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Study Region: Environmental, Historical and Cultural Background

Introduction

This chapter presents background information regarding (i) the understanding of the environmental context, (ii) the distinct Aboriginal rainforest culture recorded at the time of European contact, (iii) the outcomes of Aboriginal interactions and negotiations with Europeans over the decades that followed first contact and (iv) the archaeological evidence, to the study area. The first section describes the environmental setting of the rainforest region, and demonstrates that a great level of biodiversity exists in this region. Information from palaeoecological research in the region is summarised to facilitate an appreciation of the climatic and environmental variability of the late Pleistocene and Holocene periods that has impact on human occupation in the region. This is followed by a summary of early European history of the study area and a description of the cultural setting of the study, including a discussion on some of the long-term outcomes of European settlement on Aboriginal people. The chapter concludes with a summary of previous archaeological research conducted in the rainforest region.

Environmental setting

The Wet Tropics Bioregion of northeast Queensland covers approximately 12,000 square km. It incorporates approximately the area between Rossville and Cardwell in the east and the Atherton-Evelyn Tablelands to the west (Fig. 2.1). The Tablelands are separated from the coastal plains by a mountain range that includes the highest mountain in Queensland, Mt Bartle Frere, at 1,622 m above sea level. The study area is located on the Evelyn Tableland in the southwest corner of the Tablelands (Fig. 2.1). To the north and west, the Tablelands are enclosed by the low ridges of the Lamb and Great Dividing Ranges respectively. To the southeast the land is broken up by the drainage systems of the Russell and North Johnstone Rivers, which drain into the Pacific Ocean. To the east it falls into the headwaters of the Mulgrave River, which separates the Tablelands from the Bellenden Ker Range. The Tablelands range in elevation from 500–1,200 m, and are located approximately 32 km overland from the present coastline (Birtles 1997a:172). The western side of the Tablelands is drier and cloaked by open woodland, with eucalypt woodlands dominating. Today the regional landscape is rural, characterised by pasture interspersed with remnant rainforest patches and clearings dominated by sclerophyll species.

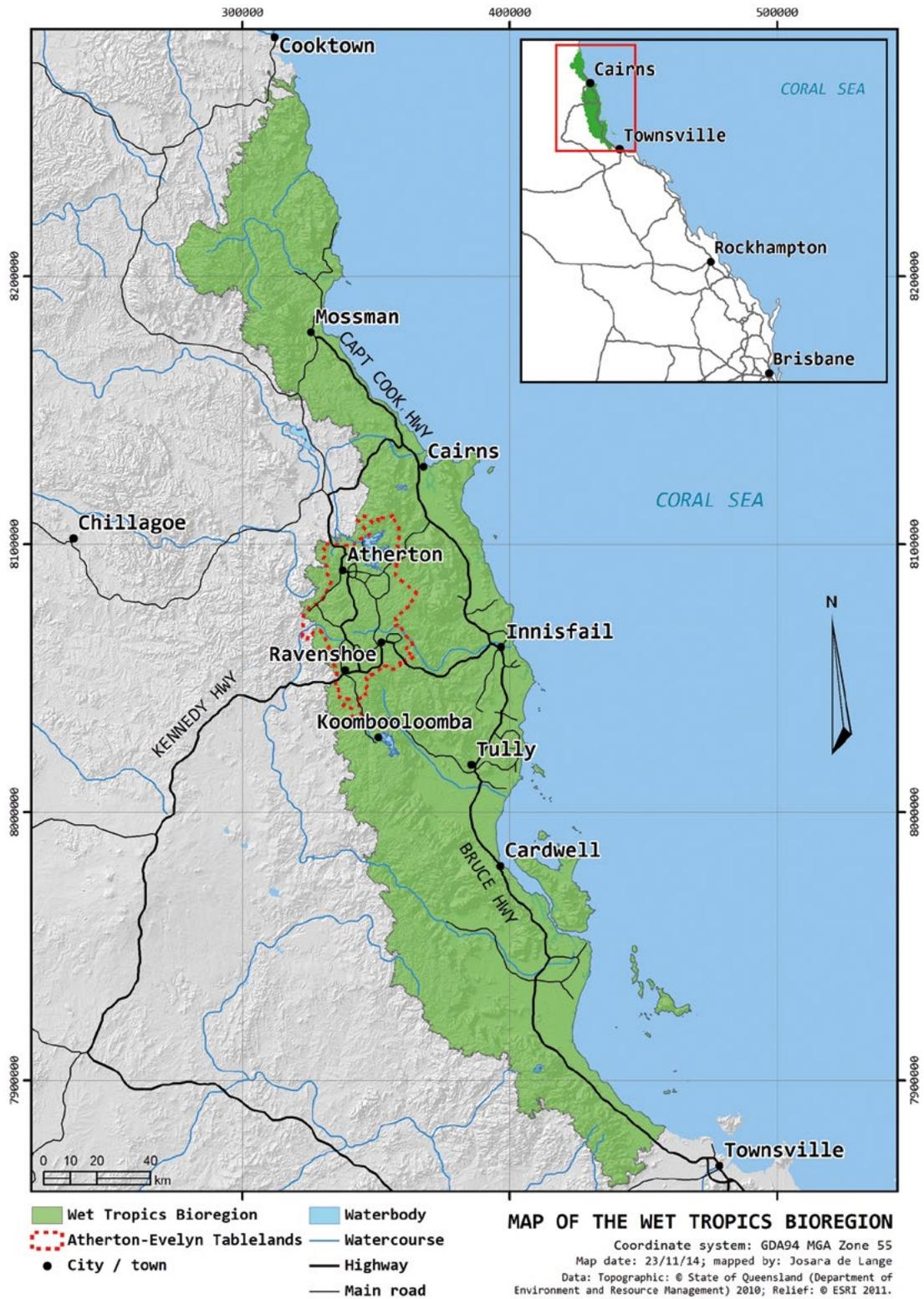


Figure 2.1 The Wet Tropics Bioregion and surrounds in northeast Queensland showing the location of the Atherton Tablelands.

Source: Produced by J. de Lange.

The great biodiversity of the area and the identification of plants of great evolutionary significance (among other factors) resulted in a World Heritage nomination in 1986, and listing as a World Heritage Area in 1988. The World Heritage Area covers around 9,200 square km. Almost all of it is rainforest, representing about 90% of the rainforest in north Queensland, and 40% of the rainforest remaining on the continent (Wet Tropics 2012). In November 2012, the Wet Tropics World Heritage Area's Indigenous heritage values were included as part of the existing Wet Tropics of Queensland National Heritage Listing. The listing recognises that 'Rainforest Aboriginal heritage is unique to the Wet Tropics and is a remarkable and continuous Indigenous connection with a tropical rainforest environment' (Wet Tropics Management Authority n.d.).

The Wet Tropics Bioregion contains the largest continuous expanse of tropical rainforest in Australia (Hopkins et al. 1993:360). The composition of rainforests across the region varies depending on altitude, aspect, rainfall and soils, with some rainforest species crossing the boundary into neighbouring open, *Eucalyptus*-dominated forests. With a combination of topographic diversity, soil variations and local climatic complexity, the region supports a mosaic of forest types (Hilbert et al. 2007:105). Before European colonisation, most of the area was covered in dense rainforest, intermittently broken up by patches of sclerophyll forest often referred to as 'pockets' by early explorers and settlers. Some of the pockets are a result of localised impoverished environmental conditions, including exposure to southeast winds, poorer soils and lower rainfall (Harris 1978), however, many are on basaltic soils where rainforest would be expected to grow. It has been postulated (Harris 1978) that these eucalypt/grass-dominated pockets were maintained by Aboriginal people, using fire and weeding to keep them clear of invading rainforest species. It is evident from historical documents that Aboriginal people used the pockets as favoured campsites, as well as ceremonial, and hunting grounds at the time of European contact (Birtles 1997a; Harris 1978; Mjöberg 1913a, 1918). Quickly realising the desirability of such open spaces within the rainforest as camping grounds and for grazing horses (Birtles 1997a:172), the Europeans took advantage of the clearings, and towns like Atherton (Prior's Pocket) and Yungaburra (Allumbah Pocket) were established on traditional Aboriginal campsites.

The rainforest in the region is characterised by:

the prominence of robust woody lianas, vascular epiphytes, mostly entire leaf margins, many compound leaves of mesophyll size or larger, with drip tips and pulvini, and by a complex flora of both phanerogams and cryptogams. Some of the trees are deciduous (Webb 1959:552).

Tracey and Webb (1975) and Tracey (1982) have developed a detailed structural classification for rainforest and related vegetation types in the Wet Tropics. Thirteen sub-formations of rainforest, as well as 10 types of rainforest with emergent sclerophylls, have been identified. Rainforests in the eastern and southeastern parts of the Tablelands are described as 'Complex mesophyll vine forest' (CMVF or Type 1 a-c rainforests, i.e. true tropical rainforests):

- 1a.** Canopy uneven (20–40 m) and occasionally with scattered emergents (45 m). Many and obscure layers, most crowns occupy less of 1/3 in height, trunks mostly 60–120 cm in diameter with plank buttresses common. Woody lianes, vascular epiphytes, tree palms and wide-leaved fleshy herbs common. Mostly evergreen and mesophyll with many notophylls. Present in very wet to wet lowlands and foothills, very wet and cloudy uplands and as gallery forests in river valleys in moist and dry lowlands. On basalts, basic volcanics and mixed colluvium and riverine alluvium.
- 1b.** Originally in very wet to wet uplands on eastern and southeastern edge of Atherton Tableland but now only well represented at Lake Barrine and Lake Eacham. Trees taller than in 1a (35–55 m) and canopy more uneven. On basalts and basalt-derived pyroclastics.
- 1c.** Local on very wet to wet lowlands and river valleys, canopy 36–42 metres on alluvial deposits (Tracey and Webb 1975; Tracey 1982).

In the western and northern areas of the Tablelands, complex notophyll vine forests (CNVF or Type 5 rainforests, i.e. lower montane or subtropical rainforests) characterise the vegetation:

5. Canopy uneven (20–45 m) with many tree layers, crowns often reaching half way down stems. Trunk sizes are uneven; plank buttresses, robust woody lianes, epiphytes, aroids and gingers are common. Now very restricted on cloudy wet highlands and on moist to dry lowlands, foothills and uplands but before European clearing more common toward the rainfall limit of rainforest, for example on the Atherton Tablelands north and west of Malanda. On basalts (Tracey and Webb 1975; Tracey 1982).

The vegetation of the tropical rainforest region of far northeast Queensland is thus complex and varied, with more than 2,000 tree, shrub and vine species already identified, excluding categories such as herbs, mosses, ferns and orchids. Moreover, the identification of new species continues (Beasley 2006:80).

Because of its geomorphic and climatic settings, the humid tropical rainforest region is characterised by steep gradients in rainfall and temperature. Rainfall is seasonal, with most rain falling during the wet summer season between January and April. Mean rainfall generally exceeds 1,300 mm per annum and annual mean temperatures vary, from more than 25°C on the coastal lowlands to less than 17°C on the highest mountain peaks (Nix 1991).

Past environments

A number of palaeoecological investigations on the Atherton Tableland has resulted in a palaeoecology that is very well understood, at least in an Australian context. Understanding vegetation and climate change through time assists in efforts to interpret human adaptive responses as reflected in archaeological deposits. Analyses of pollen from cores extracted from crater lakes and swamps have provided a detailed history of rainforest dynamics and rainforest–woodland interactions in the late Pleistocene and Holocene periods. At Lynch's Crater on the Atherton Tableland, palynological and sedimentary evidence indicate the replacement of moist Araucarian forests by pyrophytic woodlands dominated by *Eucalyptus* species during the late Pleistocene (Haberle 2005; Kershaw 1986, 1994:408; Moss and Kershaw 2000; Turney et al. 2001). Sedimentological study of terrace deposits on the upper Tully River in the study area suggests slope instability in the terminal Pleistocene, probably due to reduced vegetation cover and fluctuating precipitation. Associated charcoal in layers approximately 10,000 years old points to drier conditions and a more active fire regime in the study area at this time (Cosgrove et al. 2007:154; Nott et al. 2001). Based on charcoal fragments collected from rainforest zones across the region, it has been suggested that *Eucalyptus* woodlands occupied substantial areas of the present rainforest between 27,000 BP and 3500 BP (Hopkins et al. 1993), with *Eucalyptus* woodlands reaching their maximum geographical extent in the period between 13,000 and 8000 BP (Hopkins et al. 1993:357).

The role of past human use of fire on the distribution and composition of tropical rainforests has been a topic of debate since Kershaw identified a charcoal peak associated with rainforest attrition in the pollen record from Lynch's Crater, commencing at 38,000 BP (Kershaw 1976, 1986), and more recently re-dated to 45,000 BP (Turney et al. 2001). It has been suggested that the increase in charcoal evidence reflects the arrival of humans on the landscape ca. 40,000 years ago, however, no archaeological sites investigated in the rainforest region have been dated to the Pleistocene period. Changes detected in rainforest vegetation across the Wet Tropics Bioregion from ocean core ODP-820 in the adjacent Coral Sea further suggest that a regional increase in sea-surface temperature may have influenced regional vegetation changes through its effect on rainfall, with people probably involved in more recent changes (Moss and Kershaw 2000, 2007). Analyses of high-resolution pollen records from Lake Euramoo, also on the Atherton Tableland (Haberle 2005), show that in the period from 16,000 BP until 8500 BP the area was covered by wet sclerophyll forest, with some rainforest patches. The period between 8500 BP and 5000 BP saw a dramatic expansion of

complex rainforest. From around 5000 BP a change to drier rainforests suggested that climatic conditions were drier than at present with ENSO (El Niño Southern Oscillation) activity increasing after 3000 BP and a continuation of dry rainforest expansion (Haberle 2005).

It thus appears that rainforest distribution on the Tablelands has been quite variable through time and that fire has played a role in its varied composition and dynamics (Hiscock and Kershaw 1992). Pollen evidence also suggests that rainforest was patchily distributed until around 8300 BP, and that the spread of rainforest across the Tablelands took up to 2,000 years. Prior to this, the Tablelands were dominated by open sclerophyll woodlands. Hilbert postulates that deep river gullies and high mountains acted as refugia for patches of rainforest, which survived there during the Last Glacial Maximum (Hilbert et al. 2007:104). It has been argued that the Holocene climatic and environmental variability demonstrated in pollen cores from the rainforest region provides a partial explanation for the ‘intensification’ of land use and changes in cultural practices by Aboriginal people in northern Australia (Cosgrove et al. 2007; Ferrier and Cosgrove 2012; Lourandos and David 1998; Tibby and Haberle 2007). Future results from high-resolution palaeoecological studies in the rainforest region are expected to refine the late Pleistocene and Holocene climatic and environmental records, leading to a better understanding of past Aboriginal land use and management and impacts on rainforest biodiversity.

Post-Aboriginal–European contact environments

Tracey (1982) estimated that more than 40% of the original area of rainforest on the Tablelands at the time of contact in the late nineteenth century had been cleared, mainly for cane farming and cattle grazing. Extensive rainforest areas exist today on the hills and mountains, however, only fragments remain on the lowlands, Tablelands and adjacent slopes (Tracey 1982:1). Dense rainforest is also found on steep ridges along the major rivers, around Lake Eacham and Lake Barrine and other historical scenic reserves, as well as in relatively inaccessible areas. The remoteness and unsuitability of these areas for cultivation has contributed to the persistence of rainforest in a modified landscape, however, most of these forests were logged to some extent in the past (Frawley 1990).

European settlement in the study area had its beginnings in gold and tin mining and timber cutting, with explorer and prospector reports paying specific attention to large stands of red cedar (*Toona ciliatis*) or ‘red gold’ as it was popularly called. Expansions in mining, agriculture and pastoralism to the south and west of the rainforest region led the settled colony to expand northwards to include the Tablelands (Ritchie 1989:114). In 1876, James Venture Mulligan made his way to the rainforested Atherton Tableland and reported on magnificent specimens of ‘monstrous’ red cedars and kauri pines (Birtles 1997a:200). Prior to this, the Bloomfield, Daintree, Johnstone and Tully valleys had already been raided by loggers for the red cedar used to construct Cooktown and for export south (Birtles 1997a:200). In an attempt to conserve Queensland’s surviving cedar stands, the Under-Secretary for Lands, W.A. Tully, appealed to the Legislative Assembly in 1881:

We are exhausting the stock of some of the most valuable timber trees more quickly than it can be replaced by the natural growth of young ones, and this is going on all around us. In some districts the cedar has disappeared, and the young trees, before they have attained maturity, are cut down without scruple (Tully 1881:145).

Tully’s report proved unpopular and was dismissed and ignored, and in the same year of his report, cedar-cutters arrived in the rainforests on the Atherton Tableland. Historical documents (e.g. Mjöberg 1918) suggest rainforest clearing accelerated from the beginning of the twentieth century; timber gathering and subsequent land clearing by early settlers, intensive agriculture and mining were all responsible for the deterioration of the rainforests (Ritchie 1989:12). The first European settlers on the Evelyn Tableland were similarly lured by the red cedar and also by kauri (*Agathis* spp.) trees (R. Lockyer, pers. comm., 2005).

European history

The first European exploration party to traverse the coastal rainforests was led by Edmund Kennedy in 1848. After a highly successful ‘performance’ on Sir Thomas Mitchell’s 1846 explorations, Kennedy was appointed to lead an ambitious but ultimately disastrous expedition to Cape York. After a series of unfortunate and unpredictable events, with the rainforest being a major obstacle, 10 party members died, including Kennedy, who was speared and killed on Cape York (Beale 1977). Kennedy’s fate was widely published and is believed to have discouraged European settlement for many years (Ritchie 1989:61).

European arrival on the Atherton Tableland

The documented history of European settlement on the Atherton Tableland can be traced back to the 1870s. Gold prospector James Venture Mulligan travelled along the perimeter of the rainforest west of the Tablelands (Mulligan 1877) on Aboriginal paths, accompanied by Aboriginal guides (Mulligan 1876, 1885a, 1885b, 1885c). The success of Mulligan in navigating the region can be attributed largely to the use of Aboriginal guides; a strategy that was copied by subsequent exploration parties and eventually facilitated the logging of the rainforest after red cedar was discovered. The mining settlement at Herberton was established in 1880 (Fig. 2.1). By 1882, the government opened up almost 50,000 hectares on the Atherton Tableland for settlement, encompassing areas of rainforest and open eucalypt forest (Ritchie 1989). The original wagon roads connecting Cairns and the coastal settlements with Herberton traversed the rainforest via large, open *Eucalyptus*-dominated pockets. By taking advantage of those clearings, small townships soon began to be established on the Atherton Tableland. Prior’s Pocket, a cedar-getters camp, became the chosen site for the new township of Atherton (named after John Atherton, the first European to take up land in the district) and by 1897, Atherton’s population was almost 400 (Toohey 2001:33). By 1910 the railway connecting Cairns to Herberton via Atherton was extended, with a branch that ran through a number of small towns such as Tolga, Yungaburra, Pearamon, Kureen and on to Malanda (Toohey 2001:87). At each stop a pub was built from red cedar logs and wood from other rainforest trees.

The clearing of the rainforest, initially in the form of limited cutting of specific rainforest timbers and later in the form of more extensive logging for agricultural and grazing purposes, resulted in the forced removal and dislocation of Aboriginal people from their traditional hunting and gathering grounds. Early phases of European settlement of the Atherton Tableland (and elsewhere in the rainforest) were impeded by tension and conflict between the newcomers and the Aboriginal people (discussed in more detail in Chapter 3). Added to this, the obstacles of the rainforest environment and the tropical climate also delayed European settlement. The pace of change increased in the early twentieth century as clearing of the scrub for agriculture was made viable by better transport and conflicts with the Aboriginal people were resolved.

First Europeans on the Evelyn Tableland

The first European settlement on the Evelyn Tableland dates to the early 1880s (Smith 2001:v). Evelyn Station was originally owned by government member and gold miner Frank Stublely. The station, located in sclerophyll forest near the edge of the rainforest, included a large tract of land in traditional *Jirrbal* country, the eastern section largely being covered in dense rainforest. Stublely lost Evelyn Station and left the area in 1887 when the land was resumed by the bank and sub-divided into a number of large blocks (Smith 2001:2). More than a decade lapsed before mining giant John Moffatt of Irvinebank acquired the title to a section of land on Evelyn Station in 1898, having been informed that large stands of cedar trees grew on the station. The Mazlin brothers had discovered red cedar trees growing adjacent to two creeks back in 1881, which gave the small settlement its first name—Cedar Creek. The logging of red cedar on both North and South Cedar Creeks began at the turn of the twentieth century (Smith 2001:3). Sometime later, the township at Cedar Creek

was renamed Ravenshoe (Fig. 2.1) after a town in Northumberland, England, where a branch of the family of one of the early settlers had originated (Smith 2001:3). In 1907, Ravenshoe and surrounds were surveyed and divided into 300 blocks. A large contingent of ex-miners and other townspeople from Charters Towers, further inland, applied for the selections and brought their families across from the west (Culloty 1992; North Cedar Creek Settlers Group 1908), while others came from Irvinebank (Fig. 2.1). One of these men was Bill Rogers, John Moffatt's head groom, whom he awarded a gift of land for a lifetime's service (Toohey 2001:65). The land, a large eucalypt pocket on the edge of the rainforest, was at the time the setting of an Aboriginal campsite and a ceremonial ground, and the surrounding landscape the hunting and gathering grounds of the *Jirrbal* peoples.

Cultural setting

Aboriginal group boundaries used in this research are defined on the basis of oral traditions, linguistics and political geography. According to these sources, the name *Dyirbal* is generally given to the Aboriginal language grouping for the southern part of this rainforest region. Linguistic evidence suggests that at least six main groups belonged to the *Dyirbal* language group at contact, all descendants from a single ancestor group (Dixon 1972; Pedley 1992:1; Tindale 1974). Access to land was regulated in terms of access across boundaries, which also defined the extent of a group's territory.

The *Jirrbal* people of Cedar Creek and the upper Tully River

According to oral traditions (Barlow 2001) and linguistic analyses (Dixon 1972), the study area (Fig. 1.1) was, in pre-European times, the traditional land of the *Jirrbal* Aboriginal people. Traditional *Jirrbal* land lies at the western edge of the rainforest region, including both rainforest and more open *Eucalyptus*-dominated areas (Barlow 2001; Tindale 1974). At the turn of the twentieth century, the European population in the study area was relatively small, and large areas of rainforest to the south and east were still untouched by logging and European settlement.

Jirrbal traditions (Barlow 2001) suggest that people used to live in groups comprising of six to eight families spread across the district. Each group maintained their own camp, which was usually located at the fringe of the rainforest (M. Barlow, pers. comm., 2004; L. Wood, pers. comm., 2004). According to *Jirrbal* elders Maisie Barlow and Lizzie Wood, families from one such location, Cedar Creek (Fig. 1.1), would walk down to the Tully Falls on the Tully River to fish for eels and to prepare for the annual inter-group gathering on the coastal lowlands, which took place during the cooler winter months (M. Barlow, pers. comm., 2004; L. Wood, pers. comm., 2004). *Jirrbal* people from Cedar Creek, along with other Tableland people, would walk along the mountain ridges down to the lowlands for such events. In turn, the Cedar Creek people would host coastal and Tableland groups at their own ceremonial ground during the wet season. Historical information demonstrates that *Jirrbal* people were using their traditional campsite and ceremonial ground at Cedar Creek in 1913 (Mjöberg 1918). This traditional campsite is most likely the Aboriginal campsite Eric Mjöberg visited in 1913, which he referred to as 'Cedar Creek' (Duke and Collins 1994; Mjöberg 1913a; Mjöberg 1918; M. Barlow, pers. comm., 2004; V. van der Vliet, pers. comm., 2006).

Contact period campsites

Documentary research in libraries and archives was undertaken in efforts to locate historical information on Aboriginal rainforest culture and, more specifically, information on *Jirrbal* culture and society. The intention was to identify campsites that *Jirrbal* people remembered visiting or living in during their childhoods (pre-1940s) that might have potential for archaeological investigation. Data collected previously by Duke and Collins (1994) and Bird (1999), and in interviews with *Jirrbal* elders and senior Ravenshoe residents, was also consulted. Oral history interviews were carried

out and during these informal interviews with *Jirrbal* elders Maisie Barlow and Lizzie Wood, contact period sites, site locations and *Jirrbal* history were discussed. During the discussions it became clear that, to the *Jirrbal* people of Cedar Creek, European settlement on traditional lands resulted in an abrupt interruption to Aboriginal rainforest settlement and use. The township of Ravenshoe has grown substantially since the late 1940s. European houses and roads have been built where traditional Aboriginal campsites used to be along Cedar Creek, and a golf course was constructed in the 1920s in the adjacent eucalypt pocket (M. Barlow, pers. comm., 2005; V. van der Vliet, pers. comm., 2007).

‘Town camps’

No mission station was established on the Tablelands, with the result that many *Jirrbal* people were instead removed from their traditional lands and relocated to the *Yarrabah* mission south of Cairns, approximately 140 kilometres from Ravenshoe. Others were removed to stations outside of the rainforest region, or forced to live in allocated fringe camps or on reserves near European settlements. Many people were sent to Palm Island as punishment for crimes against European property, and never returned (M. Barlow, pers. comm., 2004). The first place the remaining *Jirrbal* families moved to after having been forced to abandon their traditional campsites along Cedar Creek (M. Barlow, pers. comm., 2004; L. Wood, pers. comm., 2004) was Old Bellamy’s farm (referred to as Edward’s farm in 2004), located on the outskirts of Ravenshoe. This event most likely took place sometime in the early 1920s and Old Bellamy’s farm is where Maisie Barlow was born in 1922. In 1928–29, an influenza epidemic killed almost half the *Jirrbal* people living in Ravenshoe. Many of the survivors, including those at Old Bellamy’s farm, were relocated to a place referred to as ‘The Little Millstream Reserve’ (Duke and Collins 1994:63). The settlement is remembered amongst *Jirrbal* elders and townspeople and was permanently occupied until the late 1940s. The settlement had a number of improvised European-style cottages made from tin:

They erected little tin sheds down there on the Millstream in the 1930s and they [*Jirrbal* people] lived there. They would walk across South Cedar Creek on a little bridge, across the golf course and come into town. They [Europeans] burnt the village down later, got the bulldozer and pushed the houses over and got rid of it all. There are graves down there, many of the old people died living there (V. van der Vliet, pers. comm., 2006).

No evidence of the settlement on the Millstream River remains (personal observation). The graves of many local *Jirrbal* people remain unmarked at the location, which is presently used as a caravan rest stop. The *Jirrbal* settlement on Old Bellamy’s farm, along with many other Aboriginal contact period campsites near Ravenshoe, is located on private land. It was the elders’ wish not to trouble the European residents in Ravenshoe by trying to gain access to private land in the context of this research project. As a result, the focus of the archaeological investigations shifted to contact period sites located within the Wet Tropics World Heritage Area and in forestry zones outside of Ravenshoe.

‘An end to traditional life ways’

The characteristic rainforest ceremonies (discussed in Chapter 3), which had survived European contact, were reported by the *Cairns Post* to have been banned in Ravenshoe and other areas in the mid-1940s. This decision was taken by authorities who claimed that glass and metal objects attached to spears and other weapons made the ceremonies too dangerous (Toohey 2001:156). A desire to prevent large groups of Aboriginal people congregating in one place is probably closer to the truth. Later in the post-contact period, many Aboriginal children were taken away from their families and placed in homes as domestic helpers, and young Aboriginal men and women were hired in various types of employment, often far from their traditional lands in the rainforest (M. Barlow, pers. comm., 2004; L. Wood, pers. comm., 2004).

Memories recalled by *Jirrbal* elders and senior residents in Ravenshoe attest to an end of ‘traditional’ Aboriginal life in the mid-1940s. This process probably started in the 1930s when Aboriginal children were sent out to work on cattle stations away from the rainforest region, breaking the oral tradition of Aboriginal elders passing on traditional knowledge to their grandchildren:

When the children got sent away to work, I was around 12 or 13 [making it mid-1930s], our grandparents could no longer teach us the traditions like they used to do. My grandmother taught me about rainforest food and the role of women, but then we were sent away to work. It stopped when the children left (M. Barlow, pers. comm., 2004).

Despite a history of upheaval and dislocation of *Jirrbal* people from their traditional land, as opportunities arose, many *Jirrbal* people returned to Ravenshoe and other places in traditional *Jirrbal* country. It is these strong ancestral links to traditional land that have allowed for the survival of *Jirrbal* oral traditions.

Previous archaeological research

Indications of the presence of people in northeast Queensland’s rainforest region in antiquity were reported early in the twentieth century. Unusual stone artefacts were recorded in newspaper articles and journals, most of them found by farmers clearing land for agriculture (e.g. Colliver and Woolston 1966; Cosgrove 1979). Surface stone artefact finds are the most commonly recorded archaeological site type in the rainforest region (Horsfall 1996). Thousands of edge-ground axes, *ooyurkas* (t-shaped stone implements), incised slate grinding stones and other stone implements have been recovered from cane fields on the coastal lowlands and on the Tablelands. Some farmers have accumulated impressive stone artefact collections this way (Cosgrove 1984, 1996; W. Jonsson, pers. comm., 2006; R. Stager, pers. comm., 2000).

Speculations on the nature and duration of Aboriginal occupation of the rainforest region date to Birdsell’s and Tindale’s 1938–39 Harvard-Adelaide Expedition (Tindale and Birdsell 1941). Birdsell suggested that these rainforests had been occupied continuously for some 30,000 years. However, palaeoecological studies have shown that the extent of rainforest decreased significantly in the late Pleistocene, and only returned around 8,000 years ago. As a result, the Birdsell model is now only of historical importance.

Bare Hill

The first archaeological excavation in the rainforest region was carried out by Richard Wright at Bare Hill (Fig. 1.1), a granite rock shelter in sclerophyll forest, close to the western margins of the rainforests near Mareeba on the Atherton Tableland (Wright 1971). No dates have been published from the Bare Hill site (Horsfall 1996:176; R. Wright, pers. comm., 2007). The excavations revealed a few flaked stone implements, interpreted to be tools, and large quantities of unmodified quartz flakes. Pieces of worked shell, bone and charcoal were also recovered. Wright concluded that people using the shelter in the past had limited access to tractable stone material and imported marine shells for flaking (Wright 1971:139). Bones from rainforest animals were recovered and argued as evidence for Aboriginal people exploiting the rainforest for food.

Herbert and Burdekin Rivers project

An archaeological research project was carried out by Helen Brayshaw in the Herbert-Burdekin district, located in the southern extremity of the Wet Tropics Bioregion (Fig. 2.1) (Brayshaw 1990). In *Well Beaten Paths*, Brayshaw presents the results of an ethnographic and archaeological study, providing detailed descriptions of ethnographic collections from the Herbert-Burdekin area, summaries of ethnohistorical sources and the results from four archaeological excavations. A wide range of faunal and cultural remains were recovered, although bird and plant remains were completely absent,

apparently as a result of unfavourable conditions of preservation (Brayshaw 1990:195). Human bones were recovered in two of the rock shelters investigated. Brayshaw (1990:195) concluded that the varying composition of the remains excavated indicates that these sites were used selectively and perhaps for particular social activities. All four sites are dated to within the last 2,000 years.

***Jiyer* Cave and Mulgrave River 2**

In the early 1980s, John Campbell began excavations at *Jiyer* Cave, located in dense rainforest on the Russell River (Fig. 1.1) (Campbell 1982). Nicky Horsfall continued the excavations at *Jiyer* Cave and results from her archaeological investigations show increases in human occupation intensity, subsistence specialisation and increased site occupation through time, with the earliest evidence for human occupation appearing around 5,000 years ago (Horsfall 1987, 1996). Quartz is the dominant stone raw material. Plant remains, in the form of carbonised nutshell fragments of both toxic and non-toxic varieties, were also identified. The period of most intensive cultural activity started around 2500 BP, peaking in the last 1,000 to 1,500 years (Horsfall 1996:180–181). Horsfall (1987) also conducted a small excavation at Mulgrave River 2 (Fig. 1.1), an open rainforest site. Here, quartz was again the most common raw material, and plant remains were also recovered.

Horsfall's results raised questions about rainforest occupation on a regional scale (Cosgrove 1996). However, further investigations into the antiquity of the *Jiyer* Cave archaeological deposits, and rainforest occupation in general, supported previous findings with no evidence of earlier human occupation detected (Cosgrove and Raymont 2002). Stone artefacts made on quartz, basalt and crystal quartz were the dominant raw materials represented and the organic remains included fish bones, unidentified nut shell fragments and pieces of egg shell from the scrub turkey (*Aletura lathamii*). In addition, European-manufactured artefacts were also recovered consisting of 18 pieces of glass, some of which have been flaked, one piece of clay pipe and one metal fragment. These artefacts suggest that *Jiyer* Cave continued to be used by Aboriginal people in the contact period. Archaeological excavations at the Mulgrave River 2 open site and the Mourilyan Harbour midden site (Fig. 1.1) (Cosgrove and Field 2004), both located in coastal lowland, returned chronologies similar to *Jiyer* Cave. None of the sites exceeds an antiquity of 5000 BP and the evidence suggests a late period of intensive cultural activity, especially the last 1,000 to 1,500 years.

Russell River and North Johnstone River surveys

The next phase of investigations took place in the late 1990s, when Cosgrove and a team of students and traditional owners carried out archaeological surveys in remote rainforest locations on the Atherton Tableland. Open sites and rock shelters were recorded on the Russell River (Cosgrove 1997) and the North Johnstone River (Cosgrove 1999) (Fig. 1.1) Stone artefacts and fragments of marine shell (*Polymesoda coaxans*) were located on the surface of unexcavated rock shelters on the North Johnstone River. Artefacts of European-manufactured raw materials, some of which could be dated to the late nineteenth century based on manufacturing style (Cosgrove 1999) were also located. One hypothesis that presents itself is that the presence of historical artefacts in traditional sites located in remote rainforest locations may indicate that more secluded rainforest areas continued to be used by Aboriginal people in the early contact period, perhaps as a way of avoiding contact with Europeans.

Archaeological research on the Evelyn Tableland

Archaeological research in the rainforest region between 2002 and 2005 (Cosgrove et al. 2007) expanded the understanding of the archaeological record, especially on the Evelyn Tableland. In addition to exploring the possibility of rainforest occupation before 5000 BP, Cosgrove and Field (2004) also aimed to understand, through archaeological investigations, the role played by toxic plant foods in the development and establishment of permanent Aboriginal rainforest occupation. During the course of the project, surveys and excavations were conducted. On an exposed band of

soil around Koombooloomba Dam on the upper Tully River located approximately 40 km south of Ravenshoe (Fig. 1.1), 131 new artefact locations were recorded, including 31 artefacts scatters, 66 hatchets and 34 broken axes (Cosgrove et al. 2007). Also noted were fragments of worked glass as well as fragments of incised slate grinding stones (*morahs*) and top stones (*moogis*), both thought to have been used in the context of plant food processing (R. Cosgrove, pers. comm., 2005). Three archaeological sites were excavated in this area (Fig. 1.1). Two sites, Urumbal Pocket and Goddard Creek, are located at Koombooloomba Dam and are both periodically exposed during low water levels. The third site, *Murubun*, is a large granite overhang located in sclerophyll forest bordering rainforests to the northwest of Koombooloomba Dam. It was first identified by Horsfall (1988) in a cultural heritage survey. Quartz is the predominant stone raw material at all three sites, but small amounts of slate, rhyolite and fine-grained materials are also present. The presence of these materials suggests contact with people living in areas to the west of the rainforest region, where acid volcanics dominate the regional geology (Henderson and Stephenson 1980) or, alternatively, a periodic use of two different environments by the same group of people. Fragmentary plant remains were also consistently present at these sites and more than 20,000 pieces of carbonised nutshell from a variety of toxic and non-toxic rainforest plants were recovered from the excavations (Cosgrove et al. 2007:160–161). The chronology from these three sites consistently show low level rainforest occupation before 2000 BP, after which occupation became more intensive and probably permanent (Cosgrove et al. 2007).

Summary

Our current understanding of pre-European Aboriginal rainforest occupation is relatively fragmentary. The research presented here draws on multiple lines of evidence to enhance our understanding of long-term Aboriginal rainforest occupation, including, for the first time, the early contact period. Archaeological sites investigated across the rainforest region show evidence of occupation from about 5000 BP with an indication of intensive cultural activity in the late Holocene, especially in the last 1,000 to 1,500 years. Oral traditions and historical documents suggest that the *Jirrbal* people were amongst the last Aboriginal people in the rainforest region to come into direct contact with Europeans. The archaeological record demonstrates that some remote traditional sites continued to be used after the time of European settlement, which allowed aspects of traditional rainforest use to survive into the recent past.

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