpean and Penwithick), mostly from the late 18th century. On the coast, industrial harbour towns and villages were established; towns like Hayle; villages like Newquay and Charlestown.

Also on the coast are fishing and harbour towns and villages, many with medieval origins, places like St. Ives, Mousehole, Newlyn, Porthleven, Mevagissey, Portscatho, Coverack and Port Isaac. More recently, from the late 19th century, some coastal settlements have developed to serve the tourism industry. Most were extant harbour or fishing settlements (Newquay, Perranporth, Penzance, Carbis Bay, Bude Haven).

In the 20th century, virtually all settlements in this Zone have been expanded by the provision of housing estates for local families and new residences for a growing population of retired people and people wanting second or holiday homes in Cornwall. Many settlements are largely residential now, most of their original industrial, harbour and commercial functions having died, their original cores now dwarfed by 20th century expansion.

Typical historical/archaeological components and features

Their long and complex histories have produced, in Cornish towns and villages, places with a wealth of historical and archaeological features. Clearly some settlements will be simpler than others, notably the post-medieval industrial and harbour villages but all will have a variety of building types, ages and styles, different sectors for residence, commerce, industry, storage, recreation, burial and ceremonial. Some will also have military remains (from medieval castles to 20th century pillboxes). Most settlements will have rich subsurface remains with the footings of buildings and features of medieval or even earlier date.

Rarity

Cornwall is an important county for both medieval planned and organic towns. Some are little changed from their original layout and are, as such, relatively rare nationally. Of the
more recent features, those associated with distinctively Cornish history will generally be rare nationally. In particular, the Institutes, coinage halls, count-houses, factories etc connected with mining and, in seaside towns, the pilchard fishing cellars and lofts are rare. Cornish mining towns also possess peculiarly Cornish granite and slate miners’ terraces.

Rural settlements are numerous but the irregularly laid out Cornish hamlet is peculiar to the county.

Survival

Although Cornwall’s towns have continued to change right into the late 20th century, as places which are hubs of human activity are bound to do, the layouts and historical fabrics of most are relatively well-preserved. There was minimal bombing damage in World War Two and most towns’ main streets have essentially 19th century or earlier frontages with relatively few disfiguring, modern, standardised shop windows and signs. Towns like Camelford, Lostwithiel, Helston and Kilkhampton are particularly well-preserved.

With layouts little changed, there is a good likelihood that subsurface remains are also well preserved. Rural settlements are also generally well preserved, with modern developments usually lateral expansions form an historic core rather than replacements.

Degree of surviving coherence

The good survival of street plans in most towns allows earliest organisations of Cornish towns to be easily understood. Clearly over the centuries since most towns were established foci of activities have shifted but it is usually possible to work out sequences of relationship of features. At Launceston, for example, the medieval castle still dominates the town but other, later features, built or created in relation to it, have formed nuclei for other streets and buildings, features like the church, the market square, the old sheep market, the modern cattle market, the town hall, the railway station below the town near Newport, and, most recently, the bypass and the industrial estates arranged alongside it.

Past interaction with other Zones

Cornish towns depended on their hinterlands. Most medieval towns were primarily market-places for agricultural communities and also homes for commercial and craftspeople. Later industrial towns were also serving people who mainly worked and lived in the surrounding countryside. Even today, when most towns have become simple commercial centres, there is still a close relationship with their hinterlands, in terms of market and residence - many workers in the towns live in villages and converted agricultural buildings in the countryside.

Rural settlements or villages are usually expanded agricultural hamlets whose relationships with ANCIENTLY ENCLOSED LAND and RECENTLY ENCLOSED LAND are profound.

Evidence for time-depth

There is an abundance of material remains of the last three hundred years in most Cornish towns and the street plans, market places, and surviving medieval buildings (castles, churches etc) take people back a further four or five centuries. Street names may also reveal now lost features or activities (Tanyard Lane, Coinage Hall Street, Windmill Hill etc) and the steady trickle of discoveries of artefacts and features encountered during developments and roadworks in towns reminds observant dwellers of the richness of their town’s past.
Layouts of rural settlements are also usually essentially medieval; enclosures now used as gardens or car-standings will often have been the mowhays and yards of medieval farmsteads. More later medieval and early post-medieval dwellings and other buildings survive in the countryside than in the towns.

**Contribution to the present landscape character**

Rural settlements, with the original, medieval and post-medieval buildings made of local materials, granite, shillet, cob and slate, blend in with the fields whose hedges are built of granite and shillet. Their locations were carefully chosen, in folds of hills, sheltered but well drained, generally satisfying an observer’s wish for them to appear ‘natural’. Although they are usually in harmony with the Cornish countryside, they also play a large role in forming its character, catching the eye, providing direct human interest and forming the focus of lanes and tracks. Insensitive developments on rural settlements, such as poorly sited bungalow estates, or unshielded, standardised covered yards, can have a disproportionate effect on the landscape character.

Towns are small but closely spaced in Cornwall. The night sky always contains the orange glow of at least two towns and in the daytime, a concentration of roads, signs, edge development, the signs of proximity to a town, occur every 8 or 10 miles. Most Cornish towns are fairly low-lying and do not intrude into vistas; exceptions include the oldest towns, St Stephens-by-Launceston, Launceston itself, Bodmin, Helston and Liskeard. These are all towards the smaller end of the size range and their predominantly grey colours, based on building materials, mean they do not have a negative or disrupting effect on the landscape but rather illustrate typical Cornish urbanism; towns within and of the countryside.

**Values and perceptions**

Cornish towns are towns, not cities in the widely accepted sense, although Truro is now a city. There is little that is cosmopolitan (except, perhaps in Penzance and Falmouth) and much that is strictly functional. The only period of ostentation in architecture was the adventurous high Victorian and town centres are now brooded over by dark but ornate granite and terracotta banks, town halls and law courts. Those who appreciate urban and medieval architecture find much of interest in Cornish towns.

Hamlets and rural settlements are highly valued by both local people and visitors. Their organic layouts are interesting and satisfying to either live in or pass through, and the numerous 17th century or older buildings add beauty and antiquity to the places.

**Research and documentation**

Rural settlements have received more historical and archaeological attention than towns in general terms, although individual towns have been the subject of detailed studies (Hayle, Truro and Penryn for their buildings, Liskeard, Penzance, Truro, St Just and Lostwithiel for their histories). There have been many relatively superficial reviews of 19th and early 20th century life in Cornish towns, and an excellent analysis of 19th century Liskeard by Bernard Deacon, but apart from Maurice Beresford’s and Peter Sheppard’s brief surveys, few works on medieval and post-medieval layouts or structures. There has been virtually no archaeological excavation in any Cornish town.

In the countryside, archaeological surveys and the work of local historians have studied in some detail the general evolution of hamlets and have considered many particular settlements very closely. This work has, however, tended to be concentrated on the granite uplands and West Cornwall, and there are considerable gaps in our knowledge of much of
lowland Cornwall’s rural settlements. Again, there has been very little excavation in Cornish hamlets.

Potential for historical/archaeological research

In rural settlements, extant buildings and the layout of surviving features will repay close study and, in addition, there will inevitably be a wealth of sub-surface settlement remains, some dating back into later prehistory. The study of various kinds of documents will also shed considerable light on rural settlements.

Towns represent one of the most neglected areas of Cornish history and archaeology and yet have perhaps the greatest potential to add to the knowledge of the county’s history. There has been extremely little archaeological work of any kind within Cornish towns and architectural history has been largely confined to Listed Buildings surveys. Little work has been done on the relationship between Cornish towns and the countryside, industry, communications, the sea and the wider economic and social history of Britain and north-west Europe, all subjects whose study will illuminate the county’s history. Even the more recent history of towns, often touched on in popular books laden with Victorian and Edwardian photographs, has yet to be written.

The potential is great. The English Heritage survey of small towns, part of the ongoing Monument Protection Programme is likely to result in new research.

Potential for amenity and education

Rural settlements have most potential as attractive and architecturally interesting features to pass through by car or on foot, cycle or horseback. So long as footpaths and bridleways are maintained and not detoured around hamlets and villages (as is occasionally happening) then these settlements will continue to provide pleasure to many.

Towns are elements of Cornwall’s tourist industry, often as refuges on rainy days. Many have historical features (church, castle, bridge etc) which are displayed to visitors and some have interpretative leaflets or booklets to guide people around. There is, however, still considerable potential for discreet, unobtrusive presentation of the past in most towns. This can be aimed as much at towns’ inhabitants, particularly children, as at visitors and will have the benign effect of increasing peoples’ awareness of the historical value of their homes.

Condition of historical/archaeological components

In towns, the condition of historic buildings, streets and layouts is generally good. Subsurface features can also be expected to survive well.

Rural settlements are also fairly well-preserved where modern developments have avoided their historic cores.

Vulnerability of components

Cornwall’s towns are currently having their Listed Buildings reassessed and many more historically and architecturally important structures will receive statutory protection. Conservation Areas also exist in most towns, usually in the historic cores, often coinciding with the CAU-defined Historic Settlements. Local Plans reinforce these planning controls. The Sites and Monuments Record for towns is being gradually improved but requires a systematic reassessment of urban archaeological remains.

Some of the larger and more important rural settlements also have Conservation Areas, in particular Districts (notably Penwith), and most of rural Cornwall was covered in the main re-Listing surveys of structures in the 1970s and 1980s. Enclosures around Listed Buildings...
should technically be also protected as curtilages. Some settlements will fall within areas covered by broader designations (e.g. AONB, Areas of Great Historic Value etc).

Forces for change

Being the places where people live and carry out much of their business, settlements have always changed more rapidly than most other elements of the landscape and will no doubt continue to do so. The accommodation of new means of transport (road, rail and now road again) is a key area for large scale, often damaging change, both within towns and also in their immediate surroundings.

Town centres are vulnerable to piecemeal facelifts by competitive businesses keen to attract customers, and residential districts are most at risk from certain forms of home improvement, most notably at present by the replacement of windows, doors and roofs by standardised plastic and asbestos materials.

The character of towns is being most fundamentally changed by the construction of new housing, often in the form of estates of virtually identical houses whose architecture does not appear to have its roots in Cornish traditions.

The decline of the commercial centres of many towns, as out-of-town superstores and the concentration of quality shops in places like Truro and Plymouth take their toll, is perceived by most people as a negative force for change, removing traditional businesses and gradually removing the meaning from these places.

Rural settlements are most vulnerable to insensitive conversions from agricultural to purely residential accommodation; the creation of mini-suburbs in the countryside and the draining of historical meaning and distinctiveness.

Importance

Towns and villages are of high importance as features of the Cornish landscape having a wealth and great variety of historical and archaeological components, demonstrating considerable time-depth and contributing much to the county’s appearance and character. There is also enormous potential for further historical research and educational amenity use.

Principal locations

Towns are fairly evenly spaced through the county. Most appear to be secondary to principal communication routes, whether on navigable rivers (Truro, Tregony, Grampound, Wadebridge, Saltash, Lostwithiel, Helston, St. Germans), on the coast (St. Ives, Penzance, Marazion, Porthleven, Falmouth, Mevagissey, Fowey, East and West Looe, Bude, Padstow, Boscastle, Newquay, Perranporth, Hayle), or on long-distance over-land routeways (Launceston, Camelford, Kilkhampton, Callington, Liskeard, Bodmin, Redruth, Camborne, St. Columb Major).

Rural settlements are scattered throughout the Anciently and Recently Enclosed Land Zones.

Variability

Each town is different in size, layout, adaptation to location, local materials used in its construction, principal phases of construction (and therefore design or architecture), current vitality etc.

Rural settlements also vary according to materials in their buildings (granite, shillet, cob, brick, concrete, slate, thatch) and in their size and layout.

Safeguarding the Zone
The use of Conservation Areas to control planning in towns and rural settlements should be retained and extended. Regulations concerning replacement windows, doors, roofs etc should be enforced. The loss of historic landscape (Anciently Enclosed Land etc) at the edge of towns and rural settlements should be carefully considered when dealing with plans for edge developments (housing/industrial estates, bypasses etc). Historic layouts and features, for example buildings relating to commercial, social and religious concerns, are very important for maintaining links with settlements’ origins and development and for enhancing local distinctiveness. They should be explicitly identified and preserved. Development in towns should respect traditional layout of streets, open areas, burgage plots etc. Large developments, such as in-town car parks, which over-ride and obliterate historic town/village features should be discouraged and careful consideration given to alternative proposals and sites.

ZONE: ORNAMENTAL

Defining/distinguishing attributes

The deliberately and carefully manipulated landscapes, parklands and gardens surrounding large country houses, normally of 18th and 19th century origin. Urban parks and large cemeteries are ornamental in character but are not included here because the map scale is too small.

Principal historical processes

Some later medieval Cornish houses had deer parks and small gardens but most of these were disparked or decayed by the mid-16th century. Only Boconnoc still has a medieval deer park.

The majority of ornamental landscapes in Cornwall were created in the 18th, 19th and very early 20th centuries, often by people made wealthy by local copper and tin mines. Designed parklands, with carefully positioned clumps of trees, open vistas uninterrupted by hedges (sunken ha-has were used instead), and carefully produced ‘natural’ aspects were created at places like Werrington Park, Tehidy and Trewarthenick by the late 18th century. In the 19th century, the emphasis shifted towards laying out gardens with specimen trees and shrubs, camellias, rhododendrons and more delicate exotic plants. These were smaller, darker and more intricately planned, being enclosed by planted shelter belts, and included gardens like Heligan, Trengwainton, Trebah and Glendurgan.

Many gardens declined in the early 20th century as the maintenance of large teams of gardeners became increasingly difficult. A large number do survive, however, many through being either passed to the National Trust or opened to the public. A recent survey of historic gardens (Hunt and Pett, 1991) listed no less than 224 in the County, most of which will qualify as ornamental landscapes, although many are too small to be mapped in the present exercise.

Typical historical/archaeological components and features

Eighteenth century parkland was designed with the great house as its focus; indeed, many houses were positioned and designed to obtain the most satisfying view of their ornamental landscapes, houses like Lanhydrock, Werrington, Pencarrow and Heligan. Walled gardens, fruit and flower houses were clustered around the house’s sides and rear, carriage drives brought residents and visitors along picturesque routes through the landscape, the most spectacular being the ‘velvet path’ running through the Luxulyan valley to Pelynt House, near Lostwithiel and the creekside drive from Tresillian to Tregothonan.
Clumps of trees, ponds, ha-has, gazebos or summer houses and grottos were features of the parklands. Earlier features were often preserved by incorporation into parks; the medieval fields at Lanhydrock and Trelissick being good examples.

Nineteenth century sheltered and exotic gardens have networks of paths leading through plantings of trees, shrubs and exotics, many of which survive. At certain points ‘features’ like gazebos, arches, urns etc add to the beauty of the places. Streams trickle through many, sometimes bridged, sometimes dammed to form pools, always carefully planted with tree ferns, gunnera, candelabra primula etc.

**Rarity**

Cornwall’s gardens are most important for the trees, shrubs and plants which flourish here but which either struggle or fail further east, in England. Many were planted by 19th century collectors or breeders and are now mature. Their replacement is therefore very difficult.

**Survival**

Of 83 Cornish parks and gardens listed by Edgar Thurston in 1930, only 5 have been lost, either through destruction or total neglect (Hunt and Pett, 1991, 14).

Most of the others are largely intact although a few have been reduced.

**Degree of surviving coherence**

In the gardens which survive, considerable trouble is taken to maintain original designs - pathway patterns, planting arrangements, constructed features etc so that historical coherence also survives well.

**Past interaction with other Zones**

Ornamental gardens are usually impositions onto other historic landscape character Zones. Most are in ANCIENTLY ENCLOSED LAND (AEL) and STEEP-SIDED VALLEYS, although a small number were taken from RECENTLY ENCLOSED LAND and UPLAND ROUGH GROUND. Gardeners and other workers will probably have lived in neighbouring AEL or URBAN DEVELOPMENT and owners often obtained their wealth from nearby mines (PREDOMINANTLY INDUSTRIAL).

**Evidence for time-depth**

Most ornamental landscapes were created along the lines of single designs and have not been altered from them very significantly, beyond limited expansion. A few, however, have elements of earlier gardens or parks incorporated into them the avenue at Lanhydrock, ha-has at Trewithen. Faint traces of earlier garden layouts survive at places like Pencarrow, Glynn and Bonython where lawns overlie old parterres.

Earlier features are sometimes worked into garden designs but are more often removed or levelled. At Trewidden, a disused mine openwork has become a tree-fern shelter. Elsewhere, earlier field systems survive as low earthworks in open areas, as at Lanhydrock and Trelissick.

**Contribution to the present landscape character**

An ornamental landscape stands out in the Cornish landscape, mainly through the unusually dense grouping of large and varied deciduous trees. The placing of many houses within more extensive estates, many of which imposed stylistic covenants on tenants standard gateposts, window or chimney designs etc enables them to have influence over landscape features over larger areas.
Values and perceptions

Those ornamental landscapes open to the public become favourite resorts. Their scale and exoticness, combined with the obvious wealth which enabled their creation, can induce a pleasant weakness, but most people come to enjoy the flowers and trees. There is a very popular gardens festival each year.

Research and documentation

Nineteenth century topographers and local historians tended to describe or note important houses and their grounds alongside details of the families occupying them. Many were also drawn and engraved. These form the basis of most recent work (National Trust guides, Hunt and Pett 1991, and more popular reviews of Cornish gardens and houses). The recently formed Cornwall Gardens Trust has begun a campaign of surveying surviving gardens.

Relatively little work has been done on the economic and social background to the formation of ornamental landscapes in Cornwall.

Potential for historical/archaeological research

The application of archaeological surveying, excavating and recording methods to ornamental landscapes elsewhere in Britain has confirmed the potential these techniques hold for understanding the evolutions of particular gardens and parks, revealing largely lost earlier features and making clear the purpose of enigmatic ones.

Detailed analysis of garden books and diaries will help reveal the workings of historic gardens and the desires and motives behind their design.

Studies in 18th and 19th century taste and display, together with work on the sources and expenditure of wealth in Cornwall will help place these ornamental landscapes into historical contexts.

Potential for amenity and education

The large numbers of people who visit and enjoy those parks and gardens open to the public testify to the pleasure these places can give. Many gardens are not opened to the public at all but others, while not open on a regular basis, do have their gates thrown open on one or two days each year, usually when certain plants are at their best, and people do get the opportunity then to enjoy such treasures and gems as Tregothnan, Trehane and Bosahan. All Cornish gardens are different and while some stay private, there will always be a potential for further amenity provision.

Condition of historical/archaeological components

Some historic gardens and parks have disappeared entirely and others have been reduced but most of those extant in the early 20th century are still intact. These are generally treasured by their owners and the condition of components is well-maintained. The restoration of Heligan Gardens after half a century of total neglect has caught the public imagination.

Vulnerability of components

Many Cornish gardens receive some recognition by being included on the English Heritage ‘Register of Parks and Gardens of Special Historic Interest in England’. These are graded along the same lines as Listed Buildings (I, II* and II in descending order of importance) and Cornwall possesses two Grade I parks or gardens (Mount Edgecumbe and Port Eliot) and four Grade II* parks or gardens (Trewithen, Tregrehan, Tregothnan and Boconnoc). Other gardens are held by the National Trust, or municipal authorities and councils. There
is also a climate of opinion that would make the deliberate destruction or wilful neglect of an historic park or garden unlikely.

Forces for Change

The principal forces for change are the occasional storms and gales, coupled with the maturity of trees and shrubs planted up to 200 years ago, particularly in shelter belts whose existence is vital for the survival of delicate gardens. Replanting had often been neglected in the difficult years of the early 20th century and some hard decisions are now being or will soon be faced by owners regarding the feasibility of maintaining certain gardens or parks in their present forms. The destruction caused by recent gales has precipitated change at some sites.

Development is beginning to impact on historic parks, e.g. golf courses at Tehidy, Killiow; timeshare houses on Clowance Park.

Importance

Cornish ornamental landscapes are regarded as of high importance for their rarity, generally good survival, their amenity value and for the light they throw on the higher levels of Cornish society in the early modern period. They are also exceptionally beautiful and romantic places.

Principal locations

Most parks and gardens are in lowland parts of Cornwall, many are in sheltered valleys there are a large number along the creeks of the Fal. There are also clusters around the more important towns, particularly Penzance, Falmouth, Truro and St. Austell.

Variability

There are consistent themes in Cornish ornamental landscapes but the use made of local topography makes each garden and park an individual.

Safeguarding the Zone

There should be a presumption in favour of preserving all those historic gardens listed in Hunt and Pett (1991) when considering development proposals. Proposals for renovation or change in parks and gardens should be guided by a detailed understanding of their historical development. Owners should be encouraged to open their parks and gardens to the public at least occasionally each year so that people can appreciate these beautiful places.

ZONE: RECREATION

Defining/ distinguishing attributes

Late 19th and 20th century tourism and recreation features. Mainly coastal chalet/caravan parks, theme parks, and golf courses. Smaller areas of recreational facilities are absorbed into other Zones, particularly URBAN DEVELOPMENT.

Principal historical processes

Cornwall’s tourism industry developed through the 19th century, aided by the introduction of railways. It has had a seaside bias until the later 20th century when ‘quality’ tourism has encouraged more visitors to ‘heritage’ sites and inland landscapes.
Some golf courses were established in the 19th century (Lelant, Bude and Rock had 18 hole courses and Bodmin, Falmouth and Newquay had 9 hole courses in 1896) but most are relatively modern.

Chalet parks were given a boost through the adaptation of Second World War hutted camps in the 1950s and 1960s.

*Typical historical/archaeological components and features*

The chalet and caravan parks mainly comprise late 20th century standard structures served by simple concrete-block ancillary buildings and tarmac or concrete drives. A few are of more interest, being early 20th century and with chalets which are almost vernacular (e.g. on Riviere Towan, Phillack and Freathy Cliff, Whitsand Bay).

Theme Parks vary in form and extent but most have late 20th century concrete-block buildings and many essentially temporary features. Golf courses are usually landscaped, with many earlier historical features removed or damaged (e.g. field boundaries). Clubhouses and ancillary buildings are usually modern concrete-block structures.

All recreation sites have extensive car parks.

*Rarity*

Cornwall is relatively well-endowed with seaside Recreation sites. Some are 19th or early 20th century in origin and, as such, are fairly rare in national terms, being largely confined to attractive coasts.

Golf courses are becoming increasingly common but, again, Cornwall has several early courses.

*Survival*

The Zone is generally active, just one or two theme parks have closed, and both the Zone and the components within it survive well.

*Degree of surviving coherence*

Being active, the components of the Zone interact coherently.

*Past interaction with other Zones*

Recreation sites are normally found close to URBAN DEVELOPMENT sites, particularly those on the coast with a history of involvement in the tourism industry. Otherwise, Recreation has a relationship of imposition on other Zones, so several golf courses are laid out in DUNES or in ANCIENTLY ENCLOSED LAND, as are chalet/caravan parks and theme parks.

*Evidence for time-depth*

It will be possible to demonstrate the gradual growth of Recreation complexes. Most chalet/caravan and theme parks obliterate earlier historical features but golf courses often retain fragments of field systems, ancient woodlands etc in their landscaping, although the coherence and legibility of these features is reduced by the fragmentation.

*Contribution to the present landscape character*

Ranks of chalets and caravans, masses of parked cars, the startlingly neatly trimmed fairways and greens of golf courses, together with their visitors make these prominent features of the landscape, particularly in the summer months of the main tourism season. Some caravan parks and camping grounds, however, can almost vanish in the winter.

*Values and perceptions*
Ambivalence is perhaps more pronounced here than in any other Zone. Some people loathe Cornwall’s Recreation sites, not just because they are seen as blots on the landscape but also because they are the physical manifestations of the annual invasion of tourists bringing unwanted values, cars and noise to the county. For many people, recreation sites represent Cornwall’s real economy, and security for the future. Visitors who have enjoyed glorious Cornish summer holidays develop deep affection for these sites.

Research and documentation

The history of tourism in Cornwall has so far received relatively little attention. One or two of the older golf clubs have had their histories studied.

Potential for historical/archaeological research

Although the tourism industry has had a profound impact on the county’s recent economy, infrastructure and social structure, the potential for meaningful and relevant research of the Recreation Zone itself is limited. Nevertheless, work on this aspect of Cornwall’s history should be encouraged, not least because future developments may be better predicted and planned for with the benefit of a fuller understanding of tourism’s history.

Potential for amenity and education

The Zone is, of course, an amenity for many people, although it also reduces the amenity value of certain stretches of coastline or areas of inland Cornwall for others.

Condition of historical/archaeological components

As active sites, components are generally well preserved. Features from earlier periods, overlain by the Zone, are, however, likely to be generally poorly preserved.

Vulnerability of components

The Zone normally receives no specific protection, although being generally found on the coast, it does often fall within the AONB or AGLV.

Forces for Change

Golf courses are still being created and chalet/caravan parks expanded. Theme parks are also still being established. Within the Zone, gradual refurbishment and updating threatens some early features. Constraints on conspicuous development along Cornwall’s coast are beginning to exert control on the locations and forms of Recreation complexes.

Importance

While contributing significantly to Landscape Character, the Zone must be regarded as of low importance in terms of the Historic Landscape.

Principal locations

A clear coastal bias, reflecting the emphasis on seaside holidays in the tourism industry. Golf courses exist near most Cornish towns.

Variability

Chalet/caravan parks vary mainly in scale, not form. Each theme park has its own angle. Most golf courses are essentially similar.

Safeguarding the Zone

The continued expansion of the Zone should be controlled as a principal concern is that other more important Zones are imposed upon and either damaged or destroyed by it. At present, the greatest threat is from golf courses which are extensive and tend to be sited on
the important Zone, ANCIENTLY ENCLOSED LAND. Their construction usually involves the dismantling of existing landscape features in the creation of new ones. Screening (trees or shrubs) around camping and caravan parks will lessen their impact on neighbouring historic Landscape Character Zones.

**ZONE: MILITARY**

*Defining/distinguishing attributes*

Extensive modern military complexes, securely fenced, other than AIRFIELDS. Some complexes are too limited in extent to be mapped in this Zone; others, like the camp and radar station at Penhale near Perranporth, have been considered to be secondary to more dominant historic Landscape Character Zones (DUNES or COASTAL ROUGH GROUND).

*Principal historical processes*

Most blocks of this Zone are in the extreme south-east corner of Cornwall, near Plymouth and its naval dockyard and associated military complexes. The area has a long military history, Plymouth having been an important naval port since the later medieval period, but the present complexes are essentially modern in character, with the exception of Tregantle fort which re-uses a mid-19th century site and Pendennis which has remains from all periods from Henry VIII's time. Airfields are considered separately, except for the WW2 landing strip at Cleave, near Morwenstow, which has so changed its character in the later 20th century by being made an Early Warning Station and the barracks and depots around RNAS Culdrose.

Earlier military complexes are too small to be included in this Zone, although Palmerstonian forts around Plymouth came close to being included. Cornwall has been important militarily since early prehistory. Neolithic hill-top enclosures are found throughout the county as are later Iron Age hillforts and contemporary cliff castles. Defended farming hamlets, rounds, are found throughout ANCIENTLY ENCLOSED LAND and date from the Iron Age to the Romano-British period, with some being used into the Early Medieval period. Later medieval castles and post-medieval forts survive in towns, on the coast and along strategic routes.

*Typical historical and archaeological components*

These are confined to the Zone (i.e. generally modern complexes). Security means knowledge is limited but the SE Cornwall complexes are mainly barracks and fuel depots while Cleave has a group of large white Early Warning dishes and modern ancillary buildings, and Culdrose has barracks and depots.

*Rarity*

As military installations become more centralised, they become rarer. In Cornwall, the Zone is very limited.

*Survival*

As working installations, mainly with few earlier features or components, they survive well.

*Degree of surviving coherence of the historic landscape components*

As working installations, coherence is complete.

*Past interaction with other Zones*
Military installations are normally impositions by the State on a landscape for strategic reasons and interaction with other Zones is minimal beyond service relationships (victualling, recreation, some accommodation).

Evidence for time-depth

Unless re-using earlier military sites (e.g. Cleave airfield, Pendennis and Tregantle Palmerstonian fort) the evidence for time-depth is confined to features (hedges, tracks etc) captured within secure fencing and not obliterated.

Contribution to the present landscape character

Although fairly small pockets of land, the Zone dominates both physically and, through security devices like fences, psychologically the Areas where it exists. The satellite dishes of Cleave station are landmarks visible throughout north Cornwall.

Values and perceptions

Cleave satellite dishes and Culdrose airfield are now well-known landmarks and the other bases are accepted as traditionally appropriate features of the Plymouth district.

Research and documentation

As defence installations, the modern components are generally secret, but military features from earlier periods have received considerable attention from military historians.

Potential for historical/archaeological research

As an instance of the nation state reaching down to the local level, military installations have considerable historical importance. The inherently competitive nature of warfare means that features change more rapidly in this sphere of human activity than most others and there is scope for much detailed archaeological research.

Potential for amenity and education

While operational, there will be little or no potential for amenity use but once decommissioned military sites have considerable potential, being dramatic, exotic and disturbing sites.

Condition of historical/archaeological components

The modern components, being in use, will be well maintained but, as these are active installations, the condition of earlier features may be impaired.

Vulnerability of components

As noted above, earlier features are vulnerable to alteration or removal by changes in current installations. The armed forces do take their responsibilities to historic buildings seriously.

Forces for change

Defence cuts at government level threaten the existence of current installations. Decommissioning may involve the removal of dangerous or sensitive features.

Importance

A Zone which contributes to landscape character disproportionately to its scale and which has considerable research and amenity potential once installations are decommissioned.

Principal locations
Concentrated now in SE Cornwall, with Cleave in Morwenstow, Pendennis near Falmouth and Culdrose on the Lizard, the only exceptions. In prehistoric and historic periods, military installations were scattered through the county.

Variability

Each Cornish installation has a different function and therefore different form.

Safeguarding the Zone

The MoD landscape managers should be informed of the historic importance of the bases and there should be close consultations on decommissioning to ensure the best possible re-use of these important complexes.

ZONE : AIRFIELDS

Introduction: defining/distinguishing attributes

Mainly Second World War military airfields. Usually on or near north coast cliff-tops on fairly flat ground. Some are still used.

Principal historical processes

A few small civilian airfields were established in Cornwall just before World War Two (St. Just and St. Merryn in 1937, Trebelzue in 1939). These were extended and a number of new sites established between 1939 and 1943 to host squadrons working first in coastal defence and shipping protection and later in reconnaissance and bombing missions in north-west France.

Most fields were retained by the military after the War and used for coastal defence or training. Culdrose was wholly built from 1947. Some airfields gradually fell out of use and became bases for civilian flying and gliding clubs. St. Just reverted to commercial operations to Scilly and St. Mawgan split between military and civilian use. Most now have small-scale private uses but a few are still military sites (Culdrose, Predannack, St. Mawgan, Cleave the latter a Combined Signals Organisation Station). Only one or two are now mainly farmland (Treligga, St. Eval, Davidstow, St. Merryn).

First World War airfields have largely been absorbed back into the farming landscape, e.g HMS Bonython near Mullion (airships) and Crugmeer near Padstow.

Typical historical/archaeological components

Most World War Two airfields had tarmac/concrete runways (Cleave, Treligga and St Just were just grass fields) which largely survive, although some are now roads. Most sites also retain aircraft dispersals (circular concrete/tarmac nodes attached to runways) and some or all of the flat-roofed control buildings. Most hangars and nissen huts, however, have been removed. There are, however, many hutted camps in the vicinity of the sites, several now converted to holiday camps.

Airfields are not laid out on virgin ground and historical features such as barrows and other low earthworks survive. At St. Eval, the 15th century parish church stands within the otherwise flat airfield.

Rarity

Hundreds of World War Two Airfields were built; those in Cornwall tend to be relatively well preserved.

Survival
Apart from Treligga, which has been largely dismantled and, to lesser degrees, Cleave and Culdrose, where modern military installations have been superimposed, all Airfields are clearly visible and understandable.

Degree of surviving coherence of the historic landscape components

Most Airfields retain enough features for them to be readily understandable. Treligga is the least coherent with just a control tower and one hut surviving.

Past interaction with other Zones

Airfields were imposed on other Zones, usually UPLAND ROUGH GROUND and RECENTLY ENCLOSED LAND.

Evidence for time-depth

Most field boundaries and any settlements were usually removed (as dangerous obstructions) when Airfields were laid out. Time depth is therefore difficult to appreciate on most sites, although the re-use of the Airfields themselves has often left clearly defined sequences of modern features.

Contribution to the present landscape character

Particularly on the north coast, the Airfields as hedgeless, treeless flatnesses, have considerable impact on the landscape.

Values and perceptions

Easy to denigrate as bleak, ugly places. Most are, however, regarded affectionately by local people with personal experience of them. Vivid reminders of the war against fascism fought by the older generation. Now often used for Sunday afternoon kiteflying and other innocent pleasures.

Research and documentation

Reasonable; special interest groups study airfields and many photographs exist of the fields in use.

Potential for historical/archaeological research

Largely confined to the archaeological study of World War Two defences and, by oral history, their impact on local society.

Potential for amenity and education

Good; most are already used by flying, gliding and micro-light clubs and as informal pleasure grounds. There is some potential for limited presentation of the historical features at some sites.

Condition of historical/archaeological components

Generally good, although the concrete structures and runways are beginning to decay.

Vulnerability of components

There is little direct protection, although some are in designated areas.

Forces for change

Ugliness is their weak spot. Campaigns to improve the appearance of the north coast may threaten Airfields.

Importance
Generally fairly low, although high for amenity value and contribution to landscape character. Representative of an enormously important period in our national history. Importance will increase with time.

**Principal locations**

Most are along the north coast but two are on The Lizard and one is on Davidstow Moor.

**Variability**

Confined mainly to size and numbers of features (runways, dispersals, hangars, barracks etc).

**Safeguarding the Zone**

In general, leave as they are, although certain buildings will soon require consolidation. Research, including archaeological survey of the fields and associated features (eg. Ack-Ack emplacements, barracks etc) will contribute to the understanding and management of this Zone.

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**ZONE: UPLAND WOODS**

**Defining/distinguishing attributes**

Large blocks of woodland, in excess of c. 50 hectares, beyond the crests of steep-sided valleys and creeks (the more typical locations of Cornish woods). Now mainly conifer plantations, although several are on the sites of more ancient woods.

**Principal historical processes**

The upland woods of Cornwall are now nearly all down to conifers (with some deciduous borders) but about half of them were in existence as deciduous or broadleaf woods at the beginning of the 19th century and will probably have medieval or even prehistoric origins. These tend to be found in the agricultural heartland of Cornwall, alongside ANCIENTLY ENCLOSED LAND, places like Swannacott (Week St. Mary), Bedock Wood (Ladock), Bishops Wood (Kenwyn) and Pencarrow/Dunmeer Woods (North of Bodmin).

The woods will have been managed and their products (timber, charcoal, tanning bark, undergrowth, coppice wood etc) sold or exploited from at least medieval times.

Some upland woods are entirely modern and are usually on former Upland Rough Ground. These are 20th century conifer plantations, often established by the Forestry Commission. Most are on Bodmin Moor and the Lizard downlands.

**Typical historical/archaeological components and features**

Conifer plantations are generally simple landscapes; blocks of fir and pines planted in rows of parallel banks created by deep chisel ploughs and separated by fire breaks and access tracks. There are also usually drainage ditches and fences and some have picnic areas.

Remains of pre-conifer features survive, often in fragments, in some woods; earlier wood-banks, tracks, charcoal-burners’ platforms (circular platforms c. 6m diameter terraced into hillsides) etc.

Those woodlands replacing ancient broadleaf woods tend to have less rectilinear edges and therefore are more sympathetically moulded into the local topography.

**Rarity**
Plantations of conifers are now common in Britain, but ancient upland woods are relatively rare.

Survival

Generally complete; the trees themselves are, of course, cropped when mature.

Degree of surviving coherence

Modern plantations will be entirely coherent but the remains of earlier woodland landscapes will usually be fragmented by the imposition of new tracks and firebreaks and the ploughing for the conifer ridges.

Past interaction with other Zones

The ancient woodlands will have been incorporated into rural economies in medieval and early post-medieval periods and will thus have had direct relationships with neighbouring Zones, notably ANCIENTLY ENCLODED LAND.

Modern conifer plantations, on the other hand, produce wood for the national economy and are not managed or exploited by local communities. The plantations are also imposed onto other Zones which are generally more important, in particular UPLAND ROUGH GROUND (URG).

Evidence for time-depth

Fragments of earlier woodland features can be identified in the re-used ancient woodlands and in some modern conifer plantations in previously URG, Scheduled Monuments are left as unwooded islands in a sea of dark trees (e.g. at Trewortha Marsh and Smallacombe). Boundaries of earlier field systems can often be detected, in damaged form, within woods as can the more substantial remains of industrial features, e.g. explosives works in Bishop’s Wood. In general, however, there is little visible evidence of time-depth in a conifer plantation.

Contribution to the present landscape character

Substantial, being both dark (almost black) and prominent. The great 20th century plantations on rounded hill-tops catch the eye in preference to more muted, subtle and interesting features, in their vicinity.

Values and perceptions

Little loved. Looming presences which most people know have obliterated more beautiful, more ecologically varied and more historically important blocks of the landscape. Some have public access and are appreciated by those who visit.

Research and documentation

The more ancient woods have received surprisingly little attention from both historians and archaeologists. Modern plantations have received none at all.

Potential for historical/archaeological research

The ancient woods, as noted above, were important parts of the rural economy and their study will throw light on medieval and early post-medieval Cornwall. Archaeological features will survive in most and their recording and interpretation will also be valuable.

Potential for amenity and education

More potential for amenity than education, although detailed historical and archaeological studies of woods like Swanacott or Bishops Wood (Kewnyn) will be of value for education as children can safely explore the past and present in strange and exciting places.
Condition of historical/archaeological components

Most early features associated with ancient broad-leafed woods will have been fragmented by modern re-use.

Vulnerability of components

Most woodlands receive no direct protection, although most of the less important modern upland conifer plantations are within designated areas, notably the AONB.

Forces for change

Continued conifer management (thinning, cropping, reploughing etc) will gradually erode the surviving features of ancient woods.

A more fundamental problem is the establishment of new upland woodlands on historically more important Zones. Biomass power generation may also present such a problem with new short-rotation coppices being established.

Importance

Of importance in terms of contribution to the present landscape character and amenity value. Overall, however, its historical value is now quite low, owing to the transformation from broad-leaf to conifers.

Principal locations

Ancient upland woods tend to be just beyond the crests of valley sides (e.g. Swannacott, Bishops Wood, Hustyn Wood, Calliwith Wood) and are all east of Truro. Modern conifer plantations are on more marginal land. Most are on Bodmin Moor (Pridacoombe, Halvana, Smallacoombe, Butterstor, Roughtor) but there are others on the Lizard, on Wilsey Down and in the far north on the Morwenstow Downs.

Variability

Limited in landscape terms. Ancient woods are usually distinguishable by their more irregular and rounded edges and their slightly more sheltered locations.

Safeguarding the Zone

Contain the spread of conifer plantations on historically more important Zones, in particular Upland Rough Ground and Anciently Enclosed Land. Introduce more variety, via broadleaf trees, especially in the more ancient woods. Enhance public enjoyment of woods to which the public has access by undertaking historical/archaeological research and installing discreet interpretation boards.

ZONE: RESERVOIRS

Defining/distinguishing attributes

Twentieth century waterbodies retained by built dams. On uplands or in steep valleys.

Principal historical processes

Built mainly in the second half of the 20th century as sources of water for local population centres. Public amenities; generally obtained land by compulsory purchase. The reservoirs are very important as the most visible component of a major engineering feat of the 20th century, reflecting the sophistication, complexity and stability of a society that could bring piped water to virtually every household.

Typical historical/archaeological components and features
Often inundate important archaeological features (e.g. Colliford Lake flooded important medieval tin works and settlements). Cornish dams are generally functional in design. Pumping stations, water treatment works etc are usually associated with the reservoirs.

*Rarity*

Common; found throughout Britain.

*Survival*

Reservoirs themselves are, of course, carefully maintained and survive well. The features they inundate do not.

*Degree of surviving coherence of the historic landscape components*

The reservoirs and their ancillary features are fully coherent complexes but the waterbodies have a severely dislocating influence on the historic character of the landscape in which they are set.

*Past interaction with other Zones*

Help sustain inhabitants of URBAN DEVELOPMENT and ENCLOSED LAND. Imposed on other Zones, mainly UPLAND ROUGH GROUND, STEEP-SIDED VALLEYS and RECENTLY ENCLOSED LAND.

*Evidence for time-depth*

Limited except where historical features, notably field boundaries, can be seen running into the water. Low water levels in dry periods may reveal features usually lost from view, and wave action at the edges can expose artefact scatters and other previously buried features (e.g. Bronze Age cup-marked stones at Stithians Reservoir, Mesolithic flint scatters at Siblyback).

*Contribution to the present landscape character*

Reservoirs are dominating features.

*Values and perceptions*

Highly valued by local populations who use them for leisure activities; often resented when first built by those who see them as destroying historical or beautiful landscapes.

*Research and documentation*

As 20th century public utilities, there will be considerable design and planning documentation.

*Potential for historical/archaeological research*

Historical research may throw light on the methods of selection of sites and campaigns for resistance to the reservoirs. Archaeological information can be gleaned from the shorelines and, with more sophisticated planning constraints, there will be greater opportunities to undertake detailed recording in advance of any future reservoirs (as in the Roadford Reservoir project in Devon).

*Potential for amenity and education*

Although not directly related to the historical landscape, the amenity potential of reservoirs is great, not only for fishing and water sports but also as wildlife havens. The presentation of material recorded in advance of reservoir construction offers considerable potential (again, see Roadford Reservoir project).

*Condition of historical/archaeological components*
The reservoirs and ancillary features will be in good condition, being maintained, but other historical features will generally be in poor condition.

**Vulnerability of components**
Reservoirs and components are stable.

**Forces for change**
None for extant reservoirs. The construction of dams and reservoirs is itself a major force for change in other Zones.

**Importance**
Most important as an amenity and as a dramatic contributor to landscape character. Otherwise, tend to sterilise and interrupt historic landscape character.

**Principal locations**
Where construction is feasible and viable and where public opinion allows. Tend to be in Uplands, Steep Valleys and low-grade agricultural land. Bodmin Moor contains three major reservoirs (Colliford Lake, Siblyback and Croyd) and there are other substantial ones at Stithians, Drift and Argall. There are also many smaller, usually early 20th century reservoirs near towns, not all of which, because of size, become part of this Zone.

**Variability**
Depends on size of dam, size of reservoir, materials used in the dam and the location and therefore fringes of the waterbody.

**Safeguarding the Zone**
There is little to recommend for extant reservoirs. For projected reservoirs, detailed consultation with archaeological bodies is required, firstly in the consideration of location, to minimise damage to the historical landscape (using the information provided on all other Zones as a guide) and, secondly, in organising an adequate programme of rescue recording of historical/archaeological components prior to inundation. Conservation of the existing water resource will be a less damaging policy than building more reservoirs.

**ZONE: INTER-TIDAL ZONE AND INSHORE WATERS**

**Defining/distinguishing attributes**
The ground between high and low water marks on the seashore and in tidal estuaries. Although now essentially sand, silt or rock, this Zone can contain important archaeological remains either at surface (e.g. quays, breakwaters) or buried (e.g. old land surfaces, overwhelmed quays). Inshore waters, to the 12 mile national limit, should also be included as there are important permanently submerged archaeological features here; not just wrecks but also submerged forests etc.

**Principal historical processes**
Most human activities which have left remains in this Zone were connected with maritime affairs but there will also be prehistoric remains from periods as late as the Bronze Age when land that is now inter-tidal was dry ground. So, from Mounts Bay and at least 20 other portions of the coast, there will be remains of ‘submerged forests’ and, potentially at least, the remains left by people who lived and worked in these forests. (The Isles of Scilly contain numerous examples of now submerged field systems and settlements and Bronze Age hand-querns have been picked up by divers from Mounts Bay.)
Industrial remains can survive in this Zone too; some mines had shafts sunk in inter-tidal waters (Wherrytown at Penzance, Devoran Creek). More significant, though less concrete, are the vast deposits of muddy silt brought down from inland tin streamworks and dropped in the inter-tidal zone.

**Typical historical/archaeological components and features**

Buried prehistoric land surfaces will contain palaeo-environmental evidence (macro- and micro-fossils, pollen etc), as well as human artefacts. Palaeo-environmental evidence can relate to an area’s vegetational history or to the processes of submergence and coastal or estuarine change. Detailed investigation may well reveal features like boundaries or settlements.

Most features, of course, will relate to the use of the coasts and estuaries for fishing and shipping. Some will still be used (quays, piers etc) but many will be either abandoned or ruined, visible only as low footings of walls or lines of rotting timbers. Piers, jetties, sea-defences and breakwaters are the more substantial of these. Wrecks or hulls of ships and boats survive on rocky headlands and in the backwaters of estuaries, as well as fully submerged in inshore waters; several thousand are thought to exist off the coast of Cornwall.

Industrial remains include partly submerged shafts and the footings of jetties serving them. In estuaries, there are several tidal mills with large embanked pools and some structural remains of the mill houses whose large undershot waterwheels exploited the power of the gradually released tidal waters.

**Rarity**

These remains will, of course, be confined to coastal counties. Cornwall has a very rich maritime history and can be expected to possess amongst its inter-tidal feature examples which are unusual or rare. Tidal mills are nationally rare as are inter-tidal mines and inter-tidal tin streamworks.

**Survival**

Most features are both attacked by and protected by the sea. Layers of sand, shingle and mud cover and guard features and the likelihood of damage by modern human activity is reduced by the disincentive to development that is a raging Cornish sea storm. Storms can, of course, cause physical damage themselves. Some organic remains and deposits can be preserved very well if permanently waterlogged (e.g. timber boats).

**Degree of surviving coherence**

Feature are usually unrelated to each other, except in some cases where one replaces another (e.g. successive lines of sea defences). Submerged terrestrial remains are often coherent and separated fragments can be related to each other - e.g. Mesolithic levels at various points around the Cornish coast.

**Past interaction with other Zones**

There will, of course, have been close ties at all periods with other coastal Zones, notably NAVIGABLE RIVERS AND CREEKS and those towns established on the coast. The inter-tidal zone was the interface between people and the sea and activities involved either exploiting the sea by fishing, shipping etc or protecting other features from it.

Tidal mills were normally used for grinding grain and there will have been relationships with ANCIENTLY and RECENTLY ENCLOSED LAND and the NAVIGABLE RIVERS AND CREEKS in which the mills are set.
Buried land surfaces will be prehistoric; if agricultural land, the Zone affected will be AEL.

Evidence for time-depth

Sequences of features are often detectable in busy parts of this Zone; lines of posts cut by ruined walls and the standing structures that made them redundant. Often, however, features will be relatively isolated and difficult to relate to others of different periods.

Contribution to the present landscape character

Harbours, piers and quays can make some impact on coastal scenes; the most prominent being the large docks complex at Falmouth. The muddy silt found in most Cornish estuaries, the product of upstream tinning, has significantly altered the appearance of most rias. Generally, however, the remains of disused features are ephemeral and make a minimal contribution to the present landscape.

Values and perceptions

Fine granite stonework in medieval quays and chain and rope-worn bollards make harbours well loved by local people and visitors. Although many are now used by pleasure boats and just a few crabbers, people can easily imagine ranks of large sailing boats moored to the piers and quays at ports like Penzance and Porthleven and fleets of brown-sailed fishing boats filing out of St. Ives and Coverack. Some fishing villages still have thriving trawling industries, most notably Newlyn, East Looe and Mevagissey and this Zone will have a much more immediate value for local communities here.

The ruined remains of quays and breakwaters, and the existence of buried land surfaces, will not normally be known about but the rotting hulks of wooden boats near Rock, Polruan and Lelant will be eerie landmarks for many.

Research and documentation

This is another under-researched aspect of Cornish history. Document-based histories of Cornish ports and harbours have appeared and there is some good and imaginative work on coastal wrecks but little work has been done on the physical remains of harbours etc and even less on the submerged forests and buried coastal soils of Cornwall. Tidal mills have not received the close study they appear to deserve and even the processes and dating of the silting-up of estuaries by tin-streamers’ waste has not been fully studied. The Royal Commission on Historic Monuments in England is compiling a list of wrecks (over 4,000 in Cornwall and Scilly) and some are being mapped from aerial photographs in the National Mapping Programme.

Potential for historical/archaeological research

There is much that can be learnt from the study of Cornish harbours, both extant and ruined. Knowledge of levels of investment into structures, together with their capacity, mode of use etc can inform the histories of maritime Cornwall, itself an area of the county’s history which has seen too little work.

The potential for understanding prehistoric Cornwall, from Mesolithic to Bronze Age times and, in particular, its climate and environment, from the careful study of submerged forests and buried soils is considerable. Research on tin-streamers’ silts has been initiated and results will shed light on the history and even prehistory of tin extraction in Cornwall’s valleys.

Potential for amenity and education

Harbours are appreciated by visitors to seaside towns and by locals who, as noted under Values and Perceptions, can vividly imagine scenes from the recent past. Many quays are
still used. The potential for using visits to harbours to illustrate local history courses in schools and in further education is as great as the potential they have to inspire historians and writers.

*Condition of historical/archaeological components*

Generally good; most extant harbour walls are in use and thus maintained. Ruined features are gradually decaying or being eroded by the sea but human damage is minimal.

*Vulnerability of components*

Many extant structures are protected as Listed Buildings and others fall within Conservation Areas. Features in coastal waters are generally protected from development by the elemental power of a fierce storm. Much of Cornwall’s coastline is an AONB and this also provides shelter for the inter-tidal zone from damaging development.

*Forces for change*

There will continue to be gradual erosion by the sea. Human forces for change include the construction of sewerage schemes and coastal defences. As well as the construction itself the movement of water and sediments can damage historical and archaeological remains. Marine aggregate extraction and the dredging of silts in estuaries can also be very damaging as can treasure-hunting and some forms of fishing.

*Importance*

This Zone’s importance lies in its research and amenity potential and in its high value for local people.

*Principal locations*

The whole of the coastline and all tidal estuaries will have an inter-tidal zone but much of this is archaeologically featureless rocky foreshore. Most features are concentrated in coves, sandy bays and the upper reaches of navigable rivers and the mouths of estuaries.

*Variability*

The features encountered in the Zone do not vary significantly within the county.

*Safeguarding the Zone*

The potential existence of buried features along foreshores should be considered when dealing with proposed developments. The good maintenance of extant features should be encouraged and if they are protected statutory constraints should be enforced. More research into this Zone is required and good management will be made easier through the production and implementation of integrated management plans (in preparation for the Tamar and Fal). Both natural and historical interests should be fully considered. As well as protecting vulnerable but important remains, these plans should aim to improve the interpretation of this Zone and thus increase public enjoyment of it.