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CHAPTER XVII

THE FRONTIER OF THE FOREST AND Reforestation

The decimation of the aboriginal tribes was aided by the wholesale destruction of the vast forests that sheltered the animals and plants—formerly flourishing abundantly—on which they relied for food.

Timber-getting was a flourishing industry in the 'sixties. The adventurous pioneer often found it the source of the initial capital he needed; and moreover recklessly destroyed millions of trees in clearing his land ruthlessly for flocks, herds, and produce.

Writing in 1871, after eight years' residence in Queensland, Ebenezer Thorne (112) said that in the early 'sixties there were seven sawmills in the Wide Bay district: three at Maryborough, two at Bundaberg, one at Gympie, and one at Noosa Lake. To keep these mills supplied, large numbers of timber-getters and teamsters found employment. For many years, the vast scrubs on the Mary River and Tinana Creek yielded all the timber used. The timber-getter obtained a licence, which cost him £2 per annum for softwood and 10/- for hardwood. Armed with this he could enter any Crown lands, unless they were leased by the mile by others in his own line.

The principal rafts cut up at Maryborough were obtained in the 'sixties in the neighbourhood of Mount Bauple, behind Tiaro, in Tin Can Bay, and on Fraser Island. The timber-getter was usually the pioneer of settlement, and by natural transition became a farmer.

Rafting timber on the Mary and other streams in the Wide Bay district was an arduous, not to say perilous, occupation. Pine timber was mostly obtained in such localities as were accessible to navigable water, but cedar (usually obtained far above saltwater) had to be rafted or “freshed down” when some suitably situated river was swollen by rains.

The high-quality pine timber from the Wide Bay district had a high reputation in the Sydney and Melbourne markets. Some of the kauri pine trees (113) were of vast proportions.

The palmy days of the cedar industry in Queensland were in the 'sixties and 'seventies. In these years the rich cedar, pine and beech

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(112) "Queen of the Colonies," London, 1876.

(113) Thorne records having measured them in the scrubs on Kin Kin Creek as much as 36 feet in circumference. It was not unusual to find them sufficiently large to square from four to five feet perfectly solid, and without a knot for 70 to 80 feet from the ground.
Torres Sts. native with Trochus Shell.
Aboriginal with various items of food.

(Courtesy of Dept. of Native Affairs, Queensland.)

Group of Aboriginal Women, from the "First Families of Australia."

PLATE XXXIV.

(a) BUNYA PINE
(Araucaria bidwillii)

(By Courtesy of Forestry Dept., Qld.)

(b) BOTTLE TREE
(Sterculia Spp.)

(By Courtesy of Forestry Dept., Qld.)

(c) ROSE GUM
(Eucalyptus grandis)
Maroochy, N.C. Line.

(By courtesy of Forestry Dept., Qld.)

REFORESTATION
(Note size of men in (a), (b) and (c) for comparison.)

(By courtesy of Department of Agriculture and Stock.)

PLATE XXXV.
forests of the Logan and Albert Rivers were completely gutted. The logs hauled by the bullock teams were put into the creeks to await the annual floods which would bring them to tide-water. There they would be assembled into rafts, some of them half-a-mile in length. When the floods receded and the tides returned to normal the intrepid rafters began the journey to Brisbane. The rafts drifted down the river on the ebb tide current till the turn of the tide, when the raft was anchored or tied up to a tree on the bank until the next ebb.

The rafts were navigated across the Bay with remarkable skill to the mouth of the Brisbane River and thereafter piloted, on the crest of the flood-tide, to their destination at Pettigrew’s and other mills. Logs awaiting shipment overseas were moored in large rafts close inshore at Petrie’s Bight, near the (later) site of the Kangaroo Point ferry landing.

With the development of the Brisbane mills, cedar from the Tweed was no longer sent to Sydney by the more expensive ship transport. Huge rafts were brought from the Tweed River; taken out to sea over the dangerous Tweed Bar; thence to the bar at Nerang River; and so to Brisbane, the daring raft navigators skilfully making use of the northerly ocean current, which runs past Cape Byron and Point Lookout.

Queensland *kauri pine* was discovered by Andrew Petrie at the north head of the Mary River in May 1842. He commented, also, that the *cypress pine* on Fraser Island was “quite splendid.” He did not penetrate further into the island to discover the big stands of commercial timber. In 1862 when Maryborough was a small settlement of a few houses, Tom Petrie explored Fraser Island, the Tin Can Bay region and the Susan River, searching for timber with Pettigrew, who, in association with Sims, established the Dundathie mill in 1862, and in 1863 began to raft kauri logs from Fraser Island.

There was a great destruction of *cedar* in the days of early land settlement. As far back as 1873 John Jardine, at a meeting of the Acclimatisation Society, observed that the work of destruction of timber had been going on from the very earliest stages of the Colony’s existence. At one time, the Moreton Bay district was covered with red cedar—that most dignified and handsome of woods—but eighty years ago most of it had vanished, and hardly a stick remains to-day. Timber in amazing growth and profusion fell before the axes of the pioneers and went up in flames. The men who wielded the axes can scarcely be blamed for this timber holocaust. It was their desire to carve out for themselves a livelihood in a new country which was not forestry-conscious, and did not realise for many years the national importance of a vigorous and consistent
policy of forest conservation and reforestation. For decades the State itself pursued a policy of forest alienation, and forests of a type that would now rank among the most valuable in the world, were sold to selectors and timber dealers for the proverbial song.

Potentially, Queensland has a larger area than any other Australian State suitable for permanent forestry production, and the native timber resources have been an important asset in a continent which does not possess abundant supplies of softwoods. These timber assets have been of high productive value, but their exploitation, over the years of settlement, has been so rapid that exhaustion of available supplies is threatened before the volume of timber removed can be replaced by reforestation or natural growth.

The Timber Belts:

Native timbers occur chiefly in two large and widely separated areas.

In the South the timber country extends from the ranges on the border of New South Wales and Queensland to beyond Maryborough; this is the main pine-hardwood belt. Along the coastal region the most important species are hoop pine, ironbark, blackbutt and spotted gum, while the drier inland south-west provides cypress pine, ironbark and spotted gum.

In North Queensland, i.e. north of Townsville, the “rain forest” or jungle timbers comprise, in addition to some kauri pine, a wide range of first-class cabinet timbers. Although enormous quantities of these timbers went up in the holocaust of settlers’ “clearing” fires, appreciable quantities remain, and are being used to an increasing extent for building construction, furniture and veneers. Some of these celebrated Queensland timbers are walnut, maple, silkwood, black bean, silky oak, red cedar, and silver ash, but many other lesser-known woods of great intrinsic value have won recognition on the timber markets. There has been a great development in the production of plywood and veneers in this region.

Many of Queensland’s “Cinderella timbers,” long neglected as valueless and ruthlessly destroyed, have become famous. The beautiful red tulip oak, tried as a weatherboard and rejected, became a magnificent timber for interior furnishing. Other timbers which became valuable for artistic furnishing were the lambent-hued sassafras, the ivory quandong, the maroon-tinted satin sycamore, the blue-tinged bolly silkwood. Saffron-heart, once an obscure scrub wood, has become world famous as the best fishing-rod timber procurable.

Years ago satiny—then known by the more prosaic name of “Fraser Island turpentine” —was condemned by timber-getters because of its propensity for warping and shrinking, and sawmillers refused to handle it. The Forestry Department discovered that all that was necessary was to season the wood under cover. As a result satiny took its place as an aristocrat among timbers, finding its best use in high-class interior polished floorings and fittings. In the State Insurance Building, Brisbane, 30,000 feet of satiny was used for decorative flooring and other purposes. Queensland walnut was another treasure-wood that was found among the despised and rejected timbers of the sawmiller. Its value for veneer purposes attracted world fame, and it has taken its place as one of the finest cabinet woods known.

Few people know that our Australian hardwoods have a durability greater than the famed British oak; that Queensland maple is the best available timber for aeroplane propellers; or that Australian wattle barks yield some of the world’s best tanning materials.

Forest Conservation and Reforestation:

Forest conservation as a considered policy was of slow growth. Up to 1880 the only step which had been taken in the direction of forest conservation was the setting apart of some areas as timber reserves, and the provision of regulations for the protection of certain trees under a certain size. The Government was confronted with continuous demands to have the reserves opened; indiscriminate cutting of timber was practised, large quantities of valuable species, including cedar, being wasted.

On 2 November 1905 belated realisation of the importance of forestry was reflected in the appointment of Philip MacMahon as the first Director of Forests.

By 1906 there were 337 timber reserves of a total area of 3,460,826 acres. The State Forests and National Parks Act of 1906 precluded the alienation of State Forests and National Parks (with minor exceptions) except under the authority of an Act of Parliament. In 1907 seven State Forests (area 416,872 acres) were proclaimed under this Act.

To-day the Department of Forestry functions as a separate department under the control of the Director of Forests (Mr. V. Grenning). The work of the department in the field of reforestation is directed towards making adequate provision for the timber requirements of the State. This consists principally in the establishment of plantations of softwoods and the improvement of natural stands of the hardwoods, cypress pine, and cabinet woods of North Queensland. A minimum of 200,000 acres of good quality softwood plantations is considered necessary, and the department hopes to achieve this
target by 1980. By the end of March 1958, 79,558 acres of plantations of native and exotic softwoods had been established, this area being extended by the annual planting of about 5,000 acres. *Hoop pine*, which occurred naturally in the rain forests of South Queensland, accounts for more than half the area planted. *Kauri pine*, *bunya pine*, and Queensland *maple* are also being planted. All four species produce timbers which compare favourably with the best of other countries. These plantings are restricted to regions of rich soil which formerly carried rain forests or jungle, e.g. the Brisbane and Mary Valleys, Nanango, Kilcoy, Kilkivan, Kalpowar, and the Atherton Tableland. A highly satisfactory growth of hoop pine in plantations has been achieved; on average sites, the selected high-pruned trees attain an average height of eighty feet and an average girth of thirty-three inches at the age of twenty-five years.

*Slash Pine*, which is native to the south-east of the United States, is the principal exotic species. Centres of planting are Beerwah, Toolara (Coondoo Creek, near Gympie), Tuan Creek (near Maryborough), and Bowenia (near Yeppoon). The oldest plantations are at Beerwah; these were established in 1928. At thirty years in 1958 the average height of the slash pine was eighty-four feet, and the average girth, breast high, was forty-three inches, for the 111 stems per acre remaining. Merchantable thinnings had yielded 2,200 cubic feet per acre, and the standing volume was 3,400 cubic feet per acre.

In recent years *Honduras slash pine* has been introduced into the planting programme at these coastal centres, and, particularly at Bowenia, it promises to become one of the important species in this work. Its growth rate at this early stage is better than that of United States slash pine, and its wood is reputedly superior for general purposes.

In all softwood plantations the object is the production of the maximum quantity of high quality wood consistent with a reasonably high total production of merchantable timber. To achieve this planting, spacings of not closer than eight feet by eight feet are adopted; early and heavy thinnings are applied to promote the growth of the best trees, which are pruned clear of branches to a height of twenty-one feet. Merchantable thinnings commence at from twelve to fifteen years of age; the timber so yielded is becoming increasingly important to the State. The first sale of thinnings was made in 1942, and the annual amount becoming available had increased to approximately thirty million super. feet by 1958.

Improvement of the natural forests is effected by cultural treatments. These are designed to secure adequate regeneration of the best species, to improve their representation in the forest, and to promote the growth of the best individuals by the removal of useless competing trees and undesirable species.

All reforestation work takes into account the need for complete fire protection. Systematic planning for the protection from fire of planted and treated areas hinges, in the first place, on quick detection from lookouts, or, where these are not available, by patrol. Telephones or transceiver wireless sets serve for quick communication, and access roads, to permit speedy attack on fires, are developed where possible. Firelines and breaks are also constructed to serve as a basis for fire-fighting—in jungle country, green breaks and ploughed lines are used; in coastal hardwood forests, green breaks only; in the western forests and coastal plantations, where visibility is essential, cleared breaks replace the green breaks.

**Forest Products Research:**

Parallel with silvicultural research, the department maintains a programme of forest products research. The twofold aim is to ensure the provident use of the existing resources, and the production, in reforestation operations, of wood with qualities suitable for the needs of the State.

Application of preservative measures against fungal and insect attack; conditioning of wood for use by correct seasoning practice; efficient methods of conversion from the log to useful products; the establishment and maintenance of standard grading rules; the study of the physical properties and strength-values of the wood produced in the State's forests; and the development of new methods of fabrication, are current forest-products research projects.

**National Parks:**

Under the control and maintenance of the State Forest service are 837,316 acres of National Parks. The department's development policy has been based on the cardinal principle of preserving the natural beauty and scientific interest of the areas. Enjoyment of the scenic beauty of the areas has been made possible by construction of smooth-surfaced walking tracks on easy grades. The largest national park in the State is the Eungella Range National Park of 120,000 acres, situated west and north-west of Mackay. The most northerly is the Flinders Group of Islands, off the east coast of Cape York Peninsula, in Bathurst Bay; the farthest inland is on the Carnarvon Range in the Roma district.

The National Parks are completely reserved against removal of timber or flora; native animals and birds are given full protection; and the operations of the mining laws are restricted. Alienation of a National Park, once proclaimed, may only be made with the authority of an Act of Parliament.
Queensland’s National Parks exhibit an interesting range of vegetation types, e.g. rain forest or jungle, open eucalyptus forest, the wild flowers of coastal sandy lands and swamps, and of granitic areas. One of the outstanding trees of the temperate rain-forests is the *Antarctic beech* (*Nothofagus*), so called because close relatives were at one time found in Antarctic regions where at present only a couple of lowly species of grasses and herbs are found. These strange survivals of the once great circum-polar forests of temperate Tertiary times occur plentifully on the Lamington Plateau; they are close relatives of the beeches of the northern hemisphere. Large trees of great interest botanically, but of little value as timber, are the strangling figs (*Ficus*) and the giant stinging-tree (*Laportea gigas*) which attains a height of over 100 feet and a girth of 18 feet.

Among the outstanding flowering trees of the rain-forest are the Queensland waratah (*Embothrium*), the flame tree (*Brachychiton*) and the firewheel-tree, or wheel of fire (*Stenocarpus*).

**Timber Control and Sawmilling**

The Department of Forestry controls the disposal of timber resources on Crown lands, the reserved forest areas, and selection tenures which reserve timber to the Crown. Silvicultural operations to replace forests cut for use are being actively pursued. Thinnings from pine plantations established by the Forestry Department already are making a considerable contribution to the softwood needs of the State, 142 million super-feet having been milled to 30 June 1953. In 1957-58 there were 590 sawmills, 29 plywood and veneer mills, and 58 case mills actually operating in Queensland, and the sawn timber produced was 243,000,000 super-feet, valued at £14,300,000. Sawmills and plymills in Queensland are licensed, and no mill can be operated without first securing a licence.

The existing licensed capacity (log input) of mills in the State exceeds 1,000 million super-feet per annum; the greatest log-cut in any one year was 487 million super-feet (in 1951-1952), of which 238,000,000 super-feet was obtained from areas under the control of the Forestry Department.

Community requirements from Crown forests in constructional timbers such as poles, piles, sleepers, girders; and, in fencing timbers and other miscellaneous items of forest products, amount to approximately 60,000,000 superficial feet of wood annually.

Since 1951-1952 the rate of removal from Crown lands has averaged very close to 224,000,000 super-feet of mill logs annually.

NOTE.—Data obtained from official reports on forestry operations from 1875 et seq.