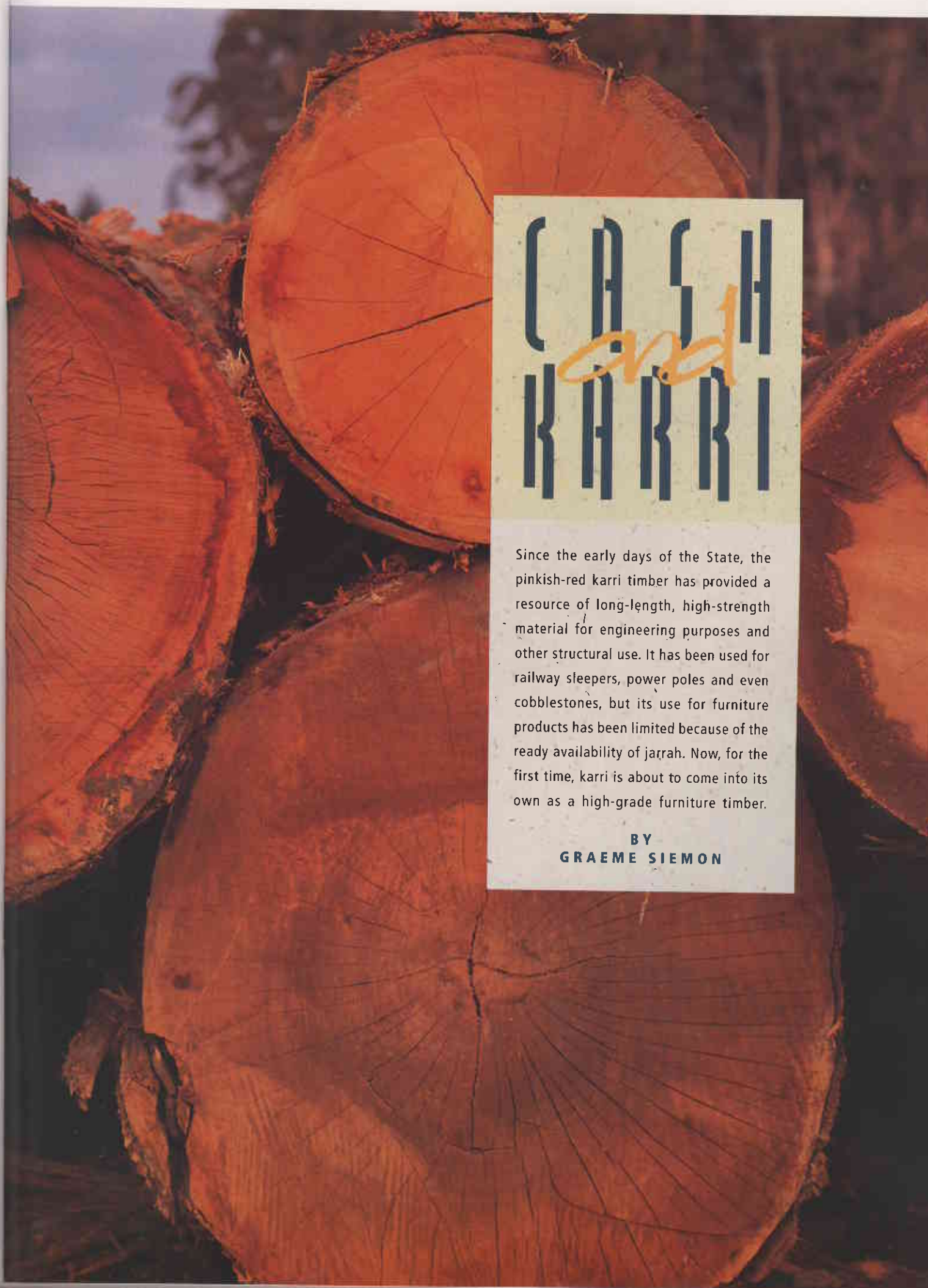


CASH and KARRI

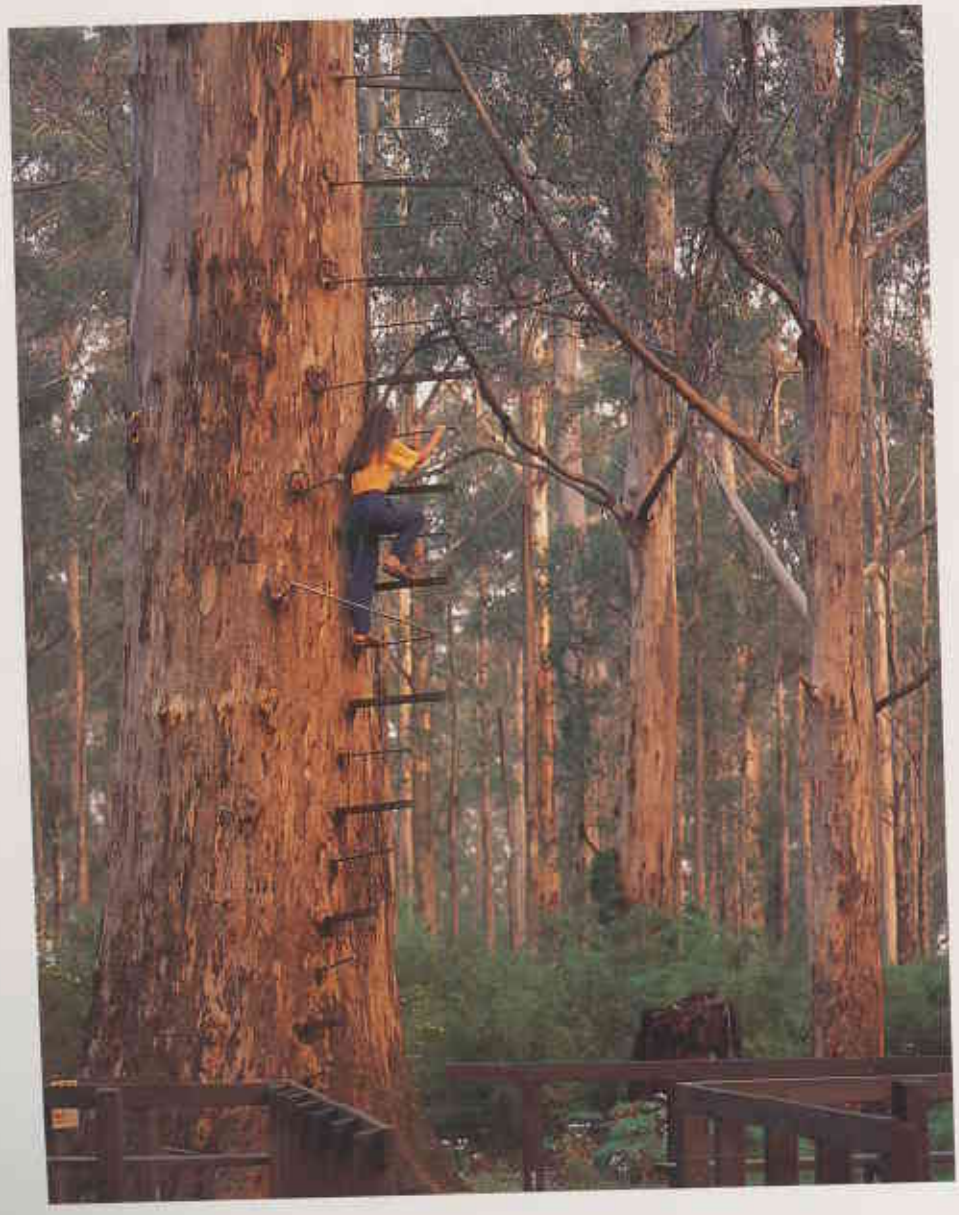
Since the early days of the State, the pinkish-red karri timber has provided a resource of long-length, high-strength material for engineering purposes and other structural use. It has been used for railway sleepers, power poles and even cobblestones, but its use for furniture products has been limited because of the ready availability of jarrah. Now, for the first time, karri is about to come into its own as a high-grade furniture timber.

BY
GRAEME SIEMON

The majestic karri (*Eucalyptus diversicolor*) is Western Australia's tallest tree and one of the tallest hardwoods in the world. The best-known karri is the Gloucester Tree, near Pemberton. This 60-metre-high giant towers above the surrounding forest, and in the past, foresters maintained a fire watch from a lookout in its lofty crown.

Karri occupies a limited area of high-rainfall country in the south-west. The main occurrence extends from near Nannup south-east to Denmark. A smaller area occurs on coastal limestone inland of Karridale's coastal dune system, south of Margaret River. There are also small occurrences near Mt Barker and in the Porongurup Range. The main area is pure stands, and karri also intermixes with marri (*Eucalyptus calophylla*), and grows adjacent to some jarrah (*Eucalyptus marginata*) forests. The karri oak (*Allocasuarina decussata*) and karri wattle (*Acacia pentadenia*) are common understorey species.

Karri commonly grows from 45 to 70 metres tall, with a diameter of 1.5 to 3 metres. It reaches its maximum height in about 100 years. The tree is easily recognised by its long, straight stem and smooth bark that is shed in strips each year. The colour of the bark changes as the tree ages, and in older trees commonly has hues of pink, orange, grey and white. The crown has a characteristic shape, with relatively few leafy upper branches arranged in distinctive broccoli-shaped clusters. The leaves are dark green above and paler below, which is the reason for the botanical name '*diversicolor*'.



NEW TIMBER

The use of karri for timber goes back to the early days of the State's settlement. Settlers used the timber for housing and fences, and in the 1870s, businessman Maurice Coleman Davies saw an opportunity to supply timber for export. In 1879, Davies began seeking a lease from the Government for the strip of karri forest along the coast south of Margaret River, where Karridale was subsequently established. There were two natural ports in the area, one at Flinders Bay and the other at Hamelin Bay.

However, Davies had a marketing problem. No-one in the major market of London had heard of karri timber; they had become used to regular supplies of jarrah from Western Australia since the early 1830s. Nevertheless, Davies was a strong-willed and persistent man and he campaigned to convince engineers and builders of karri's great strength.

Davies organised a statutory declaration from settler Alfred Bussell that karri logs from the Blackwood River had been felled 50 years previously, and the local Vasse magistrate attested that these logs were still 'sound as a bell'. A log that had been submersed in the ocean for 30 years was sent to Kew Gardens for potential timber buyers to inspect. The British Admiralty timber inspector tested karri timber for Davies, and found that it was stronger than jarrah. (Dry karri timber is actually about 50 per cent stronger than dry jarrah of the same dimensions.)

Consequently, Davies was able to satisfy his market and went on to establish the timber town of Karridale. He built up a profitable and thriving industry there. The karri timber exported to London and other markets was used mainly for engineering and structural purposes, and for cobblestones. In later years, karri has been used for power poles and railway sleepers after being suitably treated with

Previous page
Karri timber has been harvested commercially since the late 1800s.
Photo – Bill Bachman

Left: The 60-metre-tall Gloucester Tree is probably the best known karri.
Photo – Jiri Lochman

a chemical preservative to reduce the risk of attack by fungi or termites. Sawmill residue, residue logs which are below sawlog quality, and thinnings from regrowth forest provide about 40 per cent of the State's woodchip exports.

ADDED VALUE

However, over the years there has been a major change in perceptions towards the use of our forest resources. In the early days of settlement, and in fact until a few decades ago, clearing was seen as an improvement and there were few controls on harvesting forest on private land. Logging controls in State forests began many decades before then, with the establishment of the Forests Department.

Today, most people regard our native forests as a highly valuable resource. The Department of Conservation and Land Management (CALM) must ensure that our forests are harvested in a sustainable manner, with the highest economic return possible to the State and its people. As a result, a great deal of research and development has been directed towards value-adding of timber products, to increase the efficiency of use of timber from our State forest.

CALM has encouraged increased use of marri to produce valuable timber products such as furniture (see 'Marri for Money', *LANDSCOPE,* Winter 1989). Marri has traditionally been difficult to use for value-adding because of the extensive occurrence of gum veins in the timber. The gum veins are produced by the tree as a reaction to damage by borers, fire, or other factors.

Now karri too is beginning to receive some serious attention from furniture manufacturers. Karri has a pinkish-red

Above: The remains of a 600-metre-long jetty built in 1884 at Hamelin Bay. It was used to load ships with karri timber from Boranup Forest to be taken to markets around the world.
Photo – Bill Belson/Lochman Transparencies

Right: Past use of karri timber has been mainly for structural purposes, such as this bridge over the Warren River.
Photo – Jiri Lochman

Left: Karri timber is now in increasing demand for fine grade furniture.
Photo – Ross Swanborough

Below left: Karri timber is pinkish-red, has a straight grain, a slightly higher density than jarrah and is very strong.
Photo – Ross Swanborough

Below right: The karri tree can be recognised by its smooth bark, shed in strips each year and often multi-coloured.
Photo – Marie Lochman

timber that can be regarded as an aesthetic alternative to the deeper red of mature jarrah (it is a similar colour to regrowth jarrah timber. The straight grain, slightly higher density and considerable strength of karri gives it great potential for fine furniture as well as for load-bearing uses—a smaller cross-section of stronger timber can carry the same load. One slight disadvantage is that karri timber is more difficult to work than jarrah, and may require additional sanding after machining. An extra coat of finish may also be required to prevent the grain from lifting.

FURNITURE FROM FORESTS

There is growing evidence that public perceptions of the wood quality required for furniture is changing. In the past, for example, few customers would accept the features and characteristics, such as the gum veins in marri, that occur naturally in timber. These features were once regarded as defects, although they have no adverse effect on the strength of the timber or its ability to perform in service.

Only a small percentage of milled timber is defect- or feature-free, and much greater efficiency is achieved in using the resource if customers accept the natural features. These include knots, wood borer galleries, 'birdseyes' (small lens-shaped features), and gum veins. CALM now markets a category of log for craft purposes, which is referred to as 'specialty logs'. These logs are shorter than 2.4 metres, the minimum sawlog length, and may have curly grain or some other feature that enhances the appearance of the timber.

The Perth company BVR displayed high-quality dining room furniture made from karri and marri at the Fremantle Furniture Fair early in 1995 (see 'Bush Telegraph', *LANDSCOPE*, Spring 1995). The marri furniture differed from usual production because one setting had extensive kino veins in the dining table, while the other had clear wood with curly grain. The public showed much greater interest in the feature timber, indicating a change of attitudes is well under way.

Karri has great potential for fine design furniture with small cross-sections, because of its straight grain and high strength, but also contains features that could prove a considerable advantage in the furniture area. Value-adding to native timbers by producing appearance-grade timber is being actively promoted by CALM. However, some karri will still be required for engineering purposes, while pine will provide the most common structural timber.

Graeme Siemon is Scientific Adviser to CALM's State Forest Resources Business Unit, which includes CALM Timber Technology. He is based at Como, and can be contacted on (09) 334 0410.

LANDSCOPE

VOLUME TWELVE NUMBER 2, SUMMER 1996–97

Shannon National Park is the home of the Great Forest Trees Drive, another nature-based tourist attraction for the south-west. Read the story on page 17.

The rugged Kimberley coast was the location of the first maritime LANDSCOPE *Expedition. Read all about it on page 10.*

A huge volunteer effort has helped with the renewal of the Montebello Islands and the eradication of feral animals. (See page 47.)

Science has long-known the relationship between plants and habitats. Now we are 'Prospecting for Plants' using landforms as a guide. (See page 23.)

One hundred years ago, two members of an expedition to the Great Sandy Desert became lost. Read what happened to them in 'Land of the Lost' on page 36.

FEATURES

REGULARS

COVER

*The scientific name of the little penguin (*Eudyptula minor*) means 'little diver'. The wings of these flightless seabirds have evolved into flippers for underwater propulsion. The little penguin is the smallest of the 17 penguin species. Penguin Island has the largest colony of little penguins on the west coast. See 'The Changing Face of Penguin Island' on page 28.*

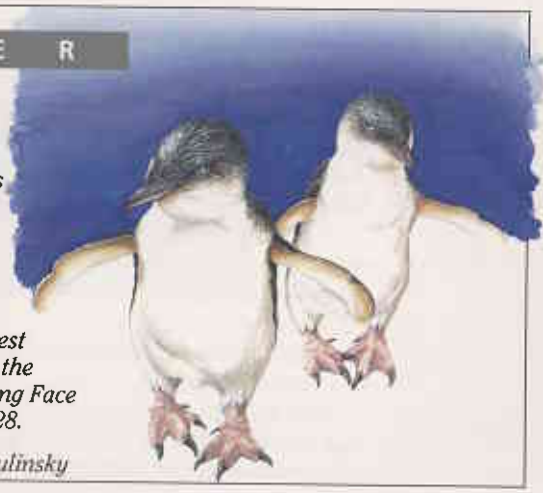


Illustration by Philippa Nikulinsky

Managing Editor: Ron Kawalilak
Editor: David Gough
Story Editors: Ray Bailey, Verna Costello, Mitzi Vance, Carolyn Thomson
Scientific/technical advice: Andrew Burbidge, Ian Abbott, Paul Jones and staff of CALM's Science & Information Division
Design and production: Maria Duthie, Sue Marais
Finished art: Gooitzen van der Meer, Maria Duthie, Tiffany Aberin
Illustration: Gooitzen van der Meer
Cartography: Promaco Geodraft
Marketing: Estelle de San Miguel ☎ (09) 334 0296 Fax: (09) 334 0489
Subscription enquiries: ☎ (09) 334 0481
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