



DEVON COUNTY COUNCIL

Thatch in Devon

www.devon.gov.uk

March 2003

Thatch in Devon

Published by Devon County Council - March 2003

Cover photograph: courtesy of Bryan Harper

For further information on the material in this leaflet, please contact:

The Historic Building Section, Environment Directorate, County Hall, Exeter EX2 4QW.

Telephone 01392 382261

Email: environment@devon.gov.uk

Thatch in Devon

This leaflet has been written to provide some general information to owners of thatched houses in Devon. It is not a comprehensive account of Devon thatching but provides an outline of what is known today of the local thatching traditions in the county and of present thatching practice. It gives advice on how to look after thatch and on appropriate fire precautions for thatched houses. It discusses the need for consent to alter thatch on Listed Buildings and has a list of useful contacts as well as a brief reading list. For those who are interested in a much more detailed account of the local thatching tradition 'Devon Thatch' (see the bibliography) is strongly recommended.

1. The Importance of Devon Thatch

Thatch is part of the identity and character of Devon. It is a roofing material that has been used here for over 600 years and it has survived better in Devon than in any other English county. Devon contains the greatest amount of historic thatch in the world. Today the county probably has about 4,000 thatched buildings. These are only a fraction of what once existed. Devon thatch is now mostly confined to rural houses, although there were until relatively recent times thousands of thatched farm buildings, as well as many thatched buildings in Devon's towns.

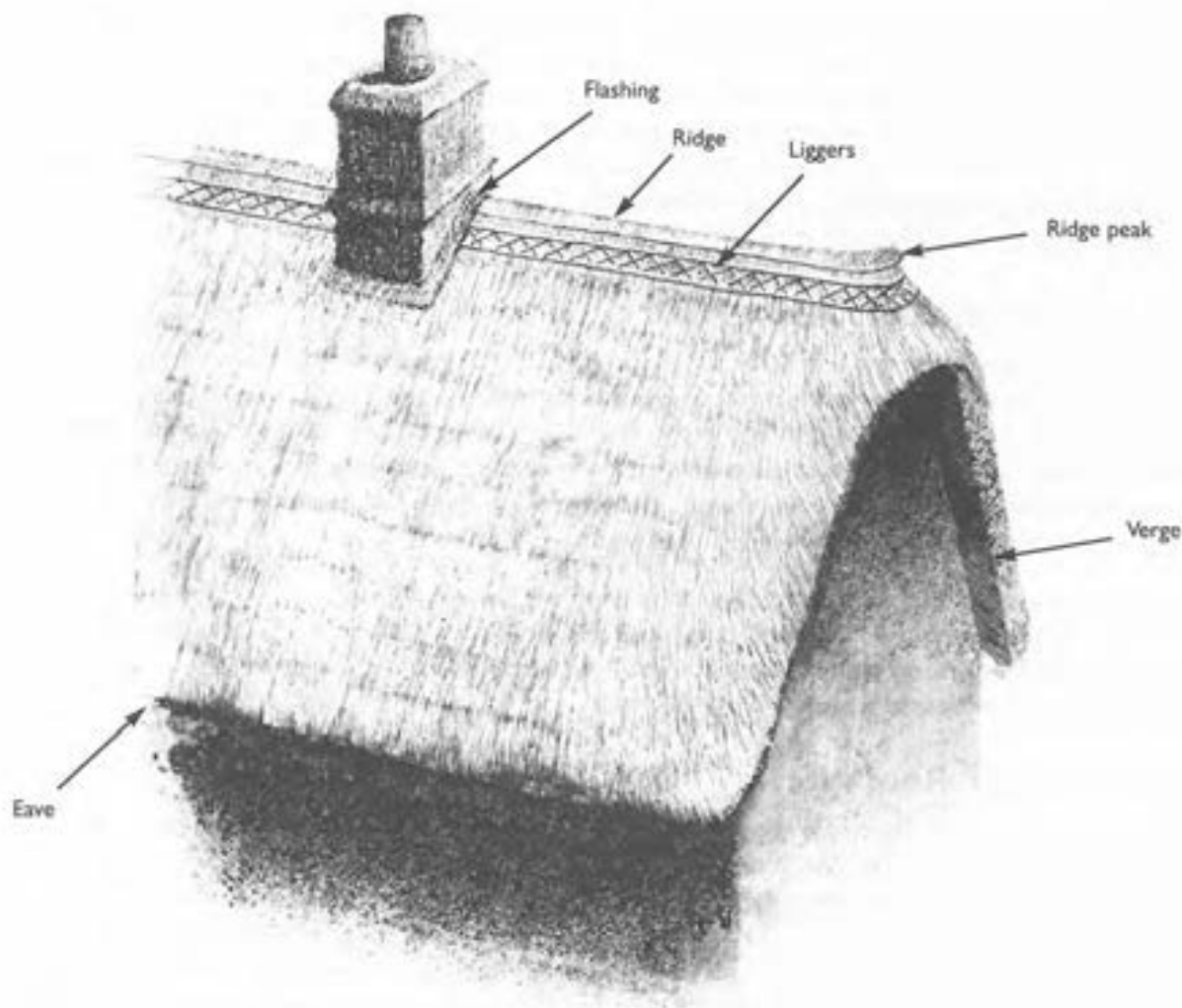
Most thatched houses in Devon are listed buildings and have statutory protection because they are of special historic or architectural interest. Devon has 3,983, or 17% of the national total of thatched buildings of special historic or architectural interest. The thatch on listed buildings in Devon can be an important part of their special interest.

2. How a Thatch Roof Works

Thatching is a highly-skilled job and a good thatcher will lay the material so that water runs quickly, evenly and efficiently off the roof and is carefully directed away from any points where a leak might occur, particularly junctions with chimney stacks or dormers. The steeper the pitch of the roof, the faster rainwater runs down the stems of the thatching material and off the roof. Damp does not penetrate far into the top layer of a thatched roof in good condition; most of the thatch remains dry all the time. Unlike other roofing materials, there is no need for guttering because thatch has deep projecting eaves. This ensures that water is shed from the roof well away from the base of the walls, avoiding splash damage. Thatched roofs provide excellent insulation, keeping the house warm in winter and cool in summer.

As an organic material thatch decays and, over time, the stems of the thatching material degrade and rot back. The ridge of a thatched roof is particularly vulnerable and will need replacing at intervals of anything between six to twelve years. The rest of the thatch will last much longer. When the fixings of thatch (which may be horizontal lengths of split wood called sways, or today, sometimes wire), which are covered by courses of thatch, begin to show, it is an obvious sign that it is time to carry out some patching, or re-thatching. Orientation and local conditions mean that one pitch of the roof may need attention before the other.

Drawing 1 - External features of a thatched roof



3. The Local Tradition in Devon

Thatching has always had regional variations, although improved communications have eroded some of the differences between the regions, particularly in the last 50 years. There are a number of techniques and details formerly used in Devon, but not used today. We do not know all there is to know about the local traditions and this is one of the reasons why it is important to preserve old thatching in case this includes evidence that has not yet been noticed or analysed.

Materials

Combed wheat reed (wheat reed, Devon reed)

All the evidence from documents, illustrations and from surviving old thatch shows that Devon has a strong local tradition of combed straw thatching, going back at least 600 years, using a method that was probably unique to the South West. This type of thatching is known today as 'combed wheat reed', 'wheat reed' or simply 'Devon reed'. It uses straw from local wheat crops (although in the past rye was used too) to produce a roof covering. The crop is specially processed, being combed clean of short straws and leaves, with all the stems lying in the same direction and provided to the thatcher in bundles, known as niches.

The appearance of a freshly-thatched combed wheat reed roof is neat, even and well-packed, although the packing should not be too tight. The butt ends of the straws form the face of the thatch and show as tiny circles.

Combed wheat reed, using good quality material and fitted by a good thatcher, is still an excellent Devon thatch. The raw material is mostly grown in Devon by farmers and thatchers who, today, specialise in producing straw for thatched roofs. This is a skilled process using tall varieties of wheat, special growing methods and special machinery for harvesting, threshing and combing to ensure the best quality roofing material. Combed wheat reed, grown in Devon is a sustainable building material. It is a renewable resource. It does not have to be transported over long distances. It provides an energy-efficient roof covering. However, there are good and bad seasons for the production of thatching straw, as there are for any grown crop, and there are seasons when it is scarce.

Water Reed

Since the 1950s, water reed (*Phragmites australis*) has also been used extensively on Devon roofs. A shortage of local wheat straw in the 1950s, combined with the development of an industry importing water reed from other countries, encouraged the replacement of straw overcoats with water reed. The water reed used today is nearly all grown outside England. Turkey, Hungary and Austria are common sources. Water reed from Norfolk, where most native water reed is grown in managed reed beds, is occasionally used.

Good Devon thatchers have adapted the use of water reed, fitting it in a similar style to traditional combed wheat reed and using local traditional detail. It can be difficult for a non-thatcher to tell the difference between water reed fitted this way and combed wheat reed. There are subtle differences in colour and sometimes in overall shape because water reed has longer, stiffer stems than wheat straw. Good quality water reed, fitted by a good thatcher is a useful alternative to combed wheat reed in Devon, if it has been established that combed wheat reed is unavailable and if your thatcher is unable to keep your roof maintained by patching until supplies of good combed wheat reed can be found. Water reed is not the main historic tradition in Devon and you will probably need Listed Building Consent if your house is listed and you propose to change the thatching material from wheat to water reed (See Sections 6 and 11, below). Water reed does not have the same links to local farming and local growing skills and it has to be transported over relatively long distances.

Materials for fixing

Thatching battens (the thin strips of timber between the rafters of the roof) were usually oak before about 1700, and were likely to be fixed to the backs of the rafters with oak pegs, rather than nails. Historically, many different local materials were used to fix the thatch to the roof. The layer fixed to the roof construction was sometimes tied or stitched on to the timbers with tarred twine, but hedgerow materials were also used. Split hazel, willow, or rope made out of twisted straw were used to fix down each course of thatch.

Today combed wheat reed is sometimes still fixed with pliant split wooden (usually hazel) rods, called sways, fixed into the course below by U-shaped wooden staples, called spars. Today some thatchers use steel rods or wires and screws in place of sways.

Rethatching Method (Drawing 3)

In Devon, when a house is re-thatched, it is traditional for the thatcher to strip off only as much old thatch necessary to reach a sound base into which the new thatch can be fixed. This is known as 'spar-coating' or 'overcoating'. In other parts of the country, for example in Norfolk, when water reed is used, the old thatch is completely removed, right down to the roof timbers.

Most Devon thatchers today rethatch by overcoating, whether they are using combed wheat reed or water reed. One of the benefits of this technique is to preserve old layers of thatch and historically important parts of an old roof (see Section 7 on archaeology below).

There are exceptional cases where stripping back to the roof timbers may be unavoidable, perhaps because the thatch has been badly neglected. If you have a listed building and stripping is recommended by your thatcher, you should ask for advice from the conservation officer and check whether the work needs Listed Building Consent (see Sections 6 and 11 below).

As with other thatching methods, the thatcher lays combed straw in courses, upwards from the eaves to the ridge, the fixings of each course covered by the course above.

The Overall Profile of the Roof

Devon vernacular houses usually have roofs of a relatively shallow pitch. The pitch and the shape of the roof are essentially determined by the design of the roof construction, but can also be affected by the thatch and the way in which it been built up and laid. Rethatching can alter the shape of a roof and this should be discussed with the thatcher, who should be aware if you want the general shape of your roof to remain the same. A great depth of old thatch may, over time, flatten out the pitch by several degrees. Your thatcher may recommend that, for better performance, the pitch is made steeper to encourage rainwater to drain off faster. In some cases this can be achieved by reducing the depth of the old thatch at the bottom of the roof slope.

Details of the Roof

Ridges

Evidence from illustrations and photographs shows that, externally, traditional thatched Devon roofs were plain, whether on high status buildings or simple cottages. This plain character fits in well with the external appearance of vernacular Devon buildings. The ridges of Devon thatched buildings today fall into two categories, flush and block-cut, with variations in each category. There is no practical advantage in a block-cut ridge over a flush ridge on an overcoated roof. A patterned block-cut ridge will cost more than a ridge without cut patterns.

Flush Ridges

The traditional Devon ridge was flush with the plane of the roof. Some illustrations from the 19th century show patterning, rather like cross-stitching, on the ridge. This was made using lengths of split timber ('liggers') clamped into the ridge by spars. Flush ridges are sometimes decorated this way today but a plainer finish is more traditional to Devon (see Drawing 3).

Block-cut Ridges

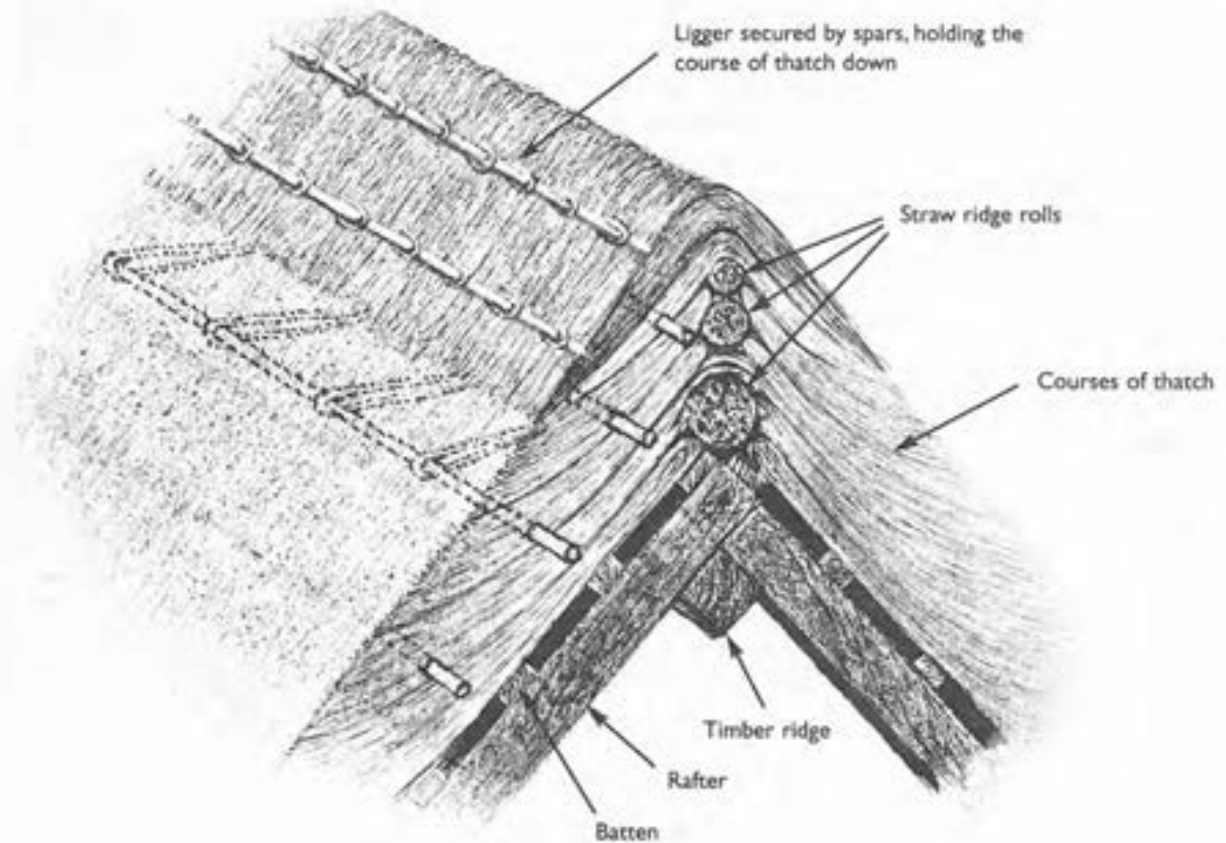
These ridges stand proud of the plane of the roof. There is no evidence for block-cut ridges on traditional buildings in Devon before the late 19th century. They are not necessary on multi-layered thatch. Documentary evidence and photographs show that block-cut ridges remained rare until the 1930s and the fancy decorated versions are later still and probably an imported detail from East Anglian thatching.

Ridge Peaks

If old photographs show that traditional Devon thatched ridges were flush and undecorated, they also reveal a lively variety of ridge peaks. The peak is the finish at the ends of a ridge. Peaks are functional, waterproofing the ends of the ridge, but photographs show that some thatchers treated them ornamentally. Some peaks pointed away from the roof, some turned backwards across the ridge like horns, others pointed skywards like a top knot. These may have been the trademarks of particular thatchers or thatching families and continue to be used by some thatchers today. (see Drawing 1)

Drawing 2 - A flush ridge.

This is shown with a traditional plain Devon finish. The ridge is finished flush with the pitch of the rest of the roof and its fixings are not elaborately patterned.



Ridge Ornaments

Thatch ornaments - pheasants, owls, etc. on the ridge are almost certainly no earlier than the 20th century. None has been noted on early photographs of Devon buildings. They are less pleasing than an ornamental ridge peak, which is an integral part of the thatch.

Eaves & Verges

Combed wheat reed and water reed thatch need a 'kick' or upwards tilt at the eaves and verges. Traditionally there have been numerous different ways of achieving this in Devon, including rolls of straw fixed lengthwise. Today the use of boards or fillets is commonplace.

A board can be seated into the wall top projecting slightly beyond the outside face of the wall. Hardwood boards of this kind, sometimes with a simple moulding, are known from the 17th century. A board can be attached to the outside face of the wall, rising slightly above it. These can be unobtrusive, but should not be unnecessarily large and usually look best if painted the same colour as the walls of the house. Unless there are good reasons for changing the system you already have, it is advisable to ask your thatcher to repeat the system when rethatching, re-using hardwood boards which may be of historic interest.

Dormers

Before 1550 thatched roofs were relatively simple in design. Changes to the design of the roof and roofs built after 1550, when chimney stacks projected through the roof and the upper floors become increasingly smart and well-lit, made the work of the thatcher more complicated. Half dormers in Devon are common. These windows are partly in the wall but project above the line of the eaves. In early houses they are often enlargements of smaller windows, or new windows to make the first floor rooms better lit and ventilated. So long as the windows are not too tall, the thatch over half dormers can be 'eybrowed', thatched over in a sweep that rises above the eaves and joins the main pitch of the roof without any valleys. Taller half dormers, or full dormers (where the sill of the window is at the line of the eaves) project too far above the plane of the roof to be eybrowed, and are usually thatched separately. Roof dormers, windows where the sill is above the line of the eaves and the whole construction of the window is within the slope of the roof are virtually never found as original features in Devon traditional buildings.

Netting

The purpose of netting is to prevent birds damaging a roof by pulling out straw from the thatch. Bird damage is difficult to predict and may affect one thatched roof but not its next door neighbour. Bird damage is not often a serious problem in Devon and most thatchers prefer not to use netting, except on the ridge, unless an individual house is known to suffer very badly. Sometimes a thatcher may recommend netting at the eaves and verges to prevent damage if your house is in a very windy spot.

There are drawbacks to netting. It can slow down rainwater draining off the roof, encouraging the thatching material to decay, and leaves and other rubbish can get wedged below it. It may also encourage moss growth. Not all moss is damaging to a thatched roof but some types of moss may encourage damp and decay. If there is a fire, netting has to be removed by the fire officers before they can remove the thatch and it must be fitted to make this as easy and quick as possible.

Chimneys

Where a chimney projects wholly or partially through a roof, the junction with the thatching has to be made with especial care to prevent leaks. In the past slate drip ledges were sometimes fitted into the masonry joints of the chimney shaft (the shaft is the part of the chimney stack that rises above the roof) to throw water away from the junction. Lateral stacks were sometimes given a border or apron of small pegged slates.

Historically, the junction between the chimney shaft and the thatch was probably protected by a lime mortar fillet (see Drawing 1). Today thatchers may choose to use a cement fillet supported on nails driven into the chimney shaft. As the thatch decays and its surface drops, a gap will open up between it and the fillet, which should be checked every time the ridge is re-thatched and replaced if necessary. A modern alternative to the lime mortar or cement fillet is lead flashing. This can be dressed up into the chimney shaft. Lead was an expensive material, not locally produced. It is unlikely to have been used on thatched buildings before about 1900, but is readily available and commonly used today, although it can be difficult to dress lead into a masonry chimney shaft with irregular joints.

For fire prevention reasons it is vital that chimney shafts are kept in a good state of repair; see Section 8, Fire, below.

4. How to find a Thatcher

Thatching is highly-skilled work. The quality of the thatcher makes a major contribution, along with the quality of thatching materials, to the appearance and performance of a roof. If you want a traditional Devon thatch you will need to find a thatcher who can thatch with combed wheat reed using traditional detailing. Whatever kind of thatch is used, it is worth waiting for a good craftsman. A thatcher's work is affected by the weather and it not easy for him or her to be precise about when work on your house can begin.

Some thatchers have NVQ qualifications but there are no widely-held or accepted paper qualifications for thatching. The title 'master thatcher' traditionally means an experienced craftsman. However, the title is not regulated by any official body. This means that anyone can call themselves a 'master thatcher', whether or not they belong to a master thatchers' organisation and whether or not they are an experienced craftsman.

You can choose a good thatcher on recommendation from friends or neighbours, or you can approach the Devon and Cornwall Master Thatchers' Association (see address in Section 11 of this leaflet) who will supply you with a list of thatchers belonging to the Association who work in your area. Thatchers who are members of the DCMTA have had the quality of their thatching inspected and approved by existing members. Members work to minimum specifications, and you can obtain a copy of these from the association. Not all good thatchers working in Devon belong to the DCMTA. There is no obligation to join. Good thatchers who do not belong to the DCMTA often also work to minimum specifications.

It is worth taking time to make sure you have a good thatcher and that you and the thatcher know what you want. If you are unhappy with work carried out by a thatcher and he/she is a member of the DCMTA, you can ask the DCMTA to check the work and recommend a remedy.

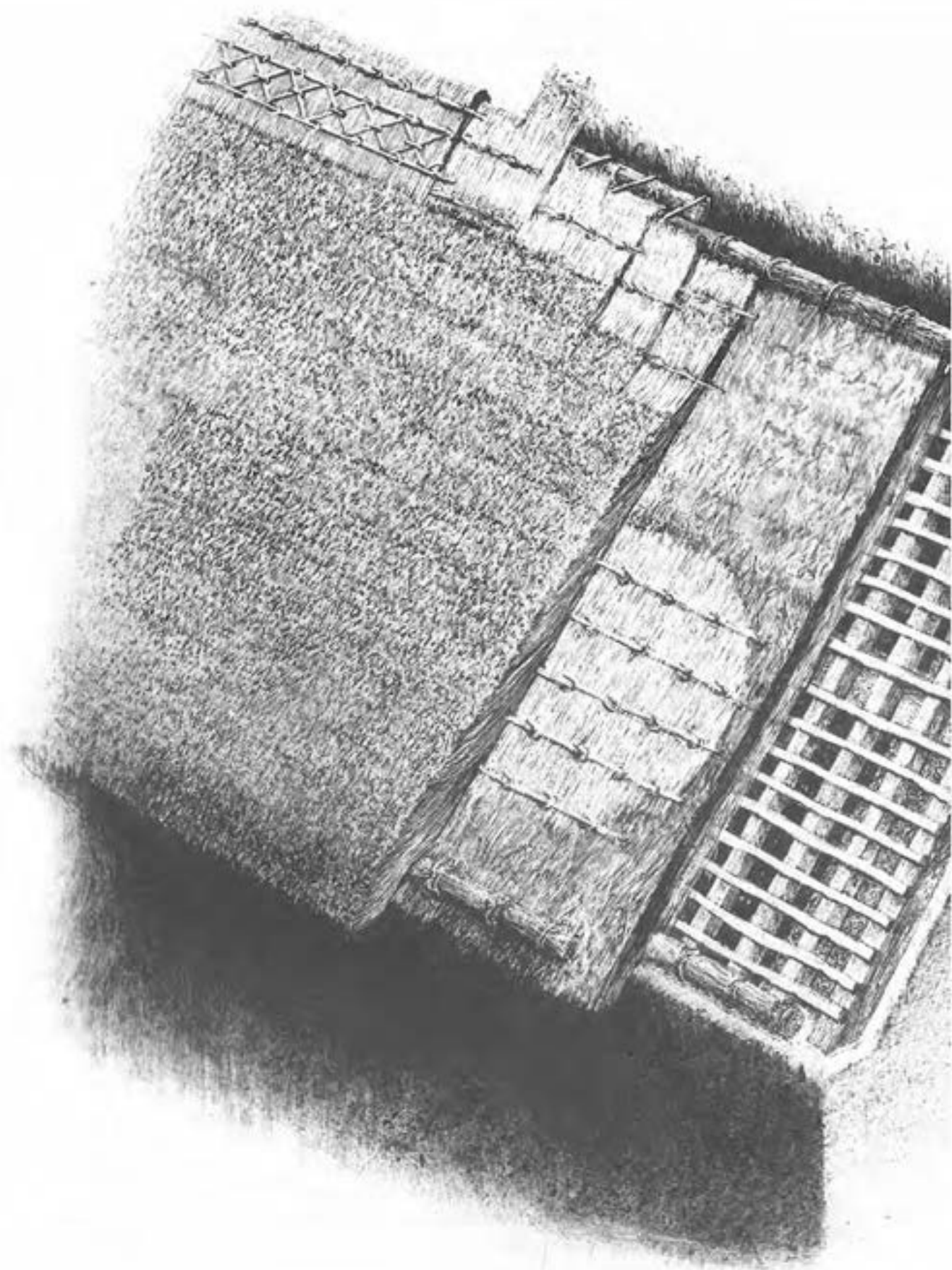
You can ask for estimates from several thatchers, bearing in mind that it is only fair that they should all be pricing up for the same work. This means that you should establish in advance what material you need a price for. If you have a Listed Building, the material you can use will depend on what is permitted by the Local Planning Authority. Your thatcher's opinion will also be valuable, especially if you wish to change the material, which may be contrary to the conservation policy of your District Council. A good thatcher usually has access to good quality material and, if that is not to hand, will usually make repairs until an adequate supply can be found. You should have a specification, e.g. minimum depth of thatch over the fixings, so that all the estimating thatchers are pricing up to the same standard, whether or not they are all members of the Master Thatchers Association.

5. The Archaeology of a Thatched Roof

The traditional technique of overcoating in Devon, rather than stripping, has had some very valuable consequences. It means that old phases of thatching often survive below the most recent overcoat. Old thatch, some of it dating back to as early as the 14th century, is an immensely interesting and precious archaeological resource. It is of international interest in the field of archaeobotany as crops grown over the last 600 years. It also contains evidence of old thatching techniques and methods.

Some roofs preserve thatch that pre-dates the introduction of chimneys and first floors into houses. This thatch is usually pre-1550 and is smoke-blackened from an open hearth fire on the floor in the open hall. Smoke-blackened thatch is a rare and very important survival. There are at least 180 known examples of it in Devon and undoubtedly more to be discovered. In some cases this early thatch was laid with an eye to decorative effect when seen from the underside, the neatly-laid straw, the ties round the rafters and the battens forming a simple repeat pattern. Parts of the roof that were not above the open hall may have thatch that is equally early and interesting, but not smoke-blackened.

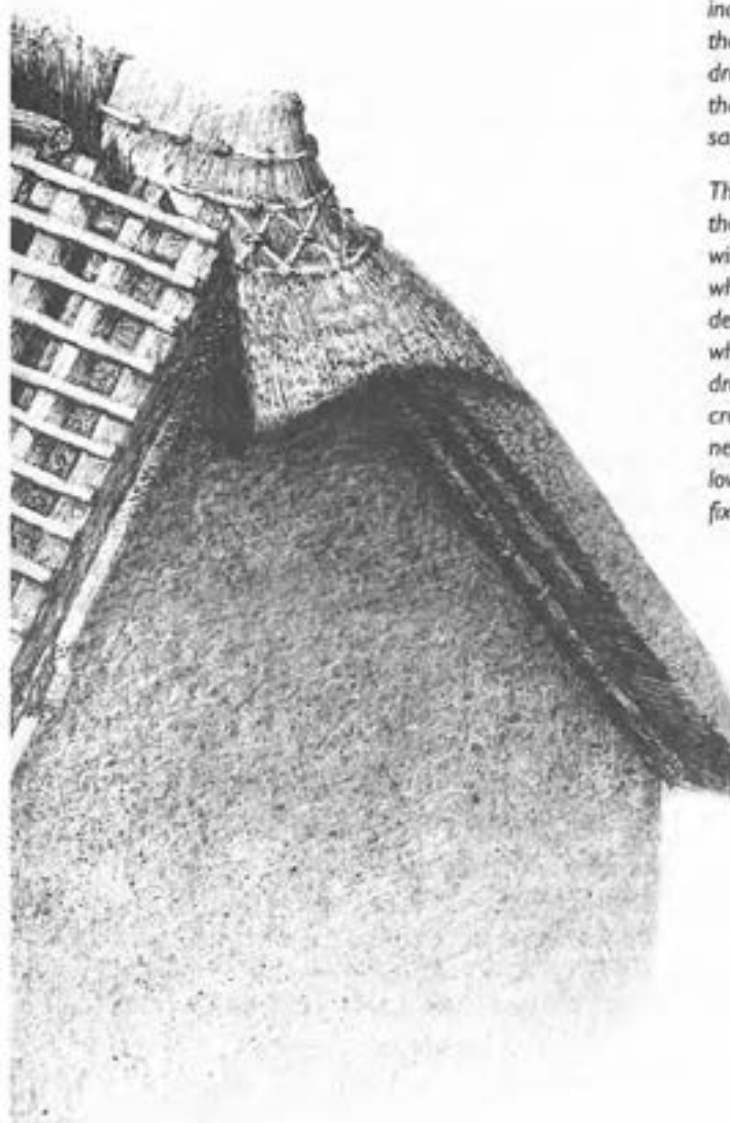
THATCH IN DEVON



Drawing 3 - The construction of a typical Devon roof and its thatch overcoating

A cutaway drawing showing the construction of a traditional Devon thatched roof and 'overcoating' in progress. Because thatching is a very individual craft no two thatched roofs are exactly alike and different thatchers use different techniques and details. For example, this drawing shows straw rolls at the eaves and verges to give a 'kick' to the thatch but most thatchers today use lengths of timber to achieve the same result.

The drawing shows how the roof is constructed with battens fixed to the upper sides of the rafters. The lowest and earliest layer of thatch will be attached to these battens which would not normally be exposed when thatch is being overcoated. The thatcher only strips off enough decayed thatch to reach a sufficiently sound base of old thatch to which the new coat can be fixed. This is shown on the left side of the drawing. An even foundation for this new coat of thatch has been created by patching a hollow, using sways and spars. The fixings of the new coat are all concealed within the successive layers of thatch. The lower ridge roll is tied onto the roof construction and a new ridge roll is fixed to the ridge roll below.



Overcoating has also helped to preserve historic roof timbers undisturbed. Roofs are often the least altered and earliest identifiable part of a house. Looking at the design of roof timbers and their details can reveal the original date of the house and its plan. Sometimes roofs can be dated very accurately by tree-ring dating. Pre-1550 roofs may contain fragile evidence of smoke louvers and other details which should be left undisturbed. Overcoating, rather than stripping, does exactly this.

Old thatch, whether pre-1550 or later, also contains information, not found elsewhere, about cereal crops - and other plants mixed with the straw - growing in Devon in the medieval and later periods. It can be analysed by archaeo-botanists who may be able to use it to help to date the house as well as to understand local farming practice in previous centuries.

6. Changes to Thatched Buildings and Listed Building Consent

If your house is listed and you are proposing to alter or extend it you will need Listed Building Consent and you may need Planning Permission. Replacing thatch with any other roofing material requires Listed Building Consent. Any alterations that involve the thatch - for example a new roof dormer or a thatched extension - also require Listed Building Consent and must be carefully thought out. It is sensible for a thatcher to comment on any plans to make sure that that any new design is suitable for thatch. It is not unknown for a thatcher to arrive on site to find that he is expected to cover the roof of a design that is unthatchable. A pamphlet available from the Society for the Protection of Ancient Buildings (SPAB) gives useful advice to architects and surveyors about the requirements for new design for thatch, including reference to the required fire-proofing, which is more exacting than it is for existing roofs.

There are occasions where roof timbers need repair, and it may be your thatcher who will notice this. It is very important that repairs are carried out carefully, losing as little old timber or other features, as possible. Each case is different, but a careful mend can usually be designed to help preserve as much old thatch and historic timber as possible. If your house is listed and you need to replace old roof timbers you are likely to need Listed Building Consent. The local conservation officer will be able to advise you and your thatcher.

Thatch dating from the open hall phase of a house is of major historic importance. Every care should be taken to see that it is not damaged. If your house is Listed, Listed Building Consent is needed if you are proposing to strip smoke-blackened thatch.

Most Local Planning Authorities now require Listed Building Consent for a change of thatching material, as recommended by English Heritage in a guidance note on thatching and listed buildings, issued in 2000 (see Section 10). This can be obtained free of charge from English Heritage. If your building is listed and you are planning to change the thatching material on your roof, either from combed wheat reed to water reed, or from water reed to combed wheat reed, you should contact your Local Planning Authority. You may need to apply for Listed Building Consent for the change. The Planning Authority may refuse consent for replacing combed wheat reed with water reed unless you can make a good case for the change you are proposing.

If you are proposing to change the external appearance of your thatch by using a different type of ridge, you may need Listed Building Consent for the change and should contact your Local Planning Authority.

7. How Long Does Thatch Last?

In the past, when there was more variety in thatching, there were 'rougher' thatches for some buildings than others. Thatch on a rick of wheat, or a haystack might only need to last a season. A cheap, thin thatch might be chosen for farmbuildings which the farmer might thatch himself. A type of thatching where the sways of each course are exposed might be chosen for a house or cottage. When thatchers worked on farms, it was practical to extend the lifespan of a farmhouse or farm cottage roof by frequent patching. It was possible to delay applying any attention to a roof until it sprang a leak, because there was likely to be someone who could thatch on hand. Today, most people want a thatch that is long-lasting and like to compare materials and methods for durability, as well as considering what type of thatch suits their type of house best. As a general rule, the owners of thatched houses today pay more attention to the appearance of their thatch than their farming predecessors and have to plan ahead for a visit from the thatcher. Nevertheless, patching is still a practical method of extending the lifespan of a thatched roof. When the thatcher comes to re-ridge it is sensible to ask whether any part of the roof needs a patch at the same time. Until it weathers, the colour of the patch will be lighter, but this is also the case for a new ridge.

The lifespan of thatch depends on many variables. The local climate (and there are huge differences in annual rainfall and temperature in different parts of Devon), the location of your building (overhanging trees and proximity to water can both speed up decay), the pitch and overall design of your roof, the quality of materials, the skill of the thatcher and the quality of his or her work, your own care in seeing that the thatch is not neglected (e.g. regular re-ridging), all influence weathering and no one building is exactly the same as another. The techniques used in growing straw for thatch contribute to quality and a good thatcher will make sure the material he uses is the best that can be obtained.

General figures for lifespan are often quoted but they often represent either the best case of longevity known in the whole country, or the worst. The lifespan of thatch, particularly the question of whether water reed lasts longer than combed straw, is a contentious subject and there has been a lot of argument about it. Many people, including thatchers, believe that water reed lasts longer, but no-one has collected figures to prove this in Devon and, as explained above, every roof is different. Some thatchers prefer to work with combed wheat reed, others prefer water reed. Devon, with a high rainfall and a warm climate is not, in general, so kind to thatch as drier regions. Neither combed wheat reed nor water reed lasts as long in the county as it does in drier counties. Ridges are vulnerable to decay and will need checking and probably re-thatching every six to twelve years. A thatched roof in Devon, properly looked after (regularly re-ridged and occasionally patched), will probably last about 20-30 years. Some roofs will last longer than this (there are examples of combed wheat reed lasting over 50 years in Devon), and most thatchers would be disappointed and concerned if a well-thatched roof, using good materials lasted less than 15 years. You may read in publications that some thatch lasts for 60 years, or even longer. There are roofs that have lasted this long in other counties, but you should not expect such a long life out of a thatched roof in Devon.

Reliable records for your own building are probably the best guide to the lifespan you can expect for thatch. You can always do some local research and ask any close neighbours about how long their thatch has lasted. If you are buying a thatched house you should always ask the previous owner for information about when it was last thatched and re-ridged. You should keep records of any work done to the thatch while you are in the house so you can pass this on when the house is sold. This should include the thatcher you used and the type of materials on the roof. It is worth noting down the variety of wheat used for combed straw thatch or the country of origin of water reed, along with when each pitch of the roof was thatched and when and where any patching has taken place.

8. Fire Precautions

Between twelve and fifteen serious thatch fires occur in Devon every year. Fires in thatch take hold quickly, are extremely difficult to extinguish and are usually very destructive.

- **The risk of thatch fire is less than it was once thought to be, but owners of thatched buildings should avoid complacency.**
- **Sensible precautions can and should be taken. Many of them are simple, cheap and easy to live with and the key to living under thatch without undue anxiety about fire.**
- **The Devon Fire and Rescue Service offers comprehensive advice on fire safety measures, free of charge. If nothing else, contact the fire service and confirm that your property is recorded as thatched on their mobilising system.**

All owners/occupiers of thatched houses should be prepared for providing the fire service with the information they need, should an emergency arise. This will be the current formally recognised address, a six figure grid reference and clear instructions for the best way for a large vehicle to get to the building. Fire fighters should also be informed of the nearest supplies of water for fire fighting. This information should be in a prominent place, close to the phone for anyone who may be looking after the house. It should also be given to neighbours, along with a key, in case of fire when an owner is away.

Most thatch fires start because of a problem with the chimney or fireplace. Problems include design, condition and use. Sparks from a chimney or any other source landing on the thatch are no longer thought to be a very common cause of fire, but the top of the chimney or the chimney pot needs to be sufficiently distant from the thatch to allow free airspace for any burning material from the fire to be blown away. Spark arrestors, which were once thought a sensible form of fire protection and were insisted on by some insurance companies, are now generally regarded as more of a hazard than a help, since it is difficult to keep them well-maintained and without regular maintenance they may clog up and become a hazard. The condition of the chimney shaft, especially where it abuts the thatch, is critical and should be kept in good repair.

The thatcher is the only person likely to see the 'buried' section of the stack in the thatch and should be asked to check the soundness of the construction (which may be masonry, brick, or cob) when rethatching. If the building is listed and either the inspection or remedy (or both) might cause damage to roof timbers, the owner should ask the advice of the conservation officer as well as the local Fire Safety Officer.

Thatch fires have to be dealt with in a very specialised way by fire fighters. Thatch is designed to throw off water, and this means that the most effective approach is not simply to hose down the thatch, but to pull it off beyond the fire. An owner should ask their thatcher to fit wire netting in a way acceptable to the fire service, making sure that it can easily be removed and causes no delays if there should be a fire and the thatch has to be pulled off the roof.

The high temperatures that modern owners expect from woodburners and fires has meant that Fire Safety Officers now recommend a vertical heat barrier between the chimney shaft and the thatch, within the thatch, to avoid the transmission of heat from the chimneyshaft to the thatch, causing it to become dry, smoulder and eventually burn. These are best fitted when a roof is being rethatched. Flue linings and wood-burning stoves, if incorrectly fitted (which they often are) or defective can cause fire. Chimneys should be regularly and frequently swept to clear away combustible soot crust and bird's-nests. This may be as often as four times in a burning season, depending on the chimney and the fuel. A competent sweep should be able to advise. If wood is used it should be seasoned and logs ready for burning should be stored where they are not at risk from catching fire from a spark. Any proposed

change to the way a fireplace is used or the way a room with a fire is ventilated should be thought through in terms of any risks it might bring to the thatch and owners should seek the advice of the Fire Safety Officer. **Free advice from the local Fire Safety Officer is an under-used service. There is contact address at the end of this leaflet.**

Electrical installations in or near thatch are a common cause of fire. Thatch insurance companies have good reasons for insisting on a high standard of safety in electrical installations in thatched houses. Most require a smoke alarm under the ridge of the thatch, connected to alarm systems in the rest of the house. If they do not, it is sensible for owners to have one fitted anyway and ensure that it is well-maintained.

The use of electrical circuits in or near thatch should be kept to a minimum and, where possible, electrical installations should be designed in conjunction with the advice of Fire Safety Officers. Wiring in or near thatch should be run in trunking or conduits, and lights in roof spaces should be enclosed to protect thatch from heat or electrical faults. No wiring should be run under the eaves as there is a risk that it could be cut accidentally by thatchers. Any contractors, particularly plumbers or painters, who may use equipment or processes that produce heat and are working under or near thatch, should be asked to think of alternative ways of working and produce a written specification to the owner of what they intend to do and a statement of their insurance position. If in doubt, owners can always ask the advice of local Fire Safety Officer or Building Control Officer.

There can be conflicts of interest between the needs of fire safety and thatch conservation. Fire resistant board or impermeable membranes introduced under the thatch can reduce ventilation and may reduce the life of thatch, unless carefully-designed and kept well back from the underside of the straw or water reed. Opportunities to insert boarding or membranes exist only if thatch is stripped back to the roof timbers, which is something to be resisted if the thatching material is of some age. Soaking thatch with fire retardants before use is known to have been used in the 1930s, and probably long before. There are modern versions of the system. English Heritage's guidance note states that the balance of evidence 'seems to be against modifying the basic behaviour of the materials, which could adversely affect the roof's performance'.

Some roof spaces are divided up vertically by what can be old and interesting partitions. It makes good sense to have roof hatch access to every compartment of the roof space from the floor below, and big enough for a fire fighter with equipment to get through without a struggle. Good access to all parts of the roof space, which should be kept uncluttered, also allows both thatcher and owner to look at the underside of the roof, check the condition of the thatch and timbers from below and consider the interest of roof timbers and their details. If timbers in a listed building are in poor condition and need repair or replacement the Local Planning Authority should be asked to advise. In listed buildings it is usually less damaging to the historic fabric to make ceiling hatches than trying to cut access through the vertical partitions in the roofspace, but there are exceptions and the advice of the Conservation Officer should be taken.

9. Thatch on New Buildings

There is only a small number of new thatched houses in Devon but no reason why there should not be more. This would extend the local tradition on to new buildings in the 21st century and provide energy-efficient roofing that fits into the local landscape. A significant number of new thatched houses in Dorset show that obstacles to thatch as a modern roofing material on both detached houses and groups of houses with thatch and slate roofs, can be overcome. In addition to the SPAB pamphlet, there is a useful publication on new thatched houses, 'The Dorset Model' which gives advice on construction (see Section 10).

10. Further Reading

- Brockett, P. and Wright, A., *The Care and Repair of Thatched Roofs. Technical Pamphlet 10. Society for the Protection of Ancient Buildings and Council for Small Industries in Rural England (May 1986)*
- Cox, J. & Letts, J., *Thatching in England 1940-1990: English Heritage Research Transactions, Vol 6 (English Heritage 1990)*
- Cox, J. & Thorp, J. R. L., *Devon Thatch (Devon Books, 2001)*
- Devon Building Control Group *Devon Thatch Model Guidance. Available from Devon District Council Building Control Departments*
- English Heritage, *Thatch and Thatching: a guidance note (2000). Available from : Customer Services Dept, PO Box 569, Swindon SN2 2YP. Tel: 0870 333 1181. Fax 01793 414926. E-mail: customers@english-heritage.org.uk*
- Letts, J., *Smoke Blackened Thatch (English Heritage/University of Reading, f.p. 1999, 2nd edn. 2000)*
- Moir, J. & Letts, J., *Thatching in England 1790-1940: English Heritage Research Transactions, Vol 5 (English Heritage 1990)*
- West Dorset District Council, *'The Dorset Model': Thatched Buildings, New Properties and Extensions. Local Authority Building Control, Buildings Regulations, 1991 (West Dorset District Council, October 1998, WD/2797).*

11. Useful Addresses

The Devon and Cornwall
Master Thatchers' Association
Mrs E Wakley (Secretary)
Higher Whatley,
Otterford,
Chard,
Somerset TA20 3QL
tel: 01460 234477

The Historic Buildings
Advisers,
Devon County Council,
County Hall,
Lucombe House,
Topsham Road,
Exeter EX2 4QW
tel: 01392 382261

English Heritage
South West Region
29 Queen Square
BRISTOL BS1 4ND
tel: 0117 975 0700

Devon Fire & Rescue Service,
Headquarters,
The Knowle,
Clyst St George,
Exeter EX3 0NW
tel: 01392 872200

The Society for the Protection
of Ancient Buildings (SPAB)
37 Spital Square,
London E1 6DY
tel: 020 7377 1644

The Conservation of Historic
Thatch Committee (COHT),
Jack Lewis, Master Thatcher,
The Red Barn,
South Petherton,
Somerset TA13 5ET

Devon District Councils and National Parks

Dartmoor National Park
Authority
Parke
Haytor Road
Bovey Tracey
NEWTON ABBOT
Devon TQ13 9JQ
tel: 01626 832093

East Devon District Council
Council Offices
Knowle
SIDMOUTH
Devon EX10 8HL
tel: 01395 516551

Exeter City Council
Civic Centre
EXETER
Devon EX1 1JN
tel: 01392 277888

Exmoor National Park
Authority
Exmoor House
DULVERTON
Somerset TA22 9HL
tel: 01398 323665

Mid Devon District Council
Ailsa House
Tidcombe Lane
TIVERTON
Devon EX16 4DZ
tel: 01884 255255

North Devon District Council
The Museum of
Barnstaple and North
Devon
The Square
BARNSTAPLE
Devon EX32 8LN
tel: 01271 346747

South Hams District Council
Follaton House
Plymouth Road
TOTNES
Devon TQ9 5NE
tel: 01803 861234

Teignbridge District Council
Forde House
NEWTON ABBOT
Devon TQ12 4XT
tel: 01626 361101

Torrige District Council
Riverbank House
BIDEFORD
Devon EX39 2QG
tel: 01237 428700

West Devon Borough Council
Kilworthy Park
TAVISTOCK
Devon PL19 0BX
tel: 01822 813600



DEVON COUNTY COUNCIL

Devon County Council, County Hall,
Topsham Road, Exeter, EX2 4QW

www.devon.gov.uk