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INTRODUCTORY GUIDE TO THATCHING

Text by
K. LONG

Drawings by
R. OELOFSEN

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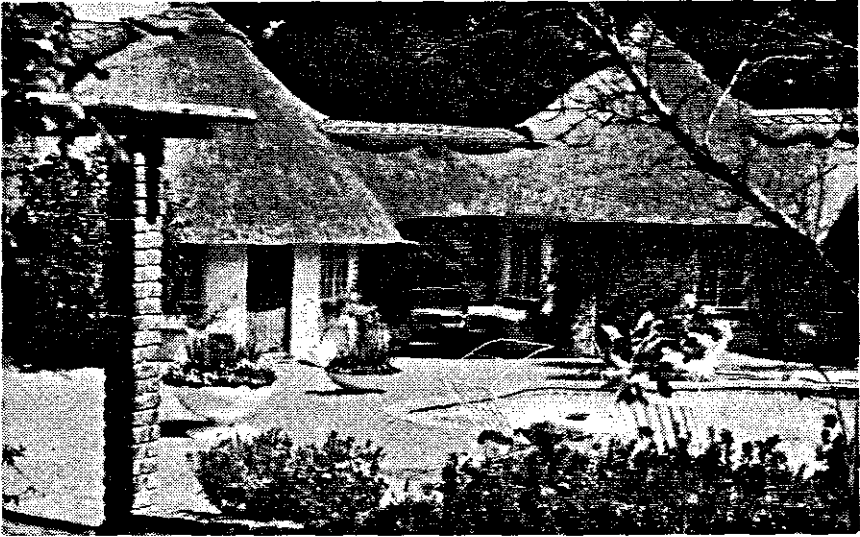
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NOTE:

Numerals in the text refer to the numbered illustrations.



*'How very little since things were made,
Things have altered in the building trade'*

Rudyard Kipling

INTRODUCTION

Thatch has been used as a roofing material from the earliest times. The basic tools of the thatcher's craft have not changed over hundreds of years. A marginal sketch on a Court roll of 1364, for the Manor of Crowle, in Lincolnshire, England depicts a thatcher's 'legget' very similar to those in use today; which goes to show that Kipling was right about thatch, at all events!

Thatching is a craft that is traditionally handed down from father to son. It is not normally taught in other ways. So there is relatively little documented information. In South Africa there is evidence that many home owners and potential home owners would welcome such information.

This guide has been compiled partly from other published information but mainly from discussions with craftsmen in South Africa.

The guide describes the basic techniques used in thatching. It identifies certain problems that are commonly encountered and suggests means for overcoming them.

Since one of the first questions that is usually asked about thatch is about safety in fire, part of the guide is devoted to this aspect.

MATERIALS

Thatching makes use of materials that are naturally available — grass or reed. In South Africa certain indigenous grasses are normally used. The most commonly used grasses are listed below with their main geographical locations:

South African grasses used for thatching

- *Hyparrhenia hirta* — Natal Berg area, in abundance
- *Hyperphilia dissoluta* northern and eastern Transvaal
- *Thamnochortus insignis* (commonly known as Dekriet, or Cape Thatching Reed) — Albertinia and Riversdal districts of the Cape
- *Hyparrhenia dregeana* — Natal midlands and Berg area
- *Hyparrhenia filipendula* — Zululand coastal regions
- *Thamnochortus erectus* and *Thamnochortus specigerus* (Dekriet) — Cape coastal regions
- *Chondropetalum tectorum* — Cape area, widespread
- *Phragmites australis* (Norfolk reed, known locally as umHlanga) — widespread in South Africa

Although it is common in South Africa, so far as is known, Norfolk reed has not been widely used for thatching in this country. It is commonly used in Britain.

The type of grass known as Tamboekie is often used by Africans for thatching. But there are coarse varieties of this grass, with stalk thicknesses greater than 4 mm, that are not considered suitable for thatching.

Natal thatching grass has a finer texture than the Transvaal grass when laid and is often preferred for this reason.

The stalks of thatching grass are, normally, hollow and about 3 mm thick³. Dekriet stalks, however, are solid and about 3 -4 mm thick. The quality of the



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material improves with cultivation and regular cutting. Some thatchers consider that the quality of material that is cut by hand is superior to that of material cut by mechanical means. Hand cutting will produce about 50 to 100 bundles a day¹. A mechanical cutter and binder will process about 6 000 bundles a day^{4 5 6}.



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Thatching grass is usually cut in winter from March to August after the first hard frost has killed the leaves. At the end of the cutting season the remaining stubble and undergrowth is removed, either by grazing or by burning.

THATCHING REED

Thatching reed is a species of the *Restionaceae* (reed) family which is widely distributed in the Albertinia and Riversdal regions. This species, known as *Thamnochortus insignis*, is unisexual and there are female as well as male plants. The clumps of reed have a diameter of 300 mm and more, and grow to a height of 2,5 m.

The sandy area, better known as the dunes, which stretches between the Gouritz River east of Albertinia and the Duivenhoks River west of Riversdal, from the coast in the south to the sweet dunes near the national road that links Mossel Bay with Cape Town, is thatching reed territory *par excellence*.

The thatching reed that grows mainly in the sour dunes and is consequently less lush, is found in an area of about 2 000 km². The most lush reed, however, grows in the sweet dunes that lie below the chalk ridges as well as in the white sand in front of the dunes.



Typical landscape of the chalk ridges and low lying plains where the most lush reed grows. These cut reed clumps recover so that they can be harvested again after three years.

Various species of the Proteaceae family that grow mainly on the chalky ridges and sandy soil, are also found in this area; amongst others *Protea obtusifolia*, *P. susanna* and *P. repens*; the genus *Leucospermum* *muirii* and *L. cuneiforme* as well as different species of leucadendrons, and the well known heath, *Erica bauera*.

As soon as the thatching reed forms seed and ripens, it is cut with sickles or reed cutting machines and spread out to change to a rich gold colour.

Soon after the first rains the tufts start growing again and recover to such an extent that they can be harvested again after three years.

Thatching reed is also put to other uses besides covering roofs: farmers in the vicinity pack a layer of reed covered by a layer of soil when they make roads in the dunes; the attractive seed is also an asset in any dry flower arrangement.



Thatching reed is still cut with sickles and a leather glove is usually worn to protect the hand from the sharp stubble. The term 'cut' is actually misleading because the reed is in fact broken over the sickle's blade. During the past eight years the reed has also been cut with a portable reed cutting machine ('Brushcutter') with a rotary blade. However, this demands good concentration, otherwise there may be accidents.



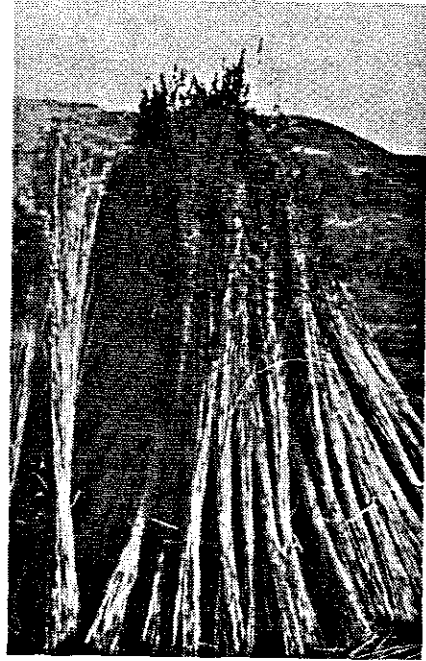
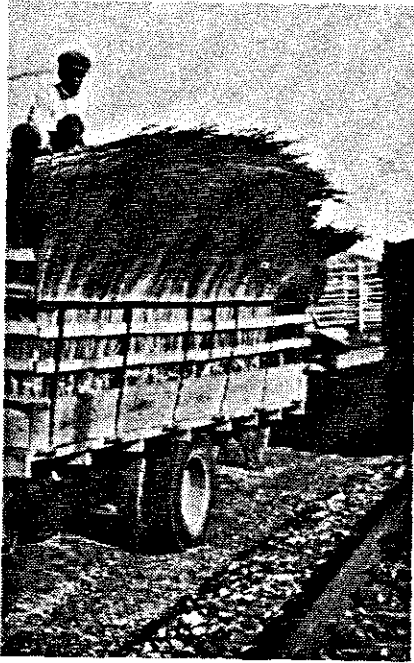
Above: the reed is spread out until it is a rich golden colour before it is bound.

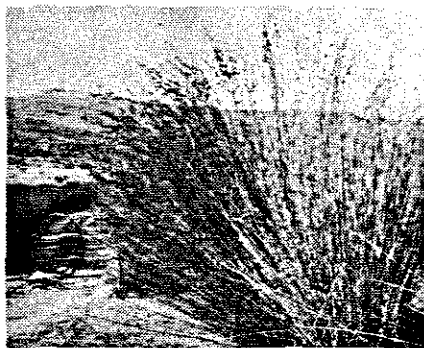


Left: the thatching reed is tied in 'bottle thickness' bunches of about 7.5 cm, about 45 cm from the ground. An experienced worker measures this by eye and uses his hand and two fingers to confirm his estimate. Today string is used to tie the bundles, but previously 'matting string' or matting stuff (*Cyperus textilis*) which grows along the river, was used to tie the bundles.

Opposite, top left: heavy duty trucks are loaded with 3 500 bundles of thatching reed. A good assistant throws six bundles at a time to the loader.

Opposite, bottom picture: a 'dolly', as the 39 ton DZ type bolster waggons (trucks) are known, is loaded with 10 000 bundles of thatching reed.





Above: a good stand of reed that is cut in the ripe stage from March to August.



Right: a particularly lush clump of reed (2,5 m) on the farm Hornstras of Mr and Mrs G. Horn, 21 km from Albertinia.

PREPARATION

Cleaning and bundling

After cutting and loosely bundling, each bundle is shaken vigorously to dislodge all loose material². The bundles are then cleaned by passing a sickle through them⁷, working towards the butt. This removes the remaining leaf growth from the lower two thirds of the stalks.

The grass is then remade into bundles about 1 to 1,5 m long and between 75 and 100 mm in diameter. These bundles are each tied with a thong of twisted grass or with twine^{7 8 9} and packed in heaps (round pyramids) about 2 m high and 2,5 to 3 m in diameter at the base. (Page 7 top right.)



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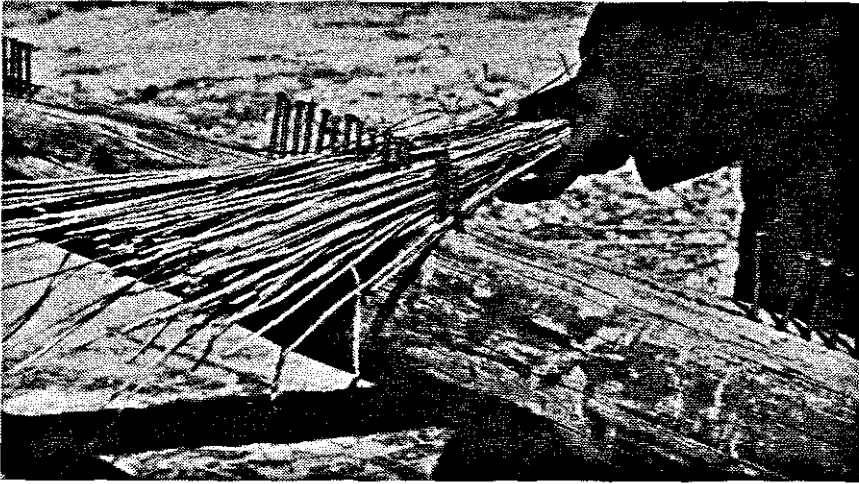


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Combing

When the thatch is to be used for the 'spreilaag', immediately above the thatching battens, where the underside will often be exposed within a room, the material should be combed to ensure that the stalks are perfectly clean. A comb is made by driving a number of 75 x 3,5 mm diameter round wire nails into a 300 mm length of horizontal pole. The nails are spaced at about 12 mm in a straight line¹⁰.

The bundles of grass are placed across the top of the comb and pressed down so that the stalks are separated by the nails. The bundle is then pulled through the comb from the top to the butt end¹⁰.

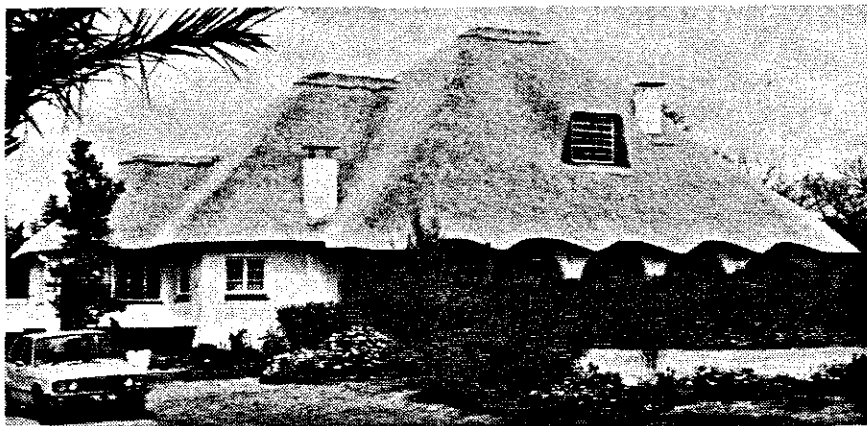


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After combing, the bundles should be stacked clear of the ground and under cover. They are normally baled for transportation in batches of 10 - 20, depending on the size of the bundles.

DESIGN

A thatched roof should have a minimum pitch of 45°. Advantage may be taken of this steep pitch to provide accommodation in the roof space.



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As a general guide, the configuration of a thatched roof should be as simple as possible¹¹. The inherent ability of thatch to adapt to free curved shapes may well influence designers, at the planning stage, to develop a less formal plan than would otherwise evolve.

Flashings are always potential problem areas; therefore, features that penetrate or interrupt the roof plane should be avoided if possible. Chimney stacks should be designed to penetrate the roof plane at the ridge, thus avoiding the necessity of secret gutters. Soil vent pipes are best located on external walls so that they penetrate the thatch near the eaves line.

Rain water must not be allowed to discharge from a high level roof onto a thatched roof at a lower level.

Roof structure

Thatch, 150 mm thick, has a mass of about 20 - 25 kg/m². The roof framing normally consists of eucalyptus poles that have been chemically treated. The organic solvent types of preservative, such as Pentachlorophenol or Tributyltin oxide are suitable for such treatment. The poles may be spaced up to 900 mm¹² apart. But Building Societies in South Africa will usually in-



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sist on a maximum spacing of 700 mm and a minimum pole diameter of 100 mm.

All the roof timbers must be securely jointed and spiked or bolted together. Many Building Societies also stipulate that joints should be additionally secured with galvanized, mild steel straps.

The most common form of roof to which thatch is applied is the rondavel, and this roof form can be constructed up to 10 m in diameter. In this form of roof the rafters should oversail the peripheral walls at least 600 mm, spaced not more than 900 mm apart and securely anchored to the walls. At the apex of the structure the rafters should be trimmed and securely spiked together and the whole assembly tied together with a galvanized mild steel strap.

THE THATCHERS TOOLS

The thatcher in South Africa normally uses five tools:

A sickle. This is used for hand cutting as well as for cleaning the cut bundles, as described on page 9.

*The 'dekspaan' or thatching spade*¹³
¹⁴. This is usually a home-made implement consisting of a board, about 150 x 200 x 30 mm thick, with a handle on one flat side, rather like a plasterers float. Several metal blades are secured to the other flat side. These blades run across the 150 mm width and are set at an angle of about 45° to the bottom surface of the board and projecting about 10 mm from it. This tool is used to dress and

shape the thatch in position. A similar tool, but with a long handle, is used for this purpose in the Cape.



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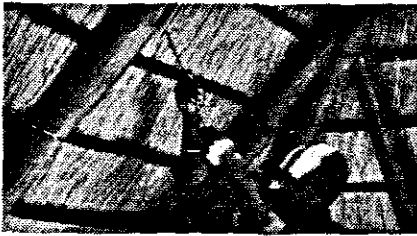


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*A straight needle*¹⁵ ¹⁶. When it is possible to have an assistant working on the underside of the thatch, a straight needle, about 300 mm long, is used to 'stitch' the thatch to the roof battens.



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A curved needle. This is about 600 mm long. It is used to 'stitch' the thatch to the roof battens when it is not possible to have an assistant working under the roof surface¹⁷.

A climbing hook. S-shaped climbing hooks are used to give the thatcher a foothold when working on the roof slope. The top hook, which is smaller than the other, is hooked over the roofing battens and the lower hook is then used as a stirrup¹⁸.

An alternative method of providing a foothold is to use eucalyptus poles, 100 mm in diameter¹⁹. These may be supported on two climbing hooks, or they may be wired to the roof timbers with 4 mm diameter galvanized steel wire. At the apex of the roof a 100 mm diameter ridge pole is fixed and another pole of the same diameter is spiked on top of it. (See figure page 15).

The thatching battens are usually creosoted wattle poles with a minimum diameter of 25 mm. These are spaced 225 mm apart, except at the eaves where the spacing between the first three battens is 150 mm, and at the ridge where the spacing between the last two battens is also 150 mm.

WORKMANSHIP

The thatching team. Normally, a thatching team consists of four men; one to pass material from ground to roof level, two thatchers working on the external roof surface and one working under the roof to assist those working on the outside. Such a team can be expected to lay about 10 m² of thatch in a day.

Thatching. Before each bundle is passed to the thatcher¹⁹ on the roof it is butted against a butting board, or on level ground²⁰, to ensure that the butt end is even and that any sharp ends are blunted. The bundles are normally thrown up to the thatcher¹⁹. If the bundles are less than 75 mm in diameter, it will be difficult to throw them up to the roof because they will be too light. This problem can be overcome by tying two bundles together before they are passed to the thatcher. However, this creates extra work for the thatching contractor who will usually prefer the bundles to be at least 100 mm diameter.

Thatching is then started at one verge. The grass is used in bundles as cut and laid on the roof with the butt end lowest. As each bundle is laid on the roof the thatcher cuts through the twisted grass or twine that secures it. He lays the first bundle on the corner, at an angle of at least 45°, thus exposing the butt end at the eaves and at the verge. As he works the course towards the opposite corner, the bundles assume a position parallel to the rafters and at right angles to the thatching battens.

Each bundle in the first course at eaves level is secured to the second batten with tarred sisal cord — thatching twine — at 75 mm intervals. In this process of stitching the straight needle is used (see page 12), where one man can work under the roof. If it is not possible to work under the roof the curved needle is used. Subsequent courses are secured, either with a poplar stick or



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with a length of 4 mm diameter galvanized steel wire; the wire is laid on top of the bundles and secured to the roof batten below with thatching twine at 75 mm intervals. Some thatchers do not do this but stitch each bundle directly to the thatching battens. This method of fixing, however, creates an undulating surface and imparts an uneven texture that may adversely affect the performance and durability of the thatch as a roof covering.

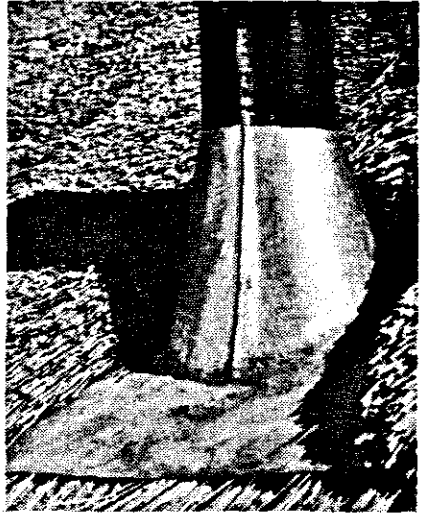
The thatch is laid, two bundles thick, to a total minimum thickness of 150 mm. Each successive layer conceals the poplar stick or wire that secures the previous layer. As thatching proceeds a layer of selected stems, known as the 'spreilaag' (see page 12¹⁶) is spread evenly on the roof battens to a thickness of about 12 mm. This gives a neat appearance inside the roof. On top of this 'spreilaag' a laminated foil of aluminium and building paper reinforced with glassfibre is laid as a protection against fire.

Thatching thus proceeds, course by course, to ridge level. There the grass bundles are either cut to fit closely to the uppermost of the two ridge poles or the bundles are bent back under themselves to form a knuckle against the ridge pole.

Chimney stacks. Special care is required where elements such as chimney stacks and vent pipes²¹ penetrate the roof plane. The lower and side faces of such features should be flashed with a sheet metal flashing dressed over the top surface of the thatch for about 150 mm. A secret gutter should be formed against the upper face. In the case of a chimney the secret gutter sheet is dressed up against the chimney into the stack jointing. The higher end of the gutter metal sheet is dressed up under the thatch for about 300 mm.

Hips. Care must be taken when thatching hips to ensure that the grass bundles at the point of the hip run parallel to the hip rafter²². On each side of the hip, as the course proceeds away from it, the bundles will gradually be turned until they are running parallel with the rafters. Care must also be taken to ensure that the full thickness of the thatch is maintained as it is taken around the angle of the hip.

Valleys. These are thatched by gradually turning the bundles in each course away from the normal up and down direction until they lie at the angle of the valley slope. Additional material is laid in the valley to provide extra thickness and to give a gradual sweep rather than an angle.



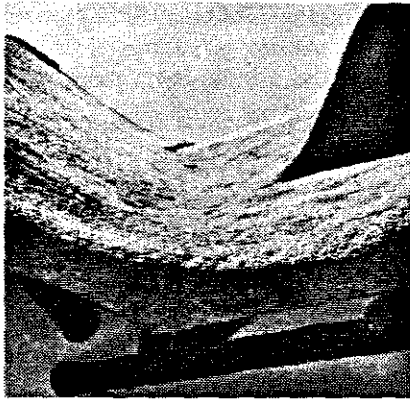
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This helps to distribute the flow of rainwater that concentrates at this point.

Verges. The angle at which the bundles are laid where eaves and verge join should be maintained for the full sweep of the roof up to ridge level.



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*Ridges*²⁴. The grass that is used to form the ridge capping is thinner, softer and more pliable than that used for the main roof. The bundles of rigging grass are bent over the ridge and anchored down to the two top-most battens with poplar sticks and thatching twine. Since poplar sticks tend to shrink and rot in time, galvanized steel wire, 4 mm in diameter, may be used instead. For additional security the ridge capping is

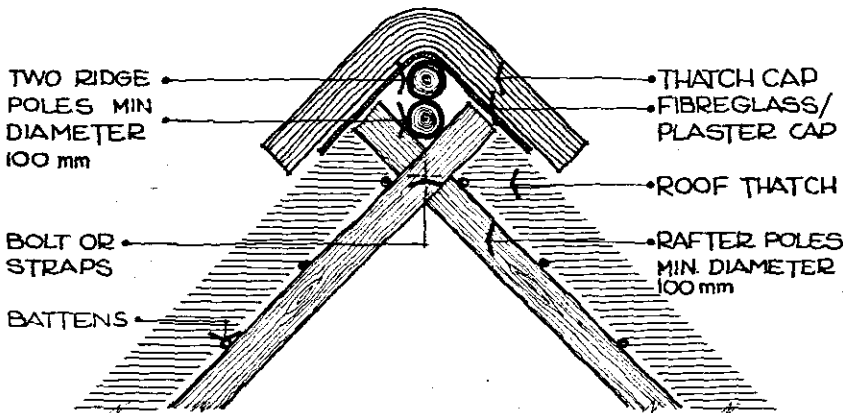


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often tied down with galvanized steel binding wire of 0,8 mm diameter²⁵.

The lower edges of the ridge capping may be trimmed to a decorative profile with chevrons or scallops. Some thatchers maintain, however, that such features weaken the ridge and shorten its life.

SECTION THROUGH RIDGE



The use of alien material for ridge capping is not considered to be good practice since it detracts from the natural softness and appearance of the thatch. Nevertheless, alternatives to grass are often used, the most common being preformed fibre-glass, sheet metal and cement²⁶.

When cement is used the ridge is formed by securing hexagonal mesh of 19 x 0,8 mm galvanized steel wire over the thatched ridge and tying it down to the thatching battens with binding wire. The mesh is then plastered over with a 1 : 4 mix of cement and riversand. The top sur-

face of the plaster is then covered with a woven glassfibre fabric and painted with bituminous paint.

The ridge is the most vulnerable part of a thatched roof and particular care must be taken to ensure that this feature is absolutely watertight. Some thatchers employ special techniques and incorporate a waterproof membrane that enables them to give a guarantee for their ridging

The provision of a steel wire mesh, as described above, over a thatch ridge will normally be adequate to prevent material being removed by birds.



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CHARACTERISTICS OF THATCH

The characteristics of thatch are conveniently considered under the headings of advantages and disadvantages:

Advantages. As local materials always tend to harmonize with the landscape surrounding their place of origin, thatch, as a natural material, will always blend well with a rural environment. After one season's exposure thatch will lose its fresh, straw colour and take on a dusty grey appearance which is not unattractive.

There is an ecological advantage to be gained by using thatch in that it is produced by natural processes that do not use scarce and expensive resources of

energy. The thatching process is a labour intensive activity and, therefore, of practical economic value where unemployment among the lower income groups is common. A thatched roof will ensure that a building will be cool in summer and warm in winter.

Thatch has a high insulation value. In technical terms the thermal transmittance, or U-value, for thatch 150 mm thick, is 0,65 W/° deg. C for downward heat flow, i.e. from external sources, and 0,67 W/m² deg. C for upward heat flow, i.e. from internal sources. The corresponding figures for 200 mm thick thatch are 0,50 W/m² deg. C and 0,52 W/m² deg. C, respectively.

Comparative figures for a galvanized sheet steel roof with a 6 mm thick gypsum plasterboard ceiling, insulated with 38 mm thick mineral wool are 0,68 W/m² deg. C and 0,73 W/m² deg. C, respectively.

Disadvantages. The disadvantages of thatch are also threefold:

Thatched houses are more vulnerable to fire risk than those covered with other materials, and it is therefore imperative that precautions be taken to reduce the risk. (See page 20.)

Being an organic material, thatch is susceptible to decay and decomposition, and precautions must be taken to minimize the possibility of this process taking place. Firstly, the grass must be mature when laid, this means that it must be cut after the first frost has killed the leaves in the case of Natal and Transvaal grasses, and at the end of the growing season (March-August) in the case of Cape thatching reed, which may be green when delivered but will gradually take on a light brown appearance.

When stored the bundles of grass should be stacked in well ventilated stacks to prevent rotting.

Secondly, leaves falling from nearby trees must not be allowed to accumulate on the roof surface.

Thirdly, the pitch of the roof must not be less than 45° to facilitate rapid run-off of water. Generally speaking, the steeper the pitch of the roof the greater will be the durability of the thatch. The poet John Keats, in his poem *The Autumn* speaks romantically of: *'the vines that round the thatch eaves run'*.

However, it is not recommended that any vegetation should be allowed to grow on the thatch as water flow from the roof can thereby be impeded.

Thatch can provide harbourage for vermin, but normally such infestation does not reach serious proportions. However, if such problems arise the thatch can be sprayed with one of the commercially available toxicants.

FIRE HAZARD

Preventive measures

Lightning conductors should be installed to protect the thatched buildings, in accordance with the recommendations contained in SABS Code of Practice 03A for the Protection of dwelling houses against lightning.

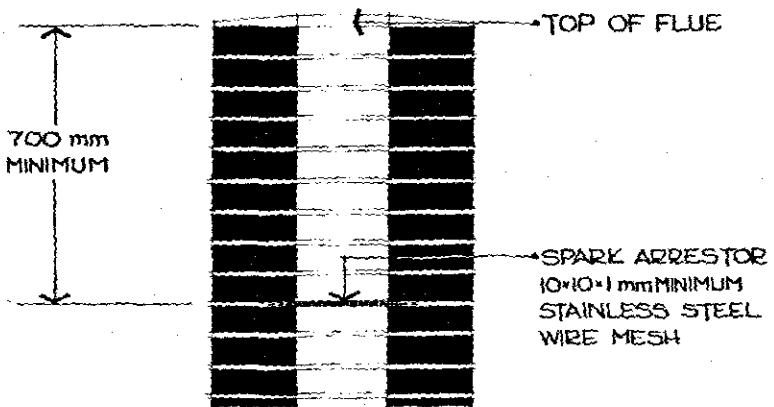
It should be noted particularly that this document strongly recommends that galvanized steel wire should not be used for securing thatch in position, and it is suggested that a suitable natural material be used. Poplar and wattle sticks are commonly used but Spanish reed (*Arundo donax*) or Basket willow (*Salix viminalis*) might also be suitable. Some thatching contractors use 4/5 strands of dekriet for this purpose, while others use imported cane. The NBRI is investigating the durability of these alternative materials under simulated exposure conditions, but is not

yet in a position to advise upon their respective performances in use.

Chimney stacks should be constructed in such a way that the outer faces in contact with the thatch do not become hot. A full brick thickness (220 mm) is normally sufficient to satisfy this requirement. All mortar joints in the stack must be properly filled. The top of the stack must extend to at least 1 m above the highest point of roof and a spark arrestor, consisting of a piece of 10 x 10 x 1 mm (minimum) stainless steel wire mesh, fitted 700 mm from the top, covering the full width of the flue, must be securely built into the flue around the edges, or supported on mild steel dowels.

It should be noted however, that in smokeless fuel zones such a device will not normally be required. It is essential that chimney flues be cleaned regularly to avoid accumulation of soot which may ignite and generate sparks.

SPARK ARRESTOR IN FLUE



Electrical power supply and telephone cables should enter the building by means of underground ducts, and all electrical wiring in the roof space should be run in screwed metal conduit, with all junction boxes properly sealed.

Combustible material should not be allowed to accumulate near the house. A number of thatched roofs have, in the past, been set on fire as a result of the burning of garden refuse in the vicinity.

Sufficient space must be allowed between buildings to prevent fire spreading to the thatched building from adjacent buildings and *vice versa*. Local Regulations will prescribe minimum requirements in this regard. The S.A. Standard Building Regulations call for a minimum distance of 15 m between a thatched building and the boundaries of its plot (Chapter 14, Regulation 15(d)(ii)).

Reduction of combustibility

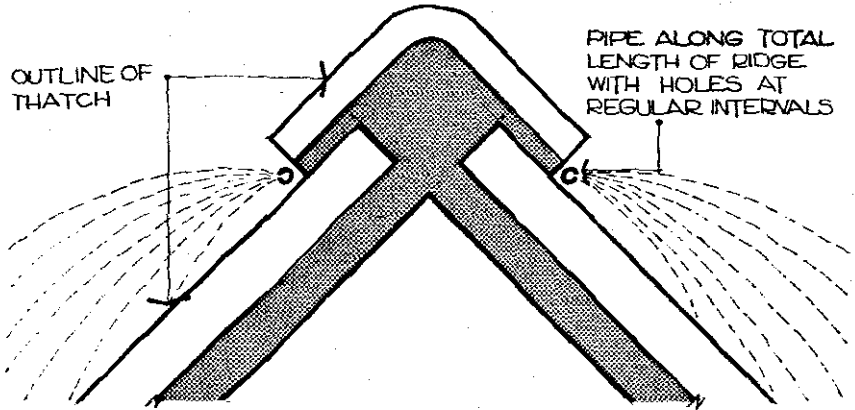
Fire retardant chemicals such as ammonium phosphate, diammonium phosphate or zinc chloride can be applied to thatch by immersion or spraying, but as these chemicals are generally water soluble they are, in time, largely leached out by rain, particularly as they do not penetrate the material but form a surface coating. Also, as most of these chemicals are volatile they will gradually evaporate when exposed to the sun.

After a relatively short period of time therefore, the top layers of thatch will become unprotected.

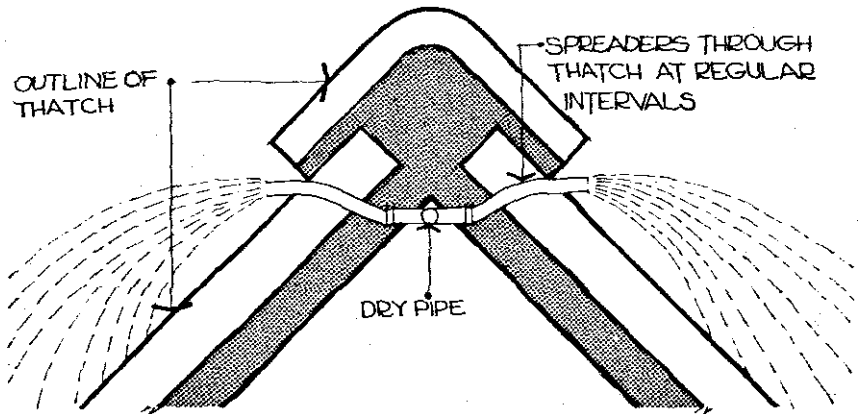
The NBRI has conducted tests on certain chemicals in the past but no permanent method of treatment is known. While therefore endorsing the use of fire retardant chemicals for thatch the Institute cannot recommend them for permanent protection against fire.

A protective, impervious, non-combustible membrane can be laid under the thatching grass, and reference has been made to the use of an aluminium/building paper/glass fibre reinforced laminated foil on page 13. One of the disadvantages of using an impervious membrane in this situation is that air flow through the thatch may be restricted and, if the material becomes damp because of rain or condensation, high humidity levels may develop which, in warm conditions, will permit the growth of destructive fungi and bacteria. Such occurrence may be avoided by ensuring that the membrane is sufficiently pervious to permit movement of air through the thatch. The perforation of the membrane during the 'stitching' process is considered to be sufficient for this purpose. Alternatively, a slightly pervious membrane of low combustibility may be provided under the thatch. One method of providing such a membrane would be to soak hessian in gypsum plaster or Portland cement slurry, and place it in position over the thatching battens before it hardens. A mineral wool underlay, woven asbestos cement fabric, gypsum plasterboard or asbestos cellulose insulation board can also be used. However, none of

A SPARGE PIPE AT RIDGE



INTERNAL DRY PIPE INSIDE RIDGE



these alternative methods will allow the thatch to be visible from the underside of the roof, which is one of the attractive features of a thatched roof.

Fire fighting facilities

Perforated horizontal pipes can be provided on each side of and running parallel to the ridge, controlled by stop taps at ground level. The pipes can be of galvanized steel or copper,

the latter being preferred, perforated with 1,5 - 2 mm diameter holes at 75 mm intervals along the length of the pipe to discharge water over the roof surface. See above.

Alternatively a 'dry' horizontal pipe may be run inside the roof at the ridge, with 'spreaders' protruding through the thatch at appropriate intervals. Such installations can be used to soak the thatch whenever there is risk of fire. The pipes should

be designed so as to discharge water over the roof at a minimum rate of 2,25 litres/m²/minute. However, it should be noted that such a rate of discharge could not be accommodated by a normal domestic supply, and special arrangements would have to be made with the local supply authority for the installation of such a system. See page 20.

A hose pipe of sufficient length to reach every part of the roof and house, and permanently attached to a stand pipe in the garden should always be readily available to deal with an outbreak of fire.

An extendable ladder should be available at all times, of sufficient length to provide access to every part of the roof.

There are two schools of thought about the value of swimming pools as a source of water supply for fire fighting.

Some municipalities in the Johannesburg area consider that a pool can be useful if located near enough to the house and with unrestricted access for the fire brigade.

However, the NBRI Fire and Concrete Division believes that thatch burns so rapidly that the fire brigade can rarely reach the scene before the fire has got a hold and that initial use of water from the brigade's unit tanks would be quicker than using a swimming pool supply.

A long-handled metal rake should be provided in an easily accessible place, for pulling down smouldering thatch from the roof. The handle may be

fitted with a suitable clip to which the nozzle of the hose pipe may be attached, thus improving the reach of the jet.

Generally

Even when all these precautions have been taken, the occupant of a thatched house must always exercise care when handling open fires in or near the house (e.g. when preparing for a braaivleis or burning garden refuse or if fireworks are being discharged in the vicinity).

RAINWATER DISPOSAL

Thatched roofs are generally constructed with dripping eaves; rain-water gutters and downpipes are not normally provided. Eaves overhangs should be at least 600 mm and some provision should be made at ground level, around the building, to prevent erosion due to water dripping from the eaves. This can either be in the form of a concrete apron or preferably (for aesthetic reasons) a gravelled strip about 1 m wide.

DURABILITY

A thatched roof will normally last for about 25 - 30 years if properly laid. Dekriet can be expected to last a little longer, say 30 - 35 years. The aesthetic advantage of using a thatched ridge has been mentioned previously. A disadvantage of using such a ridge is that it will require renewal every 4 - 6 years. As maintenance of a thatched roof invariably results in dust and pieces of straw being dislodged from the roof, the provision of a reinforced cement

ridge, suitably waterproofed and coloured, may be preferred

COST

Depending on the locality and the source of thatching material the cost of thatching may vary between R12,00 and R18,00 per m², and the supporting timber structure between R5,30 and R8,00 per m². Thatch ridging will cost about R18,00 per m run and, if reinforced with galvanized hexagonal steel wire mesh for added stability, about R25,00 per m run. Cement ridging will cost about R35,00 per m run.

MAINTENANCE

A thatched roof will require little

maintenance, except for keeping the surface of the thatch clear of creepers and other vegetation, and ensuring that no trees overhang the roof.

Any rotted thatch must be completely stripped out and replaced with new, tightly packed, mature material. The entire roof should then be dressed by brushing.

The life of the thatch will be prolonged by 'brushing' with the dekspaan, at least twice after it has been laid, at 5 years intervals. This brushing, which will cost about R2,00 per m², and will remove loose material and the dead ends of the thatch. A thatched roof can be brushed about five times before it will need resurfacing.

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