



# UNUSUAL OLD FEATURES IN CORNISH HEDGES

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*Springs, spouts, peeths, & holy wells / milk & water / pigs' crows, bee-boles & hulls / sheep-creeps, hare-holes & bolts / rounds & pounds / mine-shafts / querns, cups quoits & menhirs / stone rows / Celtic crosses / ogham script / deer-parks / dew-ponds / mill-leats / canals / tide-mills / sea walls & quays / hedges in war.*

The Cornish countryside is rich in man-made features, giving much pleasure to those who notice them, perhaps casually in passing, or in having a special interest. This paper describes many different and unrelated landscape artefacts which have some association with hedges. Most of the historic features contained in the hedges were crafted in the same local stone. Others are formed by the hedges themselves when built for a special purpose. Those not included here, eg woodland, roads, footpaths and stiles, are described in other papers on this website.

## SPRINGS, SPOUTS, PEETHS AND HOLY WELLS.

The first essential of life is water. Prehistoric dwellings were always sited near a spring, and later villages and towns grew up by streams and rivers, often making the houses damp to live in. The stream or spring came first, then the dwellings and the paths and tracks between them, usually coinciding with the water source or passing it closely on the way. It had to be accessible to the thirsty human and animal traffic along the roads or working on the land. Hence the number of springs,



*A handsome Cornish hedge around a spout.*

wells and streams close alongside the winding country lanes. After the water sources and the hamlets and the paths came the hedges bounding fields and highways, so the springs and streamlets were built into the hedges that crossed them. Often boundary hedges criss-cross a stream in a zigzag way so as to provide water for farm livestock on each side.

Many springs were handsomely enclosed with dressed stone as dipping wells, with a stone or slate trough to catch the water as it was led through the hedge. Quite small springs with no pipe might have a little trough hollowed out of granite at the foot of the hedge where people or animals could drink.



*Entrance to a peeth underneath a Cornish hedge.*

The larger wells would have the hedge built around in a semi-circle to allow the user to step off the highway and fill a leather bucket or earthenware pitcher at the brink; in fact, it was probably at this stage, when the hedges were built, that the dipping-place on many a stream was improved to form an enclosed well.

Later, many of these larger village water supplies had a large iron pipe set, as a spout through the hedge, out of which the water poured constantly into the basin below. Some were fairly rudimentary, overhung with weeds, others, usually those near a 'big house' or part of its estate, fine examples of the use of native stone, mossy and

picturesque, while many were unfortunately 'concreted' during the 20<sup>th</sup> century. All were once the meeting-place of the village women where they went to fetch water, stream their washing, and gossip with their neighbours.

The deeper springs and wells were built around with stone retaining walls and roofed over with stone, sometimes slabs but often finely arched, and with stone steps descending to the water level inside. This walk-in type of well is called a 'peeth'. Sometimes the peeth was incorporated with the boundary hedge around the property, or itself hedged around to keep it safe from livestock pollution.

Holy wells abounded in Cornwall, and have been associated with pagan religions. In fact the early pre-Roman church made good use of the wells with the Celtic priest using these natural gathering places to promote the early Christian Church. Christianity was brought to Britain first from Ireland and later by the Romans. The Celtic form was based, to a large extent, on individual 'saints' who worked within small local areas, often living by a local well or spring which had associated pagan beliefs. Although it is usually said that they lived on local charity, many of them will have had a craft skill that was in local demand. The holy wells in Cornwall were numerous; the greater part being formerly enclosed in small baptisteries. The remains of many of these are still extant, mainly because of the religious belief that to remove stones of the ruins would be fatal to the removers and to their children. For many centuries this superstition effectively prevented stone being taken for building hedges.

Later on, mainly after the Norman invasion, the churches were built, nearly always close to the village water source. A good example of a holy well is at Sancreed, with the remains of a Celtic Christian chapel alongside. The chapel at St. Agnes's Well existed until about 1820, after being drained by the mine workings, when its stone was carried to build a hedge, the hedger reported as saying "What's the good of a well without water?"

Much of the evidence of the old sources of good water has disappeared following the laying-on of mains water after World War II. The deep wells have had their hand-cranked pumps removed, the peeths have been demolished, filled in and concreted over, and the spouts have been piped tidily underground. Although some of the water might not have been up to today's hygienic standards, much of it is



*A spout built in the higher hedgebank catches the water of a spring running into the main stream. The square opening in the side was built to put a cloam pitcher in to fill under the internal pipe, giving a controlled supply even in times of heavy rain when the overflow, seen running in the picture, is gushing too fast for easy filling*

wholesome and naturally free of chlorine. Typically, one farmer was told that his well-water was not fit even for the animals to drink; his dry response was, "Tell Feyther that. He's drank that water all his life, he's ninety-seven and never had a day's illness." With the safeguard of laboratory testing, local initiatives could bring back tasty water to many villages, with people going to the well instead of to the supermarket for their bottled drinking water.

## MILK AND WATER.



*A neat little concrete drinking trough not so neatly set into a hedge.*

Cornwall has always been pre-eminent in livestock farming, and this has shaped the hedges and their artefacts. The skilled farmers organised their grazing by moving the cattle frequently from one of the small-sized fields to another, so as to maintain the supply of fresh grass. This created the need for a water supply to each field, and hence the many drinking troughs of various types set into Cornish hedges and accessible from the field to either side of the hedge. Some still remain that are magnificently-carved out of a single block of granite, most are of concrete, galvanised iron or plastic. The water was brought to them usually by a

hydraulic ram pump set in a nearby stream, or pumped up from below ground by a wind-pump. These, with their 'daisy wheel' of curved galvanised vanes, were once a common and familiar sight in Cornish fields. Sometimes, if sited in a valley, the scaffold for the wind pump was erected on the top of a Cornish hedge to raise it up and help to catch the wind.

The end product of this good grass and water, the milk from the dairy herds that were the pride of Cornish farming, during the 20<sup>th</sup> century was collected from the farm by lorry, giving rise to the ubiquitous churn stand like an altar built into the hedge at the farm gate. Like the troughs these were of many varieties, from the big moorland boulder or slate slab to the modern neatly-built breeze-block version. Many were built as an extension to the hedge, and in the same style of construction. With the coming of bulk milk tankers these fell into disuse, but many remain as a silent reminder of the hundreds of small milking herds, usually Guernseys, that were traditional to the Cornish economy.



*Churn stand built on adapted section of Cornish hedge which could still be used to off-load fertiliser etc into the field.*

## PIGS' CROWS, BEE-BOLES AND HULLS.

In those parts of Cornwall with plenty of stone the Cornish hedges, as well as stone hedges with a core of stones taken from the fields alongside, may be massively built. Sometimes advantage was taken to build something useful into the hedge. This might have been a pigs' *crow*, or sty, built



*Pig's creep built into a stone hedge. (The bars have been added since the creep was disused, to dissuade people from entering.)*

within the thickness of the hedge to shelter pigs running free in the field. The pictured one is in West Penwith, another not far away is built into a hedge alongside the road at Rosemergy, Zennor.

Bee-boles were also stone-lined cavities built into hedges, usually around the homestead and on a south-facing hedgeside, to house bee hives. These were straw skeps and the shelter of the cavity kept the worst of the weather off. Setting them into the side of the hedge was said to help deter vermin from robbing the hive. Similar cavities are reputed to have been made for hens to nest in relative safety. Others, more recent, were made in the

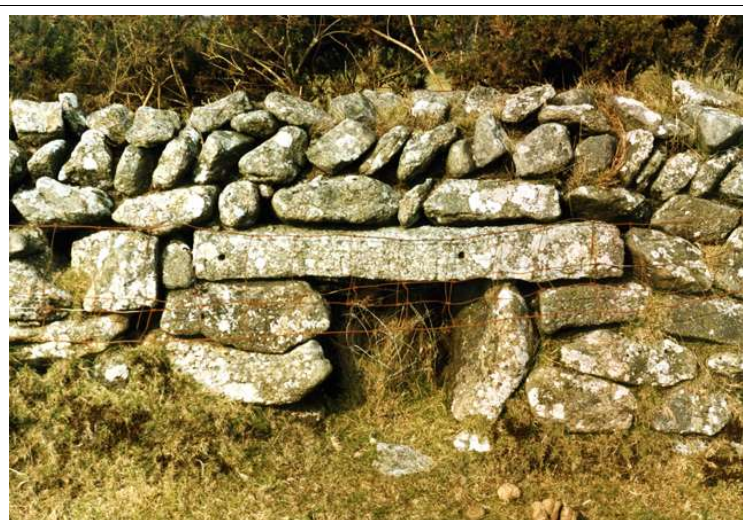
hedge beside the entrance-gate to houses set back from the road, to make a cool place for the local milkman to leave the bottles of milk he delivered.

A much larger hole made the larder known as a 'hull', or butter-well. The hull (from *huth* = cover or shade, and not dialect for hole) was a stone-lined cavity built in a hedge beside the farmhouse, in which containers of milk, butter, cream &c were put to keep cool out of the heat of the sun. The opening would be made low down in the shady side of the hedge with a lintel-stone across the top of the aperture, which was closed with a slab of stone or slate. Often the floor of the cavity was sunk below ground level. This gave almost the coolness of a cellar, as the bulk of the hedge on top acted as insulation. As with the housing built over the peeth, the sides and top of the cavity forming the hull would usually be skilfully lined with stone, arching over for strength.

### SHEEP - CREEPS , HARE – HOLES AND BOLTS.

In moorland districts, some stone hedges have a hole about the size to let a dog go through (16" x 20"), often seeming to serve no useful purpose. This is a sheep-creep, and will have been built into the hedge to help with the traditional grazing of the fields. The typical moorland farmer, until about 90 years ago, kept North Devon cows and Devon Longwool sheep and the holes were to allow lambs to get into the next field so that they had the best of the new grass.

Nichols wrote for the Old Cornwall Society's Journal of 'holes running through the walls surrounding game parks, about eighteen inches from the ground and carefully shored up. The old men knew them as "Rabbit Boxes" - rabbits, which served the purpose of keeping undergrowth in check, could thus pass to and fro while the game remained in the park. The boxes were also the waller's means of trapping himself a rabbit without finding a game bird in his gin.' The hedges to be built in the enclosure of Viverdon Down, Callington, in 1894 had to include, at intervals of 50 yards, a hole through the base of the hedge. This was



*Sheep-creep on Bodmin Moor. Note the two holes drilled into the lintel showing it had been destined for some other purpose before being built into the hedge - probably a redundant gatepost.*

to be properly built in with stone so as to allow hares use it. The exact purpose for these holes is not stated but it has been presumed that the hares were coursed by greyhounds and the holes allowed the hares a better chance of escaping than if they had to get over the top of the hedge. Another reason may have been the similar thought that hares would better evade foxes. Probably both accounts related to holes for hares, which locals also made use of to catch rabbits by blocking up one end. There is mention of a similar hole giving access to the artificial rabbit warren on Godolphin Hill, but again its purpose is uncertain but has been attributed vaguely to vermin control.

Another type of hole through the bottom of Cornish hedges has been reported at Baldhu when rough land was enclosed by new hedges about a hundred years ago. The land was criss-crossed by badgers' tracks, so bolts were made in the new hedges where they coincided with the tracks because, without these, the badgers would have made their tracks up and over the hedge, perhaps making future weak spots allowing livestock to escape. Well-built Cornish hedges, however, display many narrow worn paths of fox and badger running vertically up the side of the hedge, which seem not to cause any problems unless people start using them as a place to scramble over the hedge.

A stone culvert built through the foot of a hedge is called a bolt, put there to allow a small stream, perhaps dry in summer, to run through where the hedge is built across it. There are hundreds of these bolts in Cornwall, sometimes associated with a stone-lined launder (gutter) to carry the ditch-water, and many are very ancient. On the other hand drainage holes about six inches square through the foot of a Cornish hedge are likely to be a modern innovation. Given the poor, weak construction of many new Cornish hedges the idea is to prevent the pressure of flood water pushing the hedge down. This somewhat defeats one important purpose of the Cornish hedge which prevents run-off, the solid bulk of the well-built hedgebank easily holding back the water until it sinks harmlessly into the ground.

## ROUNDS AND POUNDS.

Maps sometimes display the word 'round'. This signifies a small piece of ground with a circular boundary around part or all of it. This was a fortified cluster of dwellings dating roughly during the late Stone Age, about 3000-1000BC for example Trevarnon Round (Gwithian). Another



*Trewern Round, its circular hedge seen in the centre of the view.*

description for a circular site might be 'fort' which describes a similar settlement dating from the Iron Age up to the coming of the English in about 600AD, for example Castle an Dinas (Goss Moor). Other historic settlement remains may be shown on the map as 'earthworks' or 'settlement'. Usually the only obvious remains are of defensive walls which in time have become field hedges sometimes with a shallow ditch.

A 'pound' was where straying farm animals were impounded, the earliest probably date from the Bronze Age (2000BC) but most of them are no more than 1500 years old, when some of the prehistoric hamlets started to

become villages and many of the ancient commons were made into large 'open-fields'. Although most of them were hedged the banks were often quite low, and livestock was inadequately-tethered or roamed loose on the common land. Animals that were found straying on to someone else's land were driven into the village pound (about the size of a tennis court) from which the owner could only retrieve them by paying a fine, usually to the local landowner and not to the occupier of the land

strayed upon. About fifty of these pounds, or the remains of them, have been found in Cornwall and about another hundred may have been located at places where the word "pound" is hinted at by the name of the place. (Further details are available from the County Council's history department.)

The assumption that each parish would have had only one stock-pound is wrong. There were four pounds in Mawgan-in-Pydar parish; one at Lanherne for the Arundel estate, a second on the Carnanton estate, and a third at Denzil, besides the village pound at Mawgan which was eventually incorporated into the local smithy. The village pound for Crantock was at Treago Farm, quite a distance from the ancient village and to the west of the open-field system, some hedges of which lie each side of, and parallel with, the Crantock - Cubert road at Carnmerry and Trevowah. Very often one or two hedges or walls of a pound may be found preserved as part of a field or garden hedge, standing unrecognised.

The custom of the Manor of Bodardle, of the Arundel estate, was that 'the lords time out of memory may have had stray goods'; in other words the lord got, by tradition, all stray stock. The pound at Stratton, measuring 6.1m x 7.3m (20ft x 24ft), was still in use in 1826 when the 2.7m (9ft) high walls were rebuilt. The hedges around a pound had to be especially stock-proof in order to keep in livestock which had strayed from home and were often built more as walls than hedges. The small enclosed garden plot often detached from the farmhouse or cottage, though securely-hedged should not be mistaken for a pound.

Both rounds and pounds in Cornwall are worthy of surveying and recording in photographs.

## MINESHAFTS.

Beware of investigating small circular hedges which look intriguing in the landscape. These are not 'rounds', they are enclosing old disused mineshafts, usually the bigger, deeper ones. The Cornish hedge was built as a collar around the mouth of the shaft to warn of its presence and to prevent animals and people accidentally falling in. Usually the shaft was capped first, or the mouth has fallen in and blocked itself as time has gone by, but this does not mean it is safe to get down inside the hedge. The capping was often inadequately-done, maybe using timber which has since rotted beneath a thin topping of earth and brambly growth. Many shafts in Cornwall are very dangerous, perhaps half a mile deep, usually water-filled at the bottom, and must be treated with total respect. The Cornish hedge that rings the shaft is a signal to keep well clear. With a big shaft in bad ground the hedge itself can slip as the mouth 'bells' in a circular landslip. Don't be the person who sets it off, as you are liable to go with it and may never be seen again.



*Cornish hedge around mine-shaft.*

## QUERNS, CUPS, QUOITS AND MENHIRS.

Ancient stone items have been built into many Cornish hedges, usually unknowingly, but occasionally deliberately either to conceal them, in order to avoid a fuss, or to display them. The

latter usually indicates a recent hedge; the stone trough or grindstone is no longer seen as an item for daily use but as an interesting 'bygone' to be handily preserved and shown off by incorporation into the new hedge around the 'barn conversion'. Unfortunately, setting such an item on its edge in the hedge's face is likely to weaken the structure. In the past such items, usually broken, would be used as an ordinary piece of stone during the building of the hedge, and are indistinguishable to outward view.

Prehistoric artefacts such as querns, the hollowed-out saddle-shaped stones on which grain was ground by hand, cup-stones, loom-weights and hand-axes or other stone tools have been found in Cornish hedges, perhaps by a sharp-eyed antiquarian, more usually when the hedge has been demolished, repaired or re-built. These will most likely have been ploughed out of the field and added unrecognised to the pile of clearance stone for building hedges. The great flat boulders once used to cap 'quoits' or burial chambers, or for lintels of wells, courtyard houses or fogous, also turn up in hedges, set up on edge as part of a 'tombstone' type of hedge, or simply laid on top of the hedge or leaned against it as they have been cleared from the field in the past. West of Millpool on the old Marazion road is said to be a stone in the hedge bearing the impress of the devil's knees. The story is that one day, feeling uncomfortably lonely, His Wickedness decided to pray to be changed. He knelt down on a slab of granite, but his knees burned into the stone. Thinking that praying seemed a most painful procedure, probably causing rheumatism, he leapt up and resolved never to do so again, leaving the hollows made by his knees in the stone. The holes are probably of prehistoric origin, very similar to the cups hollowed out of stones associated with ancient monuments.

The long 'menhir' or standing stone may be found in many a Cornish hedge, incorporated into the hedge after being removed from the field, sometimes now masquerading as a gatepost or perhaps used to raise a stile and make it more stockproof. The original reason for the menhirs has been lost to history. Many theories are held, with the favourite being 'for ritual purposes'. Stone posts in fields may be ancient menhirs left there as rubbing-posts for cattle, to attract them away from the hedges which they would otherwise damage by scratching their itches against them. Most of these rubbing posts, including perhaps menhirs retained for this purpose where they stood, have unfortunately now been removed to facilitate the use of machinery in modern agriculture.



*Granite rubbing post for cattle, perhaps once a menhir. Well-worn ground around it shows how much wear and tear it saves the hedges.*

## STONE ROWS

In Cornwall, eight stone rows have been identified varying in length from 59m to 560m, seven of them on Bodmin Moor. They are similar, although generally longer, to those on Dartmoor and their original purpose has been forgotten. Although similar to derelict hedges, they must not be mistaken for them; for instance the prehistoric stone row (22 stones) on East Moor (grid ref 223/777) is close to a row of stones which indicated a mediaeval manorial boundary. Visitors to Leskernick Hill can see, on the east side of the prehistoric hamlet, a stone row that is 317m long, but the height of the stones averages only 0.2m (8") and is easily covered by growing vegetation. The tallest stones, 1.6m are in a stone row of 9 stones 107m long at Nine Maidens (grid ref 936/675), not actually on Bodmin Moor. These are a short distance from the main St Columb-Wadebridge road (A39) and have a



*This is a tombstone hedge, not a stone row.*

public footpath leading to them.

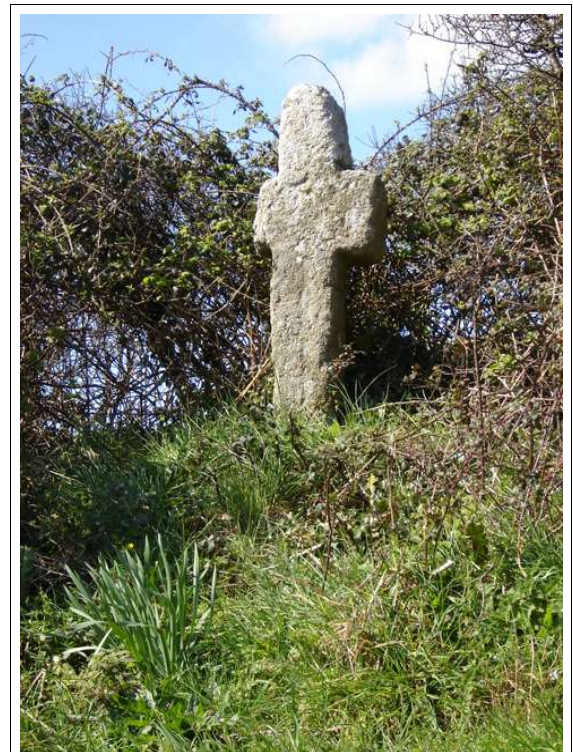
It is easy for swing-shovel drivers to set up modern rows of large boulders but these can be distinguished from a prehistoric stone row by their distribution of lichens and fungi. Prehistoric stone rows should not be confused with mediæval (or modern) parish, commons or mining boundary stones which abound in Cornwall, for example over 100 being on Blisland Common. On the other hand, gurgoes (pronounced gurjeys) are ancient hedges and should not be thought of as stone rows because their function, as a field boundary, is not the

same. Nor should tombstone hedges, a row of boulders, often very large, set up on edge or on end to make a field boundary, be confused with stone rows.

### CELTIC CROSSES.

There are over six hundred stone crosses and fragments known to survive in Cornwall, ranging from pre-Conquest through to the elaborately carved Gothic lantern crosses erected in the 13th and 14th centuries prior to the Reformation. The earliest are where a prehistoric standing stone, already 3000 years old, was then carved into a cross during mediæval times,. Probably the first purpose-built inscribed cross dates back to about the 6<sup>th</sup> century. It seems likely that there may well be over a thousand crosses and inscribed stones in Cornwall, with most of the remainder being hidden in hedges, especially some of those roadside hedges adjoining mediæval cross-roads. A few are still in their original position, others were moved into churchyards, mostly by the Victorians, for their preservation. Some were wayside crosses set up as a guide post to mark ancient paths and tracks to and from parish churches or to other important ecclesiastical sites, such as ancient chapels, holy wells and baptisteries. Many mark the boundary limits of the glebe, parish, monastic land or holy sanctuary and are still to be seen on or against hedges. There are several routes across Bodmin Moor marked by stone crosses, four marking the main A30 route. At Tremoor Cross, Lanivet, is a cross occupying an unusual position. There is an opening in the hedge, the sides of which are built up and form an outlet for a winter spring of water from the field beyond. Across this space, and about midway up the hedge, is placed the cross (3ft 4in high), the base spanning the opening and resting on the sides.

The areas claimed by each Celtic evangelist priest, now given the title 'saint', was sometimes marked by stones around their boundaries, which would have included any existing menhirs. These tall standing



*Wayside stone cross on top of a Cornish hedge.*

stones may have already had a pagan following and some authorities suggest that, rather than wait for everyone to come to him, a saint would go on a circuit, aggressively preaching at the menhirs. If there was no suitable stone there, he would put one up. Probably the function of the stones were as preaching places for both pagan and Christian needs. These stones would have kept their pagan and Christian sanctity for centuries, and were moved around Cornwall to suit the current religious whims. Many a menhir or standing stone was Christianised by being carved into a cross. New crosses were used for marking the bounds of the first churches. Others were erected as waymarks along church paths. Most of them have been removed from their original sites, and many of them are still hidden in hedges. Stone posts in fields and hedges may, on inspection, be found to be stone crosses, others may be untouched menhirs, and some may just have been rubbing-posts for cattle.

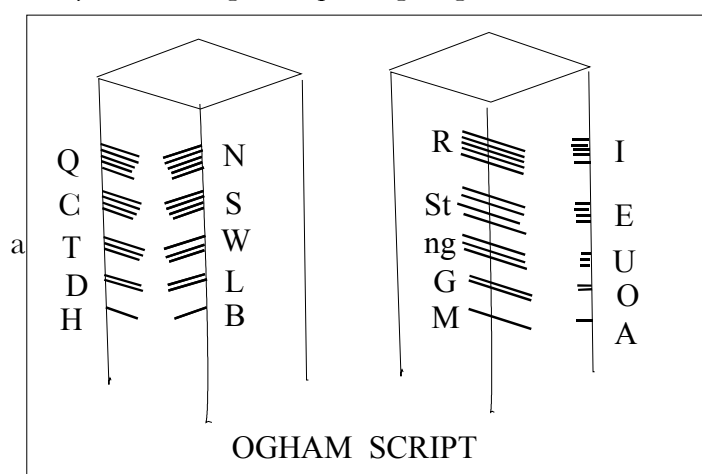
During the last decade the Cornish wayside cross has been under constant threat, due to the growing pressures on the local environment such as road-widening schemes and the encroachment of housing developments in rural areas. Rumour has it that some contractors, when finding a cross, have been known put it back quickly in the hole and cover it up lest 'the authorities' hear of it and stop them working. Changes in agricultural policy have also given rise to many finds of crosses. The removal of ancient hedges, due to running several small fields into one large unit, has been a classic example of farming practise that has resulted in some discoveries, but more may have been hastily reburied. Another example is the widening of field entrances to enable larger farm machinery access to fields, necessitating the removal of gateposts. In some instances these have been found to be wayside crosses buried upside down in the ground, used ignominiously head-downwards as gateposts. An occasional modern threat is damage to ancient roadside hedges and artefacts by collision from speeding traffic.

Recommended reading are the books and pamphlets by Andrew Langdon in his lifelong study of Cornish crosses and who has been responsible for saving many crosses from obscurity or destruction.

## OGHAM SCRIPT

Ogham was a simple way of carving on stone letters of the alphabet and probably originated in Ireland. It was in common use from around 300 - 600AD. Some of the recording is believed to have been on wood and bark, of which none survives. There are several Ogham-inscribed stone monuments, mainly in East Cornwall, made in the 6th and 7thC. They have been identified because the ordinary letters have also been carved on the stones. The two inscribed stones at Lewannick Church, close to the A30 east of Bodmin moor have writing in Latin and in ogham script. This is in memory of Ingenuus, who was likely to have been a pagan priest at about 500AD.

Ogham script is the combination of long and short grooves, on each side of the vertical corner, each combination representing a letter of the alphabet. At a glance these look a bit like the grooves left by the drilling and splitting of granite, but the difference is easy to spot because the ogham script is carved, not drilled. The short grooves appear as notches.



The inscribed stones which combine ogham script with ordinary letters are easy to identify when discovered, but stones may exist with only Ogham script. These would be easy to overlook in hedge or as a gatepost, but the regularity of the Ogham script should show itself to the informed eye. Examination of the long corners of seemingly rough stone lintels, stile treads or gateposts, for Ogham, may result in the identification of many more monuments than we know today.

## DEER - PARKS

Aruth ny a veth parys	Lord, we shall be ready
mylguen ha rethys kefrys	Greyhounds and nets likewise
yma thym stoff annetha	I have a wealth of them
kyn settyen oma karov	If here we set on a hart
dystogh y fye marov	forthwith he would be dead.
pyv a ros dywhy lescyans	Who has given to you license
rag dones in ov grond vy	to come into my ground
the helghya best arlythy	to hunt the lords' beasts?
gorthebugh war beyn mernbans	Answer on pain of death.

There were fifty deer-parks in Cornwall, some of them having banked hedges which still curve very distinctively across the landscape despite the lack of deer for four centuries. These remaining hedges can be traced, firstly and more easily, on a 1:25 000 map and then on the ground, where they make impressive sweeps across the landscape. Many of the deer-parks had tracks along the boundaries to help in looking after the hedges, and some of these later became country roads, as exemplified in part of the road between Helstone and Lanteglos. Just because a field has the name *park* or *parc* does not mean necessarily that it had anything to do with deer because in Cornish it describes an enclosed field (as opposed to an unhedged field *gweal*).

Most deer-parks were sited in the vicinity of a prestigious house as part of the view that was deliberately created to separate the landowner's house from the village. They often include wooded steep valley sides which provided winter shelter and browsing for the deer; their preferred diet includes the leaves and twigs of broadleaved trees. In most instances the land taken had originally been part of the local common, including woodland, which had provided the villagers with grazing for their stock and fuel for their cooking. Adding insult to injury, the villagers were forced to build the bounding hedges which were to exclude their livestock and to keep in the deer which they were not allowed to use for food.

Deer-parks were not intended to be ploughed, so were designed quite differently from the mediaeval rectangular layout of stitches in the open-fields. By building curved hedges, the maximum area of land was enclosed for the minimum length of hedge, and this saving of about one-fifth of hedge by avoiding corners is the commonest factor between all deer parks. Another reason may have been the propensity of deer to take fright; if they all rush into a corner they can damage each other, hence the lack of sharp corners in deer park hedges. Land enclosed by a curved hedge may be where it has been taken in from heathland, eg at Tresellern on the south side of East Moor, and despite a similar appearance should not be confused with a deer park. A dry ditch was often dug on the commons side of a hedge abutting a common to help in keeping out the agile hill sheep.

Rackham writes that 'Fallow deer are as strong as pigs and as agile as goats'. This was the reason for deer-hedges often to be built with dry ditches on the inside so that the hedge was much higher in that side. This also allowed deer which had escaped, or more importantly stags that had strayed from other parks, to get into the park, but not out again. By encouraging neighbouring stags, the dangers of inbreeding were reduced. In ordinary farmland, the ditch is only present if needed for field drainage, and the height of a deer-park hedge may now be reduced to that of the remainder of the farm's hedges; thus its structure may look no different from hedges that may have been built earlier or later for another purpose. Only its shape on the map, with its widely-curving line, sometimes still forming a virtually complete circle or oval, gives it away, with perhaps the word 'Deer' contained in the farm or place name. Hedges which follow the contours of the land may look on the map like deer-park hedges but taken in context will probably be found to have had nothing to do with deer-parks.

An account of how deer parks should be designed was given by Libault's *Maison Rustique, or the Country Farme* published in 1616. 'The parke,' he says, 'would be seated (if it be possible) within a



*Stone hedge built with a coping on the park side to deter deer from jumping out.*

wood of high and tall timber trees, in a place compassed about, and well fenced with walls made of rough stone and lime, or else of bricks and earth-lome, or else with poles made of oake planks. You must foresee that there be some little brooke of spring water running along by the place ... Nor must the parke to consist of one kind of ground only, as all of wood, all grasse, or all coppice ... Neither must the parke be situated upon any one entire hill, plaine, or else valley, but it must consist of divers hills, divers plains, and diveres valleys; the hills ... are commonly called the viewes ...the

plains ... are called ... the lawnds. ... The valleys which are called the coverts of places of leare for wild beasts, would be all very thicke sprung or under-wood, as well for the concealing of them from potchers and purloyners, as for giving them rest and shadow in the daytime ... Thus you see the parke must consist of view, lawnd, and covert, and the situation of hill, valley and plaine.' His advice is broad, and unfortunately does not relate to the curved boundaries, when he might have given definitive reasons for their rounded corners. In the day-to-day management, the deer always had access to the hill-tops which then remain in grass. Deer are natural browsers and prefer twiggy tree growth to grass, so much that only trees with leaves higher than they can reach will survive. Left to themselves, deer make woodland into bluebell woods, with no young tree growth being allowed to survive. Most Cornish deer parks were compartmentalised, with the woodland hedged or paled off in separate parcels. This allowed the trees to be coppiced in one parcel, and the regrowth allowed to flourish for several years until it was above the browsing height of the deer. Then it was thrown open to the deer, and another part of the woodland secured for coppicing. The hill tops, called lawnds (an early form of the word 'lawn') also contained trees but instead of being coppiced these were pollarded 2m-4m above ground so regrowth was too high for the deer to browse. These trees were the origin of many of the parkland trees so much beloved today.

Peter Herring states that the deer-parks in Cornwall tended to have 20%-30% of their area as steep-sided valleys containing woods, with relatively open or unwooded ground for the rest. Their sizes varied considerably, from more than 200 hectares at Liskeard New Park and Cotehele down to less than 4 hectares at Prideaux-place in 1867 with two dozen deer. This specification has been followed in most of our larger deer-parks in Cornwall, where each enclosed one or more steep-sided wooded valleys together with the broad open countryside between them. The valleys also afforded the shelter that deer require in winter and the quiet harbourage for resting during the daytime. Deer suffer from the same foot-rot as sheep and do not thrive in boggy land, hence our narrow valleys and dry broad hilltops are especially suitable.

The essence of a deer park was that it was physically separated from the surrounding land and was the mediaeval version of a landscaped ornamental park, with sporting and venison facilities incorporated. Often the park was designed to enhance the appearance of the landowner's castle or house, shutting off the view of the villagers' hovels. Another reason for the curved hedges might have been to avoid the straight lines and corners that are unsympathetic in the view.

Although most of the literature attributes the reason for having deer-parks being the desire for sport, more likely is the contribution of fresh meat in the winter when deer were culled. In deer-parks today, the income from venison contributes handsomely to the costs of upkeep.

After the Norman Conquest, all the sporting rights had been taken by King William and, in some measure the king's rights in Cornwall were passed to his Earl, but in the 13th century, King

Henry III sold Cornish sporting to many subjects, including to Walter Bronescombe, Bishop of Exeter in 1258. The Bishop decided to enclose the the woodlands of two of his manors, Pawton near Wadebridge and Lanner near St Allen and make them into deer parks, and in doing this upset Edmund, Earl of Cornwall, resulting in violent encounters between some of the earl's followers and some clerks of the bishop's household in 1274. Henderson continues that 'Master Jordan, a former Archdeacon of Cornwall, was roughly handled and his horse mutilated, the park fences [hedges] were destroyed, and the authority of the Church flouted. The bishop excommunicated his assailants, but did not dare to denounce the earl himself, the king's nephew. A year later he had the satisfaction of seeing the knight who led the assault, Sir Thomas de Kancia, kneeling as a penitent before him and offering fifty marks by way of compensation. Sir Thomas lived at Boconnoc.' Nine years later the Earl took the Bishop to court for obstructing public highways leading to Bodmin and Truro markets by making his deer parks at Pawton and Lanner. Henderson wrote that the Bishop won the day by showing that he had provided new alternative roads.

In 1305 Thomas de Prydyas, the tyrannical lord of Truro, complained that Nicholas Hogheles had broken into his deer park at Newham and stolen four fallow deer. Bishop Stapeldon complained in 1311 that his hedges were damaged. Later on there were poaching difficulties at the Bishop's deer park at Penryn where the same author describes the private doors into Glasney Abbey as being blocked up in 1330. Bishop Grandisson issued an order against those who 'with devilish daring entered the park [Glasney] and publicly and openly and with mighty clamour, with a view to hunting, and did slay, take and carry away our fallow deer and other wild animals kept therein; and did cut down and burn trees and shrubs growing therein.' The same problem continued in 1520 with the 'tenant of the bishop's park complaining that the Provost of Glasney and his servants went out daily hawking and hunting, treading down his corn, breaking his hedges, and killing his sheep with their spanynels [spaniels].' That the park contained corn and sheep, was the result of the disparking orders by Henry VIII in 1450, after which the bishop's parks were let to tenants who ploughed and cropped them.

When the Earldom of Cornwall became a Duchy in 1337, there were seven deer parks already belonging to the Earldom: Carrybullock (150 deer), Liskeard Old Park (200 deer), Lanteglos & Helsbury (180 deer), Trematon (42 deer), Restormel (300 deer) and Launceston (15 deer). The park at Lanteglos was not large, and its boundary is easy to trace on the 1:25 000 map and on the ground, Deer Park Farm being clearly marked. There is a record of when, in the early 14th century, the Duchy tenant John Hankyn lost 3 acres of land to Henry de Carwithuret because the latter had had 3 acres of his land enclosed in the new Lanteglos deer park. The park next door at Helsbury, which was run together with Lanteglos, included ancient Helsbury Castle and Helsbury Park Woods. Possibly the eastern boundary ran from Tuckingmill northwards along the parish boundary, then turning west just south of Henon where the hedge has the characteristic appearance of a deer park boundary.

These deer-parks at Lanteglos and Helsbury were created before 1189. In 1456, the office of Parker of these parks was granted by Henry VI to John Arundel, together with the herbage, pannage [acorns for pigs], and dead wood [fallen branches for fuel], for the term of his lifetime. Whether by the death of John Arundel or consequent to the overthrow of the king is not known, it was again in the hands of the Crown in 1462 when William Menwynnek and Nichlas Loure took the pannage for seven years at the annual rent of 40 shillings, the tenancy binding them to leave sufficient pasture for the wild animals.

Susan Pittman, who has published a fascinating booklet to be seen in the Stoke Climsland Parish Archive, was able, in 1984-6, to trace the boundary hedges of the Kerrybullock deer-park at Stoke Climsland. There are records of it in 1215, as part of the Royal Forest, made into a deer-park in 1272, passed into the ownership of the Duchy of Cornwall in 1337, dis-parked by Henry VIII in 1542 and sold by the Duchy in 1984 to become the privately owned Deer Park Farm. In 1337, the 'customary tenants ... were expected to help to maintain the park enclosure ... for which they could be paid a penny halfpenny or a penny and three-farthings a perch'. 'The Accession Roll of 1364 mentions that customary tenants were expected to plough land in the park for the lord.' By the 15th

century, the income equalled the cost of hedge and pale fencing on top of parts of it. The park was about 500 acres, including woodland covering one-tenth of the area. Sir Richard Buller's lease in the 17th century required the tenant '... to ensure that the woods were securely enclosed to prevent damage by wandering stock'. In leases in 1702 and 1707, one-sixth of the wood was to be cut each year. Fifty years later the surveyor G. Bayntum considered the woodland should only be cut once in 23 years because of the 'badness of the soil'; but the new lease said that cutting was to be once in every ten years, an example where economic factors overrode environmental concern.



*Coffen stile in a former deer-park built with a curve through the hedge to prevent deer from jumping across.*

Some time after 1370, the Duchy lost interest in the deer and in 1540, the surviving parks were converted into cattle pasture. These were Restormel, Kerrybullock, Trematon, Launceston, Lanteglos & Helsbury. Even so, Launceston borough was still beating the bounds around the enclosing hedges of its deer park in 1806.

It seems that continuous repair had to be made to the hedges, banks and ditches surrounding the parks. At the start, the foremost consideration was always the welfare of the deer, which took precedence over the making of profits. The complete re-hedging of Liskeard park cost £20. Later on, when little use was being made by the Dukes of Cornwall of their parks, they appear to have been enjoyed more by trespassers, ie the villagers whose land it had been originally, than by the Dukes. By the time that the deer-parks were dis-parked by Henry VIII, it was said that the expenses exceeded the letting value of the grass.

Carew, writing in 1602, remarked that 'Most of the Cornish gentlemen, preferring gain to delight, or making gain their delight, shortly after ... [the Duchy deer-parks were dis-parked] ... made their deer leap over the pale to give the bullocks place ...'

In 1337, the hedges around Trematon deer park, which was adjoining the castle on the north side, cost 40/- annually to keep in 42 deer. This was obviously a small park, its boundary hedges are uncertain, but the map suggests that it may be part of the land of Stoketon Manor, with the main A38 as its northern boundary. This is the only area close to Trematon which does not show the traces of stitches and open-fields on the map which are clearly displayed on both sides of Cumble Lane, Board land and on the road to White Cross on the west and east sides of Trematon village.

The beautiful woods in the Allen valley are attributed to the deer park created by Sir Walter de Carminow in 1357 at Polrode, although it lasted for less than 200 years. Polrode is not evident on the map, but there is a hedge line shown, looking like a deer park hedge, which runs from St Tudy via Bodinnick Farm, and part of the parish boundary, to the river Allen at Manor House. Other private deer-parks that were emparked before 1560 included Lanner, Merthen, Trelowarren, Penryn, Caerhayes, Lanhadron, Peptilet, St Germans, Pawton, Polrode, Wolloaton, Hornacott and Boconnoc. The Bassetts had a deer-park on Carn Brea, using the castle as a hunting lodge. Its park hedge survives on the west and south sides. When the hill started to be mined for tin and copper, the deer were moved to the park at Tehidy where part of it is a golf course today.

Mount Edgcumbe, Treluddra, Launcells, Trelowarren, Cotehele, Godolphin, Newton Ferris, St Winnow and Halton were deer-parks during the reign of Queen Elizabeth I. Under the Stuart kings, Tregothnan, Werrington and Lanreath came into being as parks, and the 18th century saw the rise of parks at Carclew, Badridge in Boyton, Trevethoe in Lelant, Treworgey in Liskeard, Lanvethan in Blisland, Tremough in Mabe, and Penrice in St Austell, with smaller paddocks at Padstow,

Trewithen, Penrose, Trefusis, and Trevaunance in St Agnes. Francis Drake (his uncle defeated the Armada) made the deer park at Werrington. It was 352 acres and held up to 630 fallow deer. He made it without the Royal License and so could not prosecute the many trespassers until 1631 when he got a retroactive licence to enclose from Charles I.

From time to time it became fashionable to keep a few deer. Aspiring social climbers would often keep deer in a small field when they lacked the financial resources to set up a proper deer-park. Alvecott, a non-duchy farm in North Tamerton, had in 1614 a field called Deer Park but it contained only 1¼ acres. Hornacott Manor had one field of arable land called Little Deare Park containing 7 acres and some woodland called Deare Park containing 27 acres. In Trelill in Breock, there was 'one close called the dere Parks.' Examination of the 1:25 000 map shows places where deer parks once existed, for example Deer Park Mine near Rejerrah may have been part of Treludderow Manor, with curved hedges shown clearly on the map. This was confirmed by Henderson, but there may be more to be identified.

The deer parks existing today with deer are at Tregothnan with 180 deer and at Boconnoc with 100 deer. Those at Carclew, Penrice, Werrington and Mount Edgcumbe have not kept deer since 1935. A small number of commercial deer farms have been created during the past fifty years, most of them only lasting a short while. Their field boundaries were, in the main, based on high wire fences without any reliance on traditional Cornish hedges and they leave no lasting evidence of their existence.

Present-day owners of deer-park hedges can take much enjoyment from their curved sweep across the landscape, especially where the original house, or its successor, is still in place.

## DEW - PONDS

There are at least two dozen dew-ponds surviving in West Penwith, and there are more on the Lizard, Bodmin moor and other upland parts of Cornwall. Most of them are unrecognised for what they are and there is still a mystery as to how they contain so much water during the summer months. Some of them are crossed by Cornish or stone hedges which were put there when the land was enclosed during Mediæval times or earlier, giving water to stock on each side of the hedge. It is important that they are recognised for what they are, and the hedge and pond looked after appropriately. At Zennor, one such pond-crossing hedge, a former boundary between two farms, at Zennor has been identified as being of the same age as the Dartmoor reaves, about 1200BC. As this dew-pond almost certainly pre-dates the hedge, it has probably been serving farmers for over 3000



*Disused and filled-in dew-pond showing as damp patches on either side of the Cornish hedge which was built across it.*

years. Wartime excavations by Croft-Andrew, on Davidstow Moor discovered what appears from his account to have been a typical dew-pond, referred to as a 'pond barrow', 8m (25') diameter, 56cm (22") deep. Found in it was a flint borer which may have indicated a prehistoric origin. Two charcoal samples gave radioactive carbon14 dates of about 1600BC.

The word 'dew' may be misleading, and dew-ponds are one of the mysteries of our landscape. They are found throughout Britain but little is yet known of their origin. Although most, if not all, of

the dew-ponds in Cornwall may be of prehistoric origin, many new dew-ponds were built in other parts of Britain in the free-draining areas of chalk and limestone during the 18th and 19th centuries. It was recorded by the Hubbards in 1904 that: 'There is still at least one wandering gang of men (analogous to the mediaeval bands of bell-founders, masons &c.) who will construct for the modern farmer a pond which will always contain water. This water is not derived from springs or rainfall, and is speedily lost if even the smallest rivulet is allowed to flow into the pond. The gang of dew-pond makers commence operations by hollowing out the earth for a space far in excess of the apparent requirements of the proposed pond. They then thickly cover the whole of the hollow with a coating of dry straw. The straw in its turn is covered by a layer of well-chosen, finely puddled clay, and the upper surface of the clay is then closely strewn with stones. Care has to be taken that the margin of the straw is effectively protected by clay. The pond will gradually become filled with water, the more rapidly the larger it is, even though no rain may fall. ... As the condensation during the night is in excess of the evaporation during the day, the pond becomes, night by night, gradually filled.'

We do not know whether this account is by hearsay, or the authors actually witnessed the construction of a dew-pond. Other accounts give similar stories. It was generally believed that the dew-pond was constructed so that its surface was cooler at night than the surrounding countryside, so attracting the moisture in the air. What is in contention is why a well-maintained dew-pond seems to have more water from rainfall and condensation than anyone has been able to calculate, hence:

'We have no water to delight  
Our broad and brookless vales -  
Only the dew-pond on the height  
Unfed, which never fails.'

(Rudyard Kipling.)

For several farmers in West Penwith, their dew-ponds are the only source of water for off-lying areas of downland, now being used for cattle grazing after silage has been taken. Apart from their farming value, the ponds provide wet places for wildlife, notably wading birds and dragonflies. Bog-loving plants, eg sundew, bog asphodel, are found at the brink.

Some dew ponds are divided by a Cornish hedge and the repair and maintenance of these hedges can be a problem for the unskilled. It is important to realise that the pond was almost certainly there before the hedge, and that the grounders of the hedge rest on the clay lining of the dew-pond. The earth and stones which have fallen from the hedge also lie on top of the lining. In the repair and casting up of the hedge, great care must be taken not to injure the clay lining; the work is best done by hand with a Cornish shovel. No machinery should



*Newly-restored dew-pond.*

move on to the pond even for the periodic cleaning out, when all the work should be done by reaching in from the edge. If the clay-lining is damaged, the pond will leak and may be irreparable. A well-known and wicked dodge by a disaffected neighbour was to deliberately make a hole in the clay lining of his enemy's dew-pond so that it lost its water.

Although the method of construction, with a clay lining, is known, the art of correct siting has been lost. The paradoxical ability to gather and hold water throughout most summers has perplexed many during the past 150 years. A good dew-pond has these features:-

Is sited on free-draining land so there is no apparent stream or spring to feed it, even in winter.

Does not dry out in summer (unless watering livestock).

Has no apparent overflow although it may be brim-full for many weeks in winter.

Waters a surprisingly large number of cattle for a long time in the summer.

In addition to the four points above, in West Penwith and on the Lizard, it is always saucer-shaped and circular, but when disused, may be so filled up with weeds and mud that only the outline is discernable.



*Restored half of a pre-mediaeval dew-pond with ancient farm boundary running across the middle.*

A West Penwith farmer has told the author that he watered 45 cattle from April to November 1998 from a dew-pond sited near a hilltop named appropriately Dry Carn with the 45 animals drinking it dry for only two weeks in July. During these 8 months they probably drank more than 30m<sup>3</sup> of water from a pond with less than 9m<sup>3</sup> capacity. The dew-pond measures 7m in diameter. The

annual rainfall is about 1.2m which means that the dew-pond would be receiving about 26m<sup>3</sup> in the whole year, obviously less during the months April to November. The ground around the dew-pond is free-draining and not obviously sloping into the dew pond. There are no springs or streams within half a mile.

Other local farmers with similar dew-ponds are equally mystified, but very grateful, for the way that their dew-ponds provide water for their cattle so effectively during summer. It is probably no coincidence that in Cornwall the sites of dew-ponds known to the author are all in localities which attract fog and low cloud in summer months. Gilbert White found the same in Wiltshire where he recorded in 1776 that a dew-pond of 9m in diameter, 1m deep at the centre, had 'never been known to fail, yet it affords drink for three hundred or four hundred sheep, and for at least twenty head of large cattle beside.'

## CANALS

Threading its way across north-east Cornwall's landscape is the Bude Canal, a tub-boat canal built between 1819 and 1826 from Bude to Launceston and Tamar Lakes, totalling thirty-five miles. It is described in *The Bude Canal* by Helen Harris and Monica Ellis (David & Charles 1972) but this book does not point out that the route of the canal can be followed today on the ground only by hedges for most of its length. Much of its design was by the American Robert Fulton who was involved in the invention of torpedoes and submarines. The canal had six inclined planes, more than any other canal in Britain, and each canal boat had four iron wheels permanently attached which ran on rails up the inclines. Each boat was 6m long, width 1.6m with a draught of 0.5m and carried 4 tons. It was to serve Holsworthy and Launceston with general goods from ships in Bude Harbour,

and more especially for carrying sand to farms for spreading on the land to correct the natural acidity of the soil. It ran from 1824 to 1891 and also transported coal and limestone imported from Wales, while exporting wood, bark and oats. Its completion was stopped by the expansion of the Southern Railway and it was finally taken over by the Bude & Stratton Urban & District Council in 1960.

Tracing its route, using the hedges and a 1:25000 map, makes for an enjoyable day's excursion in this part of Cornwall with its pretty countryside away from the coastal tourist blight. The best place to start is in Bude, then at Helebridge on the A39 and through Marhamchurch. The two short sections south of Lower Cam Orchard are easily seen from the road, then to Hobbacott where there is a good view across the valley of the Hobbacott incline, which can be reached by a footpath from Hobbacott. For the less able, there is a good lay-by (grid ref. 245/051) on the Stratton-Red Post road (A3072) and a footpath which goes over the canal, where the fittings for lock-gates are still in evidence. The outline of the 300m Hobbacott incline on the hillside is clearly marked by its straight, parallel hedges. It had two sets of rails and was operated by two huge buckets as balance weights, each holding fifteen tons of water, descending alternately into 70m-deep shafts. By this means, the boats were raised or lowered 225 feet on the incline which was 935 feet long.



*Bude canal incline at Hobbacott Down, with the position of the pumping-house at the top clearly identifiable.*

Along much of the Bude canal's length there are relics of canal-side hedges, although many have disappeared. Often there is only one hedge remaining, with no trace of the canal itself, as exemplified by the route between the Hobbacott incline and Red Post which is seen from both the main road and the minor B3254. Tracing it from the roads is not easy until it crosses the road near Crawford Bridge, Tamerton Bridge, Boytonbridge, Tamatown and just short of Crossgate, about 2 miles from Launceston. The other branch goes off at Red Post and is marked for much of its length by a single hedge, the map shows where the canal cut is still to be seen. From Red Post it runs to Tamar Lakes, the route going close to Shernick, Anderton, Burmsdon, Vealand and Puckland. Part of this branch still carries water as an aqueduct supplying Bude. An interesting condition of the enabling Act in 1819 is that: 'the ... Company shall at their own costs ... divide and separate ... the Canal ... from the adjoining lands ... by Posts and Rails, Hedges, Ditches, Trenches, Banks or other Fences, sufficient to keep off Sheep and other Cattle, the same to be set out and made on the Lands ... [of] the Company [who] shall at their ... own Costs ... maintain the Post and Rails, Hedges, Ditches, Trenches, Banks so set up.' Similar obligations were set down for stiles, gates and bridges. Following the Bude & Stratton UDC Act 1960, most of the canal land was sold to the adjoining landowners and from then on the hedges have been looked after by them. In several instances, all evidence of the canal and its associated hedges has been removed, but fortunately most of its length has been preserved by the landowners keeping at least one of its enclosing hedges. In 2006, funds were obtained for conservation of part of the Bude end of the canal, and it is hoped that the existing hedges will continue to be allowed to mark its route for the rest of the way.

There were small canals elsewhere in Cornwall. In Hayle there was a ship-canal, with a hedge-like structure, still existing, which separated it from Copperhouse Pool. Interestingly this was built with blocks of slag from the nearby smelter. At Newquay, a canal started at Lusty Glaze, in 1773, and ran inland for nine miles, another went from Trenaunce Point to Whitewater Farm, three miles away. Very little of these two remain. On the south coast there was the six-mile twenty-four

lock canal from Liskeard to Looe, now mostly built over by the branch railway, and the clay canal which ran from Pont's Mill to Par. Nothing to do with hedges is the canal, about half-mile long and totally underground, at Carclase tin mine.

## WATER - MILLS AND MILL - LEATS

Hedges were often built alongside leats which supplied water to mills equipped with water wheels, presumably to stop cattle from crossing and re-crossing the leat and breaking down its banks. From Roman times until the coming of steam engines in the late 18th century water and wind were the only non-animate sources of power and during that period many hundreds of Cornish water mills were built, used and abandoned. They were used for a wide variety of processes, including grinding corn, making cloth and paper, sawing timber, bone crushing, smithing and for the many mining activities. Near St Just in 1822, the stream flowing two miles between Bostraze and the sea provided power for seventeen stamping-mills and three corn-mills. The stream through Zennor had four water-mills in its one mile of flow. Every stream of a useful size in West Cornwall had several water-mills within its length. Only six mills were recorded for Cornwall in the Domesday Book but there is little doubt that there was massive under-recording of all activities in Cornwall, especially in the west.

To drive a water-wheel, a stream had to be harnessed at some distance from the mill so that the leat, which was dug to a fall much less than the natural flow of the stream, would deliver water to the mill at a height-difference enough to work the wheel. A leat running across the middle of a field was clearly inconvenient and, because the course of a leat is fixed by the lie of the land, a hedge had to follow the leat. Later on the mill became disused, and the leat abandoned and filled up, leaving the hedge, often either dead-straight or running along the contour, as perhaps the only surviving part of the milling activity. These hedges can often be clearly identified by looking at the early maps, when many leats were still in working use, or had been abandoned so recently as to remain marked on the map.

Sometimes the leat and hedge attract a footpath to the mill as between Trebudannon and Tregoose Mill. This was where, in 1680, Robert Hoblyn of Nanswhyden House, Colan leased to William Hawkey 'a strip of land 9 feet wide and in length from the north side of the 3 meadows from the River Tregoose' so that he could construct a mill-leat for his mill at Tregoose. The existence of former mills can often be guessed by the Cornish naming of the mill (*velin* or *vellan*). Where there used to be a mill, there was also the miller's house, and more often only the mill house remains and the site of the mill has to be guessed. Often the mill building also remains, perhaps as a barn, one wall to the stream-bank, though the water-wheel has nearly always gone. Scores were dismantled during the second world war when, like the thousands of tons of ornate Victorian cast-iron railings, they were donated to the war-effort but ended as scrap iron in the hands of the 'spivs' after the war. From the site of the old mill, the route of the leat can usually be traced along the contours, and it is easy to identify any hedges which coincided with the leat. Should there be an intention, in an energy-hungry world, to rebuild the water-wheel, the existence of a hedge marking the route would be invaluable in bringing water again to the mill.

## TIDE - MILLS

At Sea Mills, St Issey, at the end of a quiet lane on Little Petherick Creek, there is a curious 1.6ha tidal pond, enclosed by a long Cornish hedge built of slate set vertically in courses, which used to feed an undershot 9m x 1.2m wheel in a tide-mill which worked from before 1675, with a capacity in 1810 of grinding over one hundred bushels of corn a week. It relied on sailing ships for transport, and so was effectively stopped by the building of the railway-bridge across the creek in 1899.

There are remains of a stone hedge built on the mud flats to keep in enough water to power a



*Slate-built Cornish hedge enclosing pool for tide-mill on the river Camel. Foreground section breached by the sea shows basic construction.*

tide-mill for the Trelawne Estate. This was built in 1615 and was more than 640 metres long. We know of nineteen tide-mills in Cornwall. In the south-east, there were mills at Higher Salter, Salter, Antony Passage, Carbeal, Millbrook, Delabole, Wacker and Polvellan. Working on to the Fal estuary there were tide-mills at Place, Froe, Penpol, Mylor Bridge and Old Bar. The tide-mill at West Looe was built by one of the Arundels of Tremodart, probably in 1614. Its pool had an enclosing Cornish hedge about 2m high and almost broad enough for a coach to go along it. They were also at

Hayle, St Issey, St Minver and Bude. In many instances the mill-pools were enclosed by substantial Cornish hedges which can still be seen today, as on Carnsew Pool at Hayle.

## SEA - WALLS AND QUAYS

Along many of our tidal estuaries, Cornish hedges were built to enclose areas of muddy foreshore for keeping shellfish and for entrapping fish.

In the Domesday Book, there were 10 salt pans recorded for the manor of Stratton. Possibly there are still some remains, enclosed by sea walls built as Cornish hedges.

The Cornish word for hedge is **kee** and this word has remained in the English language as “quay” to describe a jetty or landing stage. Many earlier documents quote “*key*” in place of “quay”, relating for example to harbour constructions at St Ives, St Agnes, and Boscastle. There are plenty of stone-built quays still in use in Cornwall and a close examination of them reveals their construction as being similar to that of a Cornish hedge, only on a larger scale. The impression is given that the favoured method of building was to use the stones on edge. Traditionally, this has always been regarded as a better, stronger form of construction than putting stones on their flat.

## HEDGES IN WAR

The Civil War was fought on Cornish soil on several occasions between 1642 and 1646. Our Cornish hedges were used as successive lines of defence, much as the Germans used similar hedges in Normandy in 1945. Before the capture of Launceston, the Parliamentarians made their way through the fields towards the town, beating out 'like sheep' the Royalist musketeers who lined the hedges. but the 'roundheads' suffered later in the battle because the hedges delayed the bringing-up of their cavalry. The hedgebanks gave shelter to the soldiers both from the weather and from the musket-balls of the enemy. Sir Bevil Grenville, writing to his wife on 19th January 1643, told her that at Boconnoc Park 'we quartered all our army that night, by good fires, under the hedges.' Most of the fighting in the defeat of the Parliamentary army at Lostwithiel was in the enclosed fields around the town. The Cornish in the Royalist army beat the tired Parliamentarians from hedge to hedge until they finally made a stand above Fowey. In 1648 Moyle wrote to Francis Buller, a prominent Parliamentarian, that in quelling a Royalist revolt at Gear, near Helston: 'the enemies were totally scattered, about 60

or 70 slain, some drowned, sixty taken the rest fled, partly by the advantage of the hedges, and partly by reason that three hundred men from St Keverne were to come'.

Most of the Cornish people were involved with what at times was open warfare between customs officers and the local people. Smuggling, always a significant industry in Cornwall, would not have been possible without our hedges. They shielded the lanes from prying eyes, and made escape across country much easier. They also provided underground hiding places. Sometimes the innocent cottage hull would be put to a less law-abiding use overnight, sometimes a short tunnel was made inside the hedge at a concealed place to take the consignment of contraband goods. The amount was not insignificant. In the 1770s nearly half-a-million gallons of brandy and over 70 tons of tea were being smuggled into Cornwall each year. Wool was being smuggled out of Cornwall to avoid the export tax, a typical small schooner or lugger took out a wool cargo such as one of 8 tons recorded to St Malo in 1783. Much tin was illegally exported, being an excellent ballast for the vessels sailing with pilchards to the Mediterranean, while avoiding the Duchy monopoly and taxation. Smuggling was much reduced following the abolition of the coinage on tin in 1838.

Many of the French prisoners of the Napoleonic wars were kept in Cornwall and built some of the hedges found on the higher ground, where it would not have been economic for the farmer to pay labour for the work. People in West Penwith recount that some of the hedges between Greenburrow and Carn Galver were thus built. At Roscarrock, between Port Quin and Port Isaac, many of the fields of the farm are bordered with stone hedges built by these prisoners of war. The shape of some, on the 25" map, suggests that they were old hedges, gurgoes, that were completely rebuilt. There is no doubt that many hedges on the downs were built new, or were gurgoes rebuilt, by French prisoners of war.



*Hedge at Tregurrian built by Second World War prisoners-of-war.*

History repeated itself in World War 2 when help came from German and Italian prisoners of war who were sometimes used to make new hedges; one exists bordering the coast road at Tregurrian, Newquay where a small croft was reclaimed during the war. The prisoners of war, who were only too glad to get out of their camps into the countryside, were a plentiful source of unskilled labour. The author remembers how on his father's farm at Bonallack (near Gweek) the Italian prisoners were friendly and full of chat. Later on the Italians were replaced by the Germans who were surly, but did a lot more work. The

prisoners did much useful work in clearing the scrub that had invaded many fields during the inter-war years, to expose the hedges which could then be put into proper repair. German prisoners of war from Bake Camp, near Saltash, were still hedge-trimming in August 1946, fifteen months after the end of the war. Often the trimming of hedge sides during the war was done by the Women's Land Army. Barbed wire fences were used for the first time by many farmers short of labour, whose workers had been called up into the armed forces.

Some roadside hedges got in the way of the massive Allied invasion across the English Channel in 1944. The mainly American tanks on their road transporters were too wide for the minor roads leading to the embarkation points on the Helford and Fal estuaries and many lengths of the roadside hedges were taken down and rebuilt several yards back into the fields. These noticeably-improved roads with well-built hedges remain today. Other mementoes of the conflict might be less

welcome. In July 2006, over 60 years after the Second World War, a mechanical digger found some hand grenades buried in a Cornish hedge at Ruan High Lanes, on the Roseland peninsula. They were dealt with by the bomb disposal unit.

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