

Traditional straw thatching in times of shortage

The 2020 harvest of thatching straw was poor, but there are ways of coping with short-term shortages that delay the need for extensive re-thatching and support local growers.



Rick coating in Muchelney, Somerset, in combed wheat reed, a traditional way of extending the life of the thatch coat

Sustainable, picturesque, and a good insulator: thatch is a vernacular material that is much valued and admired. However, the availability of thatching straw is dependent on good weather for planting and harvesting, and on continued demand to make it a financially viable crop. The 2020 harvest was poor due to difficult weather conditions, and this is likely to lead to shortages of thatching straw during 2021. However, there are ways of coping with short-term shortages that delay the need for extensive re-thatching, sustain the significance of historic buildings and support local straw growers.

Traditional thatch and significance

Although many plants have been used for thatching, by medieval times cultivated cereal straw, particularly wheat and to a lesser degree rye, was the predominant thatching material in lowland areas. In the south-west, the straw was combed to remove the grain and leaf, keeping straw undamaged to produce wheat ‘reed’. Across much of the rest of lowland England straw was flailed, leaving the straw semi-crushed to produce threshed straw (nowadays known as ‘long straw’), the predominant material. In the Norfolk Broads (following the collapse of peat extraction for fuel) and some estuarine or fenland areas, reed beds were managed to produce water reed for thatching. In some coastal, moorland, heath and upland areas of the UK, the use of wild plants such as marram grass, sedge, bulrush, bracken,

heather and gorse persisted much longer than in lowland areas, but has almost now ceased.^{1,2}

The layers of historic thatch preserved on many thatched roofs reflect these regional variations, as well as temporal changes as agricultural practices developed and the craft of thatching adapted in response. Many contain rare and irreplaceable archaeobotanical remains that make a major contribution to the archaeological and historic values of the building.³ The appearance of thatch, how it is ridged, dressed and finished, contribute to the architectural and aesthetic values of the building, which in turn contribute to the quintessential character of rural areas, creating a strong sense of place.

But there is more to significance than simply appearance: there is also the question of authenticity. Some people argue that water reed is an acceptable alternative to combed wheat reed (CWR) because it can be made to look similar – at least at first glance. But as the inspector in one recent appeal opined: ‘one of the important purposes of listed building protection is to help distinguish the genuine article from imitation.’⁴

The current situation

Growing thatching straw is a challenging business. Crop quality depends on good weather throughout germination, cultivation and harvest. Harvesting and processing are tough work, relying on increasingly hard-to-source casual labour and, in many cases, on ancient machinery (some

¹ Moir, J, Letts, J (1999) *English Heritage Research Transactions, Volume 5, Thatch: Thatching in England 1790 to 1940*, London, James and James

² Cox, J, Letts, J (2000) *English Heritage Research Transactions, Volume 5, Thatch: Thatching in England 1940 to 1994*, London, James and James

³ Letts, J (1999) *Smoke-Blackened Thatch: A unique source of medieval plant remains from southern England*, London, English Heritage and The University of Reading

⁴ Appeal ref: APP/B9506/E/08/2092965, *The Thatched Cottage*, Chapel Lane, East Boldre, Brockenhurst SO42 7WP



Wheat straw drying
in stooks prior to
combing

Combing wheat reed
in the field

of which is more than 100 years old). And all this in a market which is seeing a decline in demand as owners switch to alternative materials: every straw roof changed to water reed is a nail in the coffin of traditional straw thatching.

Throughout history, there have always been periodic bad harvests. The autumn of 2019 was very wet in most of England and Wales. Many farmers were unable to plant their crop as the ground was too wet. Some were only able to plant a small proportion of their normal acreage. Germination rates were poor due to waterlogged soil.

Spring 2020 brought drought conditions, resulting in shorter stems with some secondary stems (tillers) being sacrificed by the stressed plants, and therefore remaining very short. Variation in the height of the straw caused more wastage during processing. The weather has created a perfect storm of problems for thatching straw growers.

Historic England has been investigating the problems facing the thatching industry as a result of the poor harvest through telephone conversations with growers and thatchers, and has published guidance on dealing with the shortage.⁵ Most growers have reported that, apart from being short, the quality of this year's thatching material is otherwise good; the quantity, however, is significantly down – generally by between 20 and 80 per cent (although a few growers have been exceptionally lucky and have had no reduction at all, and some even have surplus straw from the 2019 harvest). Most, however, are limiting supply to just their regular customers. It is apparent that those thatchers who have close working relationships with growers will fare best, as will those who grow their own straw. They have forewarning of poorer harvests (so can plan accordingly) and priority access to the crop.

Poor harvests are part of the cycle of agriculture, and the thatching industry has always been adept at coping with short-term shortages. Growers and thatchers alike have spoken of the need for flexible organisation of their workloads; bringing forward smaller jobs, such as patching and ridging, and any water-reed jobs, delays the need for large amounts of straw for as long as possible. They are also conscious of some house owners' desire for 'neat' thatch and find that repairs are less popular than in the past. Flexible timing of jobs and accepting patching as a normal practice requires the cooperation of house owners, and emphasises the need for conversations with thatchers to be made well in advance of work taking place.

Many in the industry are dismayed at the lack of enforcement by planning authorities when thatching materials are changed without consent, as they consider this undermines the thatching straw industry by reducing demand for their crop and skills.

Sustaining significance

When straw is in short supply, there may be understandable pressure on thatchers to use water reed. But recoating a long straw or CWR roof with water reed can harm the significance of a listed building (as can replacing long straw with CWR), as has been confirmed by numerous appeal decisions. As explained above, significance does not just derive from appearance. There is something intrinsically valuable about the use of traditional craft skills and authentic materials, a view that led the inspector in one appeal case to conclude that 'because the proposed thatch would not be the genuine article, the authenticity and integrity of the asset, and thus its significance, would be unacceptably eroded.'⁶ A comment in another

⁵ <https://historicengland.org.uk/advice/technical-advice/buildings/thatching-advice/>

⁶ Appeal ref: APP/J0405/E/14/2213476, Mulberry Cottage, 25 Spring Lane, Great Horwood, Buckinghamshire MK17 0QP



Patching thatch in discreet weathered areas will delay the need for complete spar coating for this Somerset house for several years.

case was that ‘Beyond the apparent impression that the proposed material [water reed] offers an imitation of the appearance of traditional CWR, its use in this case would be no more than a superficial replica of the authentic product. This would be harmful to both the special interest and significance of the listed building.’⁷

To avoid such harm, Historic England recommends that, in lean years, alternatives to full recoating are considered. In the first instance, as a number of thatchers to whom we spoke explained, patching those areas that experience the most wear can extend the life of the coat. Patching is a cost-effective way of maintaining a thatched roof, uses much less material than spar coating, and can usually be done from a ladder or tower scaffold, avoiding the cost of full scaffolding. In the past, patching was the normal way of maintaining thatch, re-coating only being done when the roof could no longer be kept watertight through localised repair.

For larger areas of fairly uniform wear, some thatchers advocate rick coating. This is a thin coat of straw with surface fixings (also referred to as a stack-coat or step-coat, and derived from the practice of protecting straw ricks with a thin coat of thatch following harvest and before threshing). A very thin coat might last around three years, while a thicker coat could last up to 10 years.

As a last resort, thatch can be protected using tarpaulins or strong plastic sheeting. This is probably the best way to deal with serious extensive leakage when structural timbers and plaster ceilings are at risk of damage by water penetration. It is best fitted under wire netting to ensure that it is held securely at the eaves and verges, and to reduce flapping in the wind.

Nonetheless, applications for listed building consent for use of water reed in place of CWR or long straw may increase this year. We

recommend that planning authorities consider whether a change of material is clearly and convincingly justified, as required by the National Planning Policy Framework, taking into account those issues of significance and authenticity outlined above. The Historic England online guidance includes a sequence of questions to guide decision-makers about possible alternatives to recoating straw thatch with water reed. This will help conservation officers and planners to seek clarity from applicants, and to make robust, defensible comments on applications, while resisting any unjustified harm.

The future

2021 will bring a new harvest of thatching straw. Early reports are that the new crop has been drilled successfully and is germinating well, but clearly it will be some time before we know if it has been successful. Should yields be low, our guidance will be updated to take this into account.

Traditional straw-thatched buildings are of enormous value, not only to our historic environment, but also to our landscapes, the tourism industry, agricultural and rural craft traditions, as an archaeobotanical resource, and as a sustainable building material. We should value the contribution that they make, and appreciate the challenges that farmers face in continuing to grow this high-risk crop.

The listing building consent regime is a powerful tool for sustaining demand for thatching straw, but simply maintaining current levels of demand is not enough: there is urgent need for research to better understand and tackle the challenges faced by straw growers. Historic England is already funding straw-growing trials in East Anglia⁸ and plans to undertake further research into thatching material production to help support the thatching industry.

⁷ Appeal ref: APP/J9497/Y/17/3177128, ‘Dymonds’, Dunsford, Devon EX6 7DA

⁸ <https://historicengland.org.uk/research/current/conservation-research/sourcing-traditional-materials/#Section4Text>

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