



*Fig tree (Ficus destruens). Rainforest Aborigines used sheets of fig tree bark as blankets, and they carved the soft wood of the buttress roots into shields.*

WELDON TRANNIES

# CHALLENGE AND RESPONSE IN THE RAINFOREST

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**T**HE RAINFORESTS of the tropical northeast are an unusual environment in Australia. The densely forested coastal lowlands and adjacent mountains and the extremely heavy annual rainfall fostered a distinctive response from the people who lived between present-day Cairns and Townsville. Aspects of their language and society have been described in chapter 7; here we look at their material culture.

The rainforest people lived in small groups, coming together periodically for corroborees known as *buya* or *buluba*. Each group hunted, fished and gathered wild foods within its recognised territory, moving camp as appropriate. In some places the bush yielded resources for semipermanent camps, requiring only a few shifts each year as the seasons changed. To protect themselves against the weather, people built dome-shaped shelters out of canes or sticks, the ends pushed into the ground, the whole being tied together to form a simple frame two or three metres in diameter. The frame was then covered with tea-tree bark, melaleuca grass or lawyer-cane leaves (*Calamus australis*). Some shelters were larger, as high as three metres and more than nine metres in diameter. People lit fires inside for warmth and used blankets of tea-tree or wild fig (*Ficus*) bark, beaten out to form large pliable sheets.

As in most Aboriginal societies the men hunted, using spears and clubs. Snakes, goannas and other reptiles, such birds as the scrub turkey and such mammals as possums, flying squirrels, wallabies and kangaroos were their prey. They also used nets and snares, and trapped fresh water and marine creatures such as eels, water pythons, turtles and dugongs. They fished with spears, hooks and lines, different kinds of nets and weirs and rope dredges. An unusual form of tidal weir that may still be seen on Hinchinbrook Island was made of a semicircular wall of stones extending up the beach from the low-water mark. Fish were trapped as the tide ebbed. Poisons, some made from the root of the *Careya australis* tree, were used in both fresh and salt water. Crushed leaves or a paste made from powdered root were thrown in to stupefy the fish, which then floated to the surface.





Bicornual baskets of split lawyer-cane (*Calamus australis*). Two wefts are twined at spaced intervals between the vertical warps. To keep the rounded shape, extra horizontal strips or stiffeners were inserted into the basket behind some of the weft lines. The baskets were carried on the back by means of a tumpline or strip around the forehead. They were used for many purposes. The painted designs on the face of a basket were always geometric in form, the colours being provided from white clay, charcoal and red and yellow ochres, and sometimes blood. Each basket is about 30 cm deep.

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The work of women, however, supplied most food. Their daily task was to collect wild plant foods—fruits, nuts, honey, leaves, yams and other tubers; to gather eggs, insects, grubs and shellfish; and to scoop up small fish in baskets, nets and simple dredges. Except when fishing, they needed little equipment other than a digging-stick and a container for carrying home the food. Such containers might have been a bark bag or a basket, hanging either from the shoulder or down the back from a strap around the forehead.

Various plant foods, particularly fruits, were eaten raw, but many were edible only after complicated and long preparation. Indeed some, for example *Cycas* fruits, were often dangerously toxic unless treated. Such foods had to be leached in water for some days. They were then reduced to a flour by slicing and crushing, and baked. Eggs, nestlings, fish wrapped in leaves, birds and small game were baked in hot ashes, while turtles were roasted in their shells. Hot stones were often placed inside the shells to speed the process. For large game such as kangaroos, eels and pythons, earth ovens were used. These were holes thirty or more centimetres deep in which a layer of stones was heated by fire. The meat was laid on the stones between layers of green leaves such as wild ginger, and the hole refilled with earth. The food was then left to cook.

For slicing or scraping plant foods, the women used a snail shell or a flat stone grater, or ground them between two stones. In the northern part of the region, nut-cracking stones were also used; their upper surfaces were dimpled or indented to hold the nut steady. A small hammer-stone was wielded to crack the shell. Such grinding and nut stones, too heavy to carry from camp to camp, were left at a campsite until needed.

Bark bags, coated inside with wax, and wild gourds (*Cucurbita* sp) were used for carrying and storing water. Simple pieces of bark provided a dish or plate for honey and similar delicacies. Food, small equipment and personal possessions, however, were usually kept in baskets. There were two main forms of basket: a simple, cylindrical, tightly woven basket of grass, and an openwork bicornual basket made from the lawyer-cane vine. The bicornual basket, named for the two corner points at the curved base, is elegant in its simplicity. It is unique to the rainforest people and apparently to the southern part of the region. It served as an all-purpose basket, both in camp and on food-gathering trips. It could be used for catching small fish and even for leaching toxic plant foods in running water. A larger version carried babies, freeing the mother's hands for other tasks.

Men's equipment was more varied. They hunted, they fished and they fought. Their spears were of wood, sometimes barbed with fish bones or echidna spines. Multipronged spears were sometimes used for fishing. Spears were thrown by hand or with a spearthrower. Boomerangs were used in open areas at the edge of the forest and in a few areas cross-boomerangs, consisting of two crossed pieces of reed or light wood, were made for amusement. The throwing-stick was an essential weapon, and so was the hardwood club, usually smooth and bulbous at one end but sometimes of the 'pineapple' type, the bulbous end being carved and notched. Hatchets were of stone, usually basalt. The edges were sharpened on rocks and sometimes a groove was cut around the stone head to take a handle of lawyer-cane. Hafting of both hatchets and spears was strengthened with natural resins such as that of the grass tree (*Xanthorrhoea* sp). Larger heavier heads, oval in shape, were used unhafted. An unusual T-shaped stone was made in the area near the present town of Innisfail. Fewer than 150 *ooyurkas*, as they are termed by anthropologists, have been recorded. As a unique feature of rainforest culture, their use presents a puzzle still to be solved. Not all stone tools were ground. Knives, chisels and scrapers were usually flakes struck from larger stones.



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2.



3.



4.



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6.

1. Bark bag made from folded sheet of bark. The edges are sewn together. The bag was carried on the back by means of a tumpline or strip around the forehead and was used for carrying and storing water. This bag is about 30 cm deep.

2. Food grater, a large flat stone with numerous deeply incised parallel grooves. Vegetable foods were grated by rubbing across the ridges.

3. Grinding stones were used by women. Seeds and other foods were ground to a powder by rubbing or rolling the smaller upper stone on the larger dish-shaped one. Length: 45 cm.

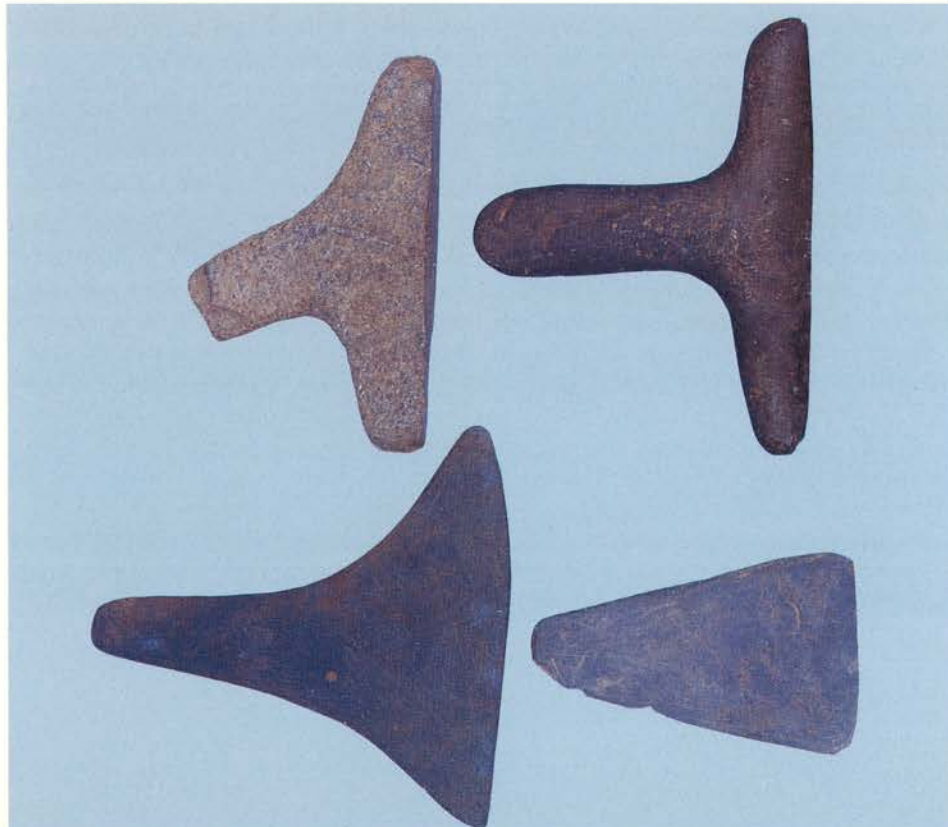
4. This nut-cracking stone was used for extracting nut kernels. The nut was placed in one of the dimples in the stone and struck with a smaller stone.

5. Cross-boomerangs were children's toys made of two flat sticks bound together. Each arm is about 15 cm long.

6. Hafted stone hatchet. The hatchet head has been ground to provide an edge and a groove has similarly been ground, using sand and hard stone, across the head itself to facilitate hafting. The haft is made of a piece of split lawyer-cane vine folded over and then wrapped tightly for the whole of its length with similar material. The join of cane haft and stone head is cemented with resin.

7. Ooyurkas. These strangely shaped stones have a flat working surface along the upper edge which has clearly been used for rubbing or abrading soft or fibrous materials. But what were these materials? Surprisingly, the marks of iron files have been observed on one ooyurka, indicating that it dates to no earlier than the late nineteenth century. No ooyurkas have yet been found in archaeological sites.

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7.



*Tree climbing using a loop of lawyer-cane.*

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*Man and child with large bicornual basket. The upper arm of the man is heavily decorated with scars.*

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*Sword clubs were long and heavy, measuring up to 1.5 m in length and 2.5 kg in weight. Made of hardwood, they were flat in section, with distinct edges. The handle was sometimes wrapped with string and coated with resin to give a firm grip. Used single-handed in duels, the sword club could inflict serious wounds.*

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Spears and clubs were common fighting weapons. Men also fought, particularly in duels, with heavy hardwood swords and large shields found nowhere else in Australia. The shields were light, carved from the soft fibrous buttress roots of the wild fig tree. They were used together with single-handed swords, each 120 centimetres or more long and weighing two to three kilograms, with sharpened edges that could cause serious injury. But the shields were tough enough to absorb such blows: their cross-grain did not split apart under impact. Spears thrown against them became embedded and broke off at their tips. Duels were fought over disputes between individuals, often over women, at the periodic *brun* meetings, when neighbouring small groups came together for social and ritual purposes. Fighting often became more widespread, men on both sides using swords, clubs and spears, and women joining in, armed with their own fighting sticks.

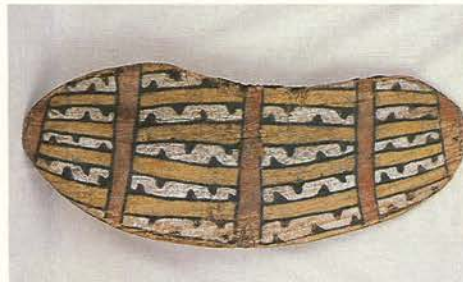
Fire provided warmth, generated smoke to keep mosquitoes away and cooked food. Each man had his own drill stick and hearth stick, the former rounded with a point, the latter either similar in shape or broader and flatter. The man held the drill vertically between his palms, placed its point in a notch cut in the hearth stick and twirled it vigorously, both to produce timber dust in the notch and to generate sufficient heat to ignite the dust. Then he carefully tapped out the smouldering dust onto a handful of dry grass and blew or fanned it until it burst into flame.



1.



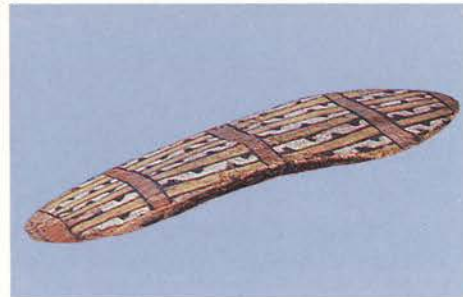
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5.

1. Rainforest men with their shields and swords. The body of the central figure with the spear is heavily decorated with white down.

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2, 3, 4. Shields. In duelling as well as in other fighting, rainforest men used large wooden shields as protection against the blows of the heavy wooden swords. The shields were of the soft corky wood of the wild fig (*Ficus* sp) and were carved from slabs cut out of the buttress roots of these trees. The shields were light in weight and absorbed the swords' blows. While pieces were sometimes cut off in the process, the complex grain of the buttress wood prevented a heavy blow from splitting the shield completely, as would happen with normally grained timber. The shield in picture (4) shows the effect of sword blows along its edge. A boss was carved on the face of the shield to protect the hand grip hollowed out behind. The shield also provided protection against spears, and shields in museum collections sometimes show spear tips embedded in them.

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5. The polychrome designs on shields were bold and geometric in form, relying on reds, yellows, white and black, as did designs on baskets and other surfaces. The shield designs, however, were symbolic of totemic creatures and were individual to the owner. Each shield is about 80 cm long.

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Men and women travelled on foot, and by water in canoes or sometimes on rafts. The canoes were made of a folded single sheet of bark or of solid wood. Dugout wooden canoes, complete with a single outrigger for stability, were common down the coast as far as the Whitsunday Passage. They originated in the far north, in Torres Strait and Papua. Simple pieces of bark were used to paddle the bark canoes. For the dugouts, paddles were of wood, with shaped handles and blades. Rafts were simple logs.



*Rock painting at Princess Charlotte Bay.*

D. LEWIS



*Man holding a wooden fighting sword and a shield painted with scorpion design.*

U. McCONNELL

The rainforest people wore no clothing, but decorated themselves with a variety of ornaments: shells in the hair or beard; a stick or bone through the septum of the nose; a feather in the hair; headdresses of net, wax and feathers; and necklaces and bracelets of hair, shell, grass or berries. Men and (less often) women scarred and painted their bodies, using powdered ochres, pipeclay and charcoal to make geometric designs in red, black, white and yellow. Similar designs were painted on the faces of wooden shields and even on bicornual baskets and other artefacts. These designs, especially those on the shields, had symbolic meanings, linking the user with particular legends and with creatures both natural and mythical.

They also engraved and painted geometric designs and representations of animals on the walls of rock shelters, and carved designs into growing trees. A painted shelter may still be seen at Jiyer Cave on the Russell River and trees still standing bear evidence of the carvers' art.

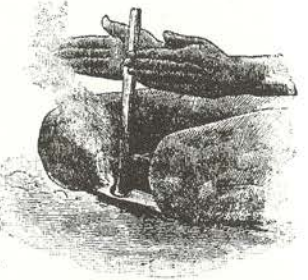
To provide musical rhythms for ceremony and pleasure, the rainforest people tapped pairs of clapsticks or boomerangs. They do not appear to have borrowed other instruments such as drums from their Melanesian neighbours, as did Aborigines living further to the north along the east coast. Didjeridu drone pipes which, like bark paintings, are sometimes mistakenly thought to be common to all Australia, were not indigenous to this region. The design of these instruments has been recently imported from Arnhem Land, far to the west.

When a person died, the corpse was treated according to the status of the deceased. It might be buried or cremated, or dried out on a platform over a fire; sometimes these procedures were combined. The bones, perhaps painted with red ochre, were sometimes carried around by female relatives. Mourners wore necklaces made from multiple strings of short lengths of grass stem and painted their bodies with pipeclay. Death and misfortune were usually attributed to supernatural causes and charms were therefore used for protection. Herbal medicines were used for illness.

As we saw in chapter 7, different groups moved within the region and lived in contact with each other. They also met people living outside the rainforest and traded with them, importing goods and customs from as far away as Torres Strait and Melanesia: earth ovens, dugout canoes, notched clubs, multipronged fish spears, fish hooks, certain ornaments and perhaps some mortuary practices. A robust culture absorbed these innovations without itself being dislocated. By about 200 years ago they were an integral part of life in the rainforest.

Life in a rainforest is not easy. The forest floor, especially on the lowlands, offers little food and the animals are often nocturnal. The trees and their canopies yield some resources, but it is on the dense fringes of the forest, around open clearings and along the seashore and river banks that most edible plants flourish. Fish, crustacea and riverine and marine animals are restricted to their particular environments. Adapting to the rainforest, recognising its possibilities and dangers and adjusting to the seasonal rhythm of the fruiting of its plants demands experience and skill.

The problem is not just dependence on bush foods. Small isolated communities of hunter-gatherers rely almost completely for tools and equipment on the raw materials of their immediate habitat. They often develop complicated processes for using these materials and a community may come to depend heavily on one or two of them. In the northeast region, for example, lawyer-cane was used for a wide range of purposes. If large sections of the habitat are destroyed, people are deprived of resources on which they have come to rely, and they may face terrible dislocation. This was to happen to the rainforest people.



*Firemaking using two sticks. This technique is to be found in Africa and South America as well as Australia. The object is to create and heat up a small heap of wood dust. Placed in dry grass or leaves and then wafted about in the air, the glowing dust ignites the dry material. Lumholtz, Among Cannibals, 1889.*

*Overleaf. Watercourses in the tropical rainforest could be used as trackways and were the habitat of many plants important to Aboriginal people.*

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