

The Palmer Goldfield

JILLIAN COMBER

The Palmer Goldfield is a nationally significant historic goldfield located in the Cape York Peninsula, Far North Queensland. It was primarily an alluvial field worked by the largest contemporary Chinese population in the colony with reef mining being undertaken by European miners. This paper will briefly detail the history of both the alluvial and reef mining and briefly describe the remaining physical evidence of such activities.

In 1873 gold was discovered on the Palmer River. It was estimated that within two years 9 000 people had come to try their luck on the goldfields, 7 000 of those being Chinese. This population eventually reached 20 000.¹ The Warden's Report for 1877 shows a total of 19 500: 18 000 Chinese and 1 500 Europeans.

Initially European miners panned for gold but after 1875 their interest centred on the gold rich quartz reefs in the Maytown region. The Chinese, however, continued successfully with the alluvial mining, ensuring the highest yield in the colony from 1877–1879. By the turn of the century the field was virtually abandoned.

As a result of this brief but intensive period of mining, many important archaeological sites now remain which provide an insight into past mining techniques and living conditions on a remote mining field and particularly provide information on the Chinese in Australia.

To protect these important historic sites the Palmer Goldfields Reserve (known as R16) was declared in 1986 in order to retain a sample of the historically significant remnants of the Palmer River gold era of the 1870s to 1890s. This Reserve is managed jointly by the Queensland Department of Environment and the Queensland Department of Mines and Energy. R16 does not cover the entire goldfield. It comprises only 16 200 hectares out of the total field of 660 000 hectares.

Despite the significance of the field, it has not been subjected to a detailed systematic survey or assessment. Two preliminary management studies were commissioned by the Department of Environment. The first study was a desktop study to record known sites on the Reserve and the second was a field assessment of those sites. Other studies have included academic research and environmental impact assessment conducted prior to the granting of mining leases.²

This paper draws on the previous research conducted only on the Palmer Goldfield Reserve. It should be noted that as there has not been a comprehensive and systematic archaeological examination of the Reserve or a detailed recording of individual sites, information contained in this paper is of a preliminary nature. Detailed analysis has not been undertaken, so that detailed comment cannot be provided at this stage.

This paper will first provide locational details and a description of the Palmer Goldfield followed by a brief history and a brief description of remaining site types.

LOCATION AND DESCRIPTION OF THE PALMER GOLDFIELD

The Palmer Goldfield is located in the Cape York Peninsula, Far North Queensland, approximately 180 kilometres west north west of Cairns and 120 kilometres south west of Cooktown (Fig. 1). The total goldfield which was gazetted on 30 May 1884 comprises approximately 6 600 square kilometres (660 000 hectares). Access routes into the field are unsealed and very rough. The area is isolated with no facilities. The Palmer was described as 'the most remote and harshest field worked by early Australian diggers'.³

The goldfield is located in a rugged, isolated area of steeply incised ranges with seasonal streams feeding the Palmer River. The Palmer River flows west to eventually join the Mitchell River before flowing into the Gulf of Carpentaria.

The area is characterised by innumerable ridges and incised creeks. The soils are shallow and rock outcrops are numerous and vegetation sparse. This landscape formed on hardened mudstone and greywacke of the Hodgkinson Formation. During a period of upheaval over 300 million years ago fluids were forced into faults to form the gold bearing quartz lodes of the district. Erosion of these gold bearing quartz lodes over thousands of years ensured the accumulation of heavy gold particles in the downstream creeks. To the north of the field is a sandstone plateau known as 'The Conglomerate Range' which is capped by the Dalrymple Sandstone, Gilbert River formation of horizontal sandstone and conglomerate deposited approximately 100 million years ago. Gravels deposited at the base of this formation also contain gold.⁴

HISTORY

A government-sponsored expedition led by William Hann in 1872 reported traces of gold in the bed of a river which he named Palmer after the Colonial Secretary of the day.⁵ The following year James Venture Mulligan's party reported that payable gold could be found on the Palmer and the rush was on.⁶ The Palmer Goldfields proved to be an alluvial field of

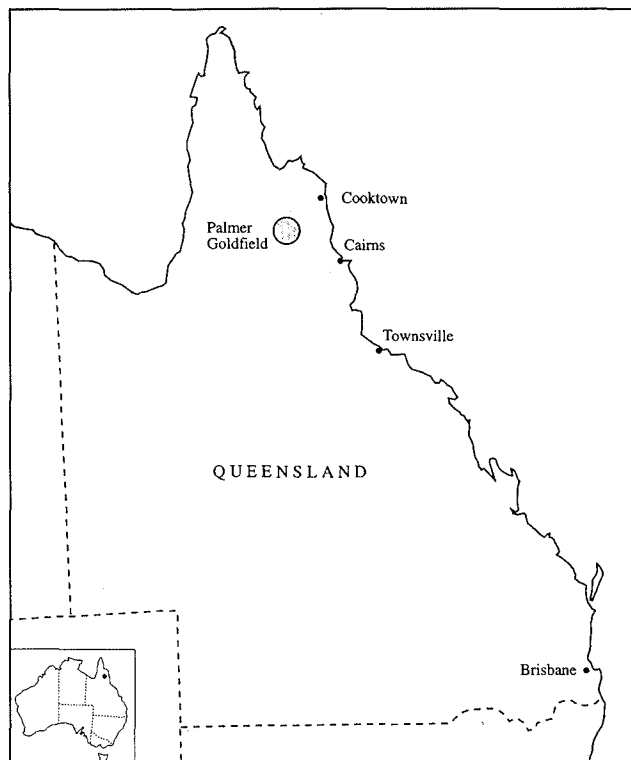


Fig. 1: Location of the Palmer Goldfield.

extreme wealth yielding a reported 40 tons of gold.⁷ However, the Palmer was significantly different from other Australian goldfields in several respects.⁸

- (a) It was a rich alluvial rather than reefing field.
- (b) It was beyond the limits of settlement.
- (c) The Aboriginal people, Koko-minni, were still in possession of their territory when the miners arrived.
- (d) The Chinese population on the Palmer Goldfield eventually far outnumbered the European population, becoming the largest Chinese community in the colony.
- (e) Transport difficulties rendered the field nearly inaccessible and increased all costs associated with the field.

The Palmer was an extremely rich alluvial field producing gold over a relatively short boom period from 1873–76. Between 20 000 and 30 000 people flocked to the field which was an isolated area beyond the limits of settlement (one report stated 'the actual number [as] being over 50 000').⁹

Whilst far greater numbers had rushed to the New South Wales and Victorian diggings, they arrived after the pastoralists, not before, as on the Palmer. Thus the Palmer rush preceded any form of Government authority or administration. There were no roads, railways, established communication links or stores.¹⁰

The Aborigines, Koko-minni according to Roth or Kokojelandji according to Tindale,¹¹ were still in possession of their land and did not wish to yield to the European onslaught. On other goldfields the pastoralists who preceded the miners brutally dispossessed and repressed Aboriginal occupants prior to the diggers' arrival. On the Palmer however, the diggers determinedly invaded Koko-minni territory. In their rush for gold they disdained any form of conciliation, preferring direct and retaliatory action towards any Aboriginal resistance. The Government also did little to avoid conflict or promote harmonious relations. The first official party, blazing a track through to the Palmer in September 1873 'shot some Blacks' at the Normanby River crossing.¹² One of the party, W. I. Webb, who reported this incident said 'he did not know why as they had not interfered with the prospecting party'.¹³

The official Government manner in dealing with the Aboriginal defence and resistance was to station a contingent of mounted police at Cooktown during the first official expedition and later in the Palmerville area. Such action only exacerbated violent European-Aboriginal clashes. The dispossession was not easy, however, with the Koko-minni mounting a reasonably successful guerilla warfare campaign over a ten year period.¹⁴

The major alluvial activity was short lived on the Palmer. Despite its promising start the isolation and harsh climatic and living conditions made gold recovery expensive and difficult. Its remoteness from any settlement made transport a major problem.

After the first reports of payable gold the Government acted immediately to overcome the absence of access and official administration. In 1873 an official expedition led by Gold Commissioner Howard St George was despatched to establish the port of Cooktown and roads and communication routes to the Palmer.¹⁵

The first settlement established was Palmerville (initially Palmerstown) with Maytown (initially known as Edwardstown) later becoming the focal point for business and administration on the Palmer.¹⁶ Four days after his arrival at Palmerville, St George wrote glowing reports of the wealth of the field.¹⁷

However, despite the government's attempts to provide suitable access, transport costs were high and at times transport ceased completely. During the dry season there was insufficient water and grass to feed draught horses. Few

European miners won sufficient gold to offset these charges. After the first few years of relative affluence on the field it was estimated that the average earnings of European alluvial miners were barely £1 per week, which was about a third of a skilled worker's wage at that time.¹⁸ Malnutrition and infectious diseases were also common.¹⁹

Within three years the majority of Europeans had left the field whilst the Chinese population (mainly from Canton) increased.²⁰ In 1877–1878 the Chinese numbered 18 000 whilst the European population had declined to 1 500.²¹ This was the largest Chinese community in the colony.²² The Chinese method of working co-operatively proved successful. Their operational methods were described as 'the safest and surest'.²³ Co-operative cradling featured two people digging, two carrying washdirt, two at the cradle, and the remainder of the group bagging gold.²⁴ Their claims were usually worked two or three times. The fact that the Chinese on the Palmer were restricted to ordinary claims although they qualified for extended claims would have contributed to this industrious reworking of claims.²⁵ The Chinese were also discouraged from reef mining. Yet even in the field's decline from 1877–1879 when the number of Chinese on the field was at its highest, due to the endeavours of the Chinese alluvial miners the Palmer retained the highest yield in the colony.²⁶

Reefs sufficient to sustain profitable underground mining were sought by the Europeans. Despite all expectations, the Palmer geology continued to thwart such hopes. Only three principal quartz reef systems were discovered. These reefs were in the Maytown area where underground mining continued energetically for ten years and intermittently for another sixty years. The reefs of the Palmer were not suited to profitable large scale mining. Due to the geological peculiarities of irregular deposits of very fine gold, considerable money and energy had to be expended to extract a small amount of payable gold. The costs of mining and ore treatment were further increased by the climatic obstacles, isolation and labour shortages. According to Bell, reef mining on the Palmer became the most expensive in Australia.²⁷ Poor management also burdened the company-owned Palmer mines. Capital invested was rarely sufficient so that the mines worked inefficiently with inadequate machinery and equipment.²⁸

Initially mills were established to service mines in the area, with a fee being charged for crushing. Eventually the cost of transportation from mine to mill and the cessation of transport during the wet or exceptionally dry seasons (due to lack of feed for the teams) led to many mines, even the smaller ones, setting up their own stampers. The first period of underground mining was short. The first mill opened in 1876 and by 1884 the significant Maytown mines had closed down, although some later re-opened.²⁹

During its hey-day, Maytown, which became the administrative and business centre of the field in 1875, boasted three banks (opened in 1876), a post office, police station, Warden's office, school, a butcher, blacksmith, hospital, several stores and hotels and a billiard saloon.³⁰ Other smaller settlements, containing stores, hotels and boarding houses, were established on the Palmer Goldfields to service miners remote from Maytown. The Ida (or Idatown), German Bar, Echotown and Gregory were representative of these small centres.

In 1893 the Palmer Mining Warden and Mining Surveyor were withdrawn and the field was administered from the Cooktown office.³¹ The population had dwindled to 386 (216 Europeans and 170 Chinese). By 1900 the field was even less populated.³² A brief but unsuccessful revival of the field occurred during the 1930s. The Louisa mine closed during the Second World War and the last remaining family, that of Mrs Parsons, who operated the post office, left Maytown at the end of 1945 when the post office closed.

REMAINING PHYSICAL EVIDENCE

The very brief but intensive period of occupation of the field has left a high density of sites. Over 200 individual sites have been recorded within the Palmer Goldfield Reserve. Every creek and gully shows evidence of alluvial mining. Domestic sites are clustered around mined gullies. Sometimes only one or two domestic sites can be discerned whilst in many cases half a dozen or more can be seen with a cooking oven and several graves nearby. Apart from Maytown and Palmerville, smaller settlements were established which contained shops, houses, stores, hotels, boarding houses, cooking ovens, forges and cemeteries whilst cooking ovens and forges are spread across the field, often in isolation. Roads, causeways and even a rifle range were constructed.

Associated with these sites is a range of artefacts such as broken bottles, glass and pottery, including Chinese glass and ceramics, metal fragments from cooking utensils, shovel blades and portable mining and milling equipment such as cradle plates, die shoes, stamps, firebars etc. Such artefacts are located in association with domestic and/or industrial sites and are strewn across the field.

The segregation on the field of Chinese from Europeans can be discerned from the available evidence. From a very preliminary analysis of the 205 sites recorded in 1991, only 34 of those sites appear to be solely of European origin. These were reef-mining sites containing shafts, adits, mining equipment and European style housing remains. 18 were sites used by both Chinese and Europeans (such as townships, roads, bridges and cemeteries); nine were Aboriginal sites of campsites, graves and a ground edge axe; eight were unknown and 136 sites were of Chinese origin.

Following is a brief description of some of the site types recorded on the field. However, for a full description of site and artefact types the reader is directed to the *Palmer Goldfield Heritage Sites Study (Stage 2)*.³³

Alluvial

Alluvial mining sites comprise the bulk of the sites located on the Palmer Goldfields. They can vary from small pits beside creeks or gullies to extensive mining of the creeks or gullies. This is indicated by the neat stacking ('stone pitching') of the unwanted stone along the creek bank and often with water diversion channels and reticulation to direct water away from areas to be worked and races and dams to provide water for cradling, or to hold the water back from creekbeds being worked.

Machinery

The amount of mining machinery remaining on the Palmer Goldfield is unusual. Its relatively intact state is also unusual. Such examples of nineteenth-century mining equipment do not exist on other fields in Australia. The remains of single pieces of machinery may exist in isolated areas such as the Flinders Ranges in South Australia, the Eastern Highlands of Victoria or inaccessible areas of the Northern Territory but nowhere else in Australia is there such a large collection of intact *in situ* nineteenth-century mining equipment. It represents a very important on-site museum. For example, the variety of boiler types is outstanding. There are five *in situ* Cornish boilers, a return firetube boiler at the Mabel Louise, and portage boilers and vertical boilers at other sites. The existence of five Cornish boilers in their brick beds is particularly important. It would be surprising if there were even twenty *in situ* Cornish boilers remaining on mining fields in Australia.³⁴ Figures 2 and 3 show an example of the machinery to be found on the field. A full description of mining machinery on the Palmer Goldfield is provided by Peter Bell's *Gold, Iron and Steam*.³⁵

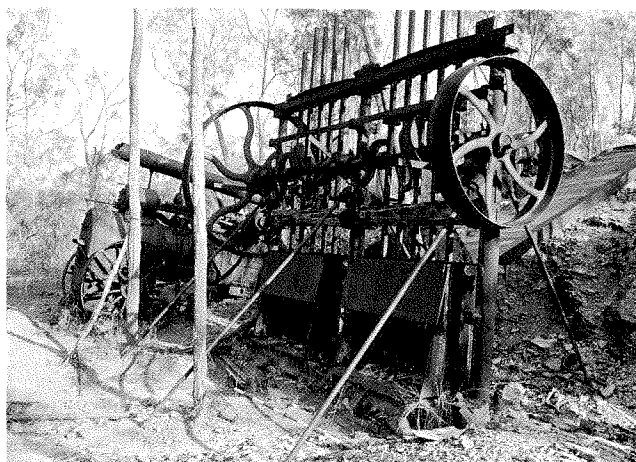


Fig. 2: The Enterprise Battery.



Fig. 3: Cornish boiler at the Alexandra Mill.

House and Building Sites

The sites of houses and other buildings such as hotels are indicated by slate flagstones, which were probably carried from the river and placed side by side to form floor surfaces and by the remnant stone foundations (Fig. 4). These foundation remnants are usually from two to five courses of small to medium stones. No extant building sites have been recorded, although the remains of two stone huts (Fig. 5) and a corrugated iron humpy have been recorded. It is assumed that the walls of most of the buildings were corrugated iron or bark, although the physical evidence for it is not evident. Corrugated iron would have been removed and reused elsewhere when the occupants moved on. Corrugated iron was also expensive on the Palmer at £1 per sheet, putting it out of reach of the average miner.³⁶ The Hann Divisional Board Rate Book 1880–1884 and Valuation Register 1883–1887 provide some useful information on building fabric, although descriptive anomalies do occur.³⁷ In 1880 wooden constructions of bark or slab seemed to predominate. Out of 368 entries, 120 were bark and 65 slab. In the 1883–1887 Register, the term 'slab' seems to be replaced by 'wood'. In 1883 out of only 76 entries, 50 structures are listed as wood and iron, 20 wood and bark, one wood and grass and 18 wood and iron. The brick structure at The Ida was no longer recorded. These figures provide some indication as to why extant buildings no longer exist. Natural materials such as wood, bark and grass deteriorate, whilst corrugated iron would have been removed for use elsewhere. The temporary nature of the house sites has made it difficult for fieldworkers to differentiate them from tent sites.

In China the positioning of houses and other buildings was (and still is) influenced by the traditional concepts of '*feng shui*'. *Feng shui* means 'wind and water' which are considered



Fig. 4: Stone foundation of a house site.



Fig. 5: Remains of a stone hut.

to be the forces which shape a landscape and have the power to affect human fortune. *Feng shui* is believed to be a living force in the environment and if followed, the three blessings of health, happiness and prosperity can be achieved.³⁸ An ideal position for siting a house or village is considered to be on a slope, protected from evil forces by mountains to the north and open to the south. In addition, two streams should have their confluence in front of the site, gently flowing away to the sides.³⁹ Housing should also be terraced so that not all neighbours look down upon the house. Streets must not be straight, to prevent access of evil spirits.⁴⁰

The majority of the domestic sites recorded to date are sited at the base of a spur (ie on a slope, with a mountain or hill behind and the confluence of two creeks in front) and are often terraced. Whether environmental necessity, *feng shui*, or a combination of both influenced such siting is uncertain. The Palmer area is hilly country incised by streams. The alluvial miner needed to be near the creek or gully bed, therefore camping above the gully at the base of the spur provided easy access to the mining site.

Whilst the Chinese miners probably could not totally discard entrenched beliefs, to what extent *feng shui* influenced decisions on hut locations has not yet been discerned in respect of the Palmer Goldfield. More detailed archaeological analysis may provide further insights.

Retaining Walls

Several stone retaining walls have been recorded. These walls were used on dams, roadworks, a rifle range (Fig. 6), house foundations etc. They are dry stone rubble work, and although similar to 'stone pitching' they have been referred to as 'retaining walls' to distinguish them from the stonework purely related to the quest for alluvial gold.

Stone Pitching

Stone pitching is a feature of alluvial sites (Fig. 7). Unwanted stone from the creek bank was neatly stacked by alluvial miners along the sides of the creek or gully as they dug for washdirt. It was also used to dam the creek being worked. Stone pitching is often quite spectacular, forming neatly stacked stone walls several metres high.

Chinese Graves

Chinese graves were marked by a cairn of stones the width of the grave. Some of the graves contain a small mound which was most obvious near the cairnstones. Many of the graves would have had marker stones with Chinese characters placed on the cairnstones. However, only one grave has been recorded with such a stone. These marker stones have fallen prey to souvenir collectors.



Fig. 6: Maytown Rifle Range butt.



Fig. 7: Stone pitched gully.

In the vicinity of the Chinese graves are often large depressions which appear to have been exhumed graves. Although Kirkman's examination of official records revealed that only a 'few were exhumed at a later date',⁴¹ it would seem that a large number of the remains were removed, as over 60 exhumed graves have been recorded on R16 alone. The exhumed remains were possibly placed into large urns and taken back to China for reburial. Although official permission was required for exhumation, many of these removals may have been unrecorded. A large urn with human remains which was removed from the Palmer Goldfield earlier this century is now located in the Cooktown Museum.

These exhumed graves have been identified by large depressions with a size equal to the length and width of an adult body. A mound of dirt is often nearby and sometimes artefacts.

European Graves

Graves mounded for the full length of the body with a perimeter of stones and occasionally with small shales pressed into the mound have been assumed to be European. With the exception of some of the graves in the Maytown cemetery, the European graves did not have headstones.

Charcoal Kilns

Three structures have been recorded that are known locally as 'charcoal burners' (Fig. 8). They are large oval shaped, domed structures made from a clay and gravel mixture. One of the structures has a stone base course. Oral tradition states that these burners or kilns were used for making good clean charcoal for blacksmithing purposes. However, evidence concerning their use appears to be lacking and at this stage, definitive statements about their use cannot be made.

Apart from a similar structure recorded at Brock's Creek in the Northern Territory, the author is unaware of any other similar structures recorded in Australia. Brock's Creek is associated with a wide range of activities related to both Chinese and European settlement including alluvial and reef mining. A 'Chinese oven of igloo form, about 2.5 metres long, and in height' was recorded as being used for cooking food.⁴² In the United States, structures very similar in size and shape to the ones recorded on the Palmer have recently been shown to be bread ovens.⁴³

These structures are very important. Further research needs to be conducted to clarify their use. Such research needs to be field orientated and include oral histories from descendants of Palmer residents. If these structures are charcoal kilns, they

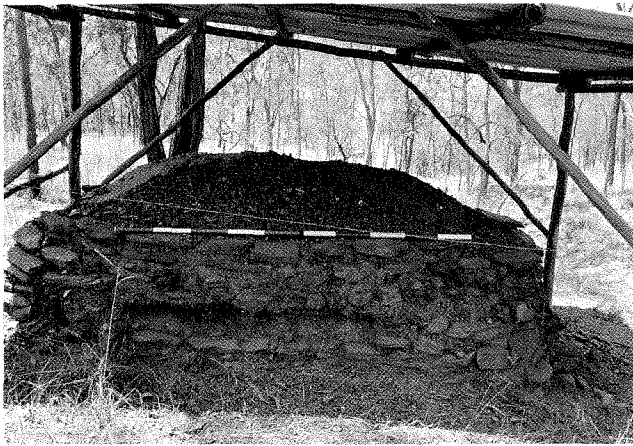


Fig. 8: 'Charcoal kiln' near Butchers Creek.



Fig. 9: Exterior of Chinese oven near Cradle Creek.



Fig. 10: Interior of Chinese oven.

would be the only known charcoal kilns in Australia. If they are bread or food ovens, further questions would then need to be answered concerning who used them, how they were used, when they were constructed and the significance of their location, which is not close to a known settlement.

Chinese Round Ovens

Several round stone structures known locally as Chinese ovens have been recorded (Figs 9 and 10). They are constructed of stone with a mortar of antbed or clay and generally have a small opening at the base. None of the ovens recorded appeared to be complete structures, in that the walls were collapsing. Therefore, it could not be discerned whether these structures had at one stage been roofed. Several of the structures recorded did contain broken and charred bone material either inside or surrounding the structure. Broken and charred bone material mixed with ash was also noted on the slope below several of the ovens, where it had probably been raked out. However, Ian Jack (pers comm 1992) reports a round oven at Mookerawa near Stewart Town, NSW, which was located near a Chinese hut and was used for ore burning. At Pine Creek in the Northern Territory Bell recorded a slightly tapered cylindrical Chinese oven of uncut stone in clay with a vent at the base containing two 24 millimetre octagonal steel rods as lintels.⁴⁴ The external dimensions of this oven were approximately 1.91 metres diameter at the base narrowing to 1.6 metres at the top and 1.1 metres in height. The vent at the base measures 34 centimetres wide. These dimensions fall within the range recorded on the Palmer. For a variety of reasons Bell believes that this oven was used for cooking.⁴⁵

The majority of the ovens recorded on the Palmer were located near habitation sites, which indicates that they were more likely to have been used for cooking and in addition several of the ovens did contain the remnants of shattered bone. Combined with the oral traditions it would seem that these ovens may have been used for domestic cooking, rather than for burning ore. Burning ore in one of these ovens would have been impractical given the difficulty of removing the ore unless shelving was provided and because if the ore was placed in coals it would probably explode. However, further work needs to be conducted to confirm the use of these ovens.

Forge Sites

The remains of several square and rectangular stone structures have been identified as forge sites. The size of these structures varies but they are approximately 1.5 metres by 1 metre and of varying heights depending on the state of deterioration. They were generally filled in with clay and sand to raise the structure to an appropriate working height and to provide a bed for the fire. They are not always in close proximity to a mine site.

Most forge sites recorded on other mining fields in Australia were close to a reef mining or mill site, and not scattered around the field as on the Palmer. In New Zealand Ritchie details how the Chinese were totally self-sufficient and maintained and sharpened all their own implements.⁴⁶ They laughed at European miners unable to sharpen their own tools, who had to take them into the town to a blacksmith. The situation would appear different on the Palmer. In the 1879 Warden's Report for the Palmer Goldfield, it was stated that the Chinese were 'getting gradually in the way of doing little tasks, such as blacksmithing, in their camps, and which formerly were performed by Europeans'.⁴⁷ The performing of these 'little tasks' may have been a way in which to supplement their income in response to the downturn in gold production or a way in which to save money.

CONCLUSION

The Palmer Goldfield is a nationally significant area of importance to all Australians. It led directly to the development of Cooktown and the settlement of Far North Queensland. It contained the largest contemporary Chinese population in the colony. The Palmer still contains many significant archaeological sites and provides excellent research and interpretative opportunities plus potential for tourism.

To provide a complete picture of the Palmer Goldfield further detailed archaeological assessment needs to be undertaken. Individual sites briefly recorded to date need to be recorded and assessed in detail and a systematic recording of the field is required. Once such research is undertaken a more complete picture of the people who lived and worked on the field, in particular the Chinese, may emerge.

NOTES

- 1 *Golden Palmer*, heritage map held by Queensland Department of Resource Industries (QDRI) and Queensland National Parks and Wildlife Service (QNPWS).
- 2 Kirkman 1980; Jack, Holmes and Kerr 1984:51–58; Bell 1987; Grimwade 1990; Comber 1991.
- 3 QDRI and QNPWS *Golden Palmer* map.
- 4 Levingston 1980:10–11; QDRI and QNPWS *Golden Palmer* map.
- 5 Clarke 1982:24.
- 6 Mulligan 1875:10–11.
- 7 Bell 1987:5.
- 8 Kirkman 1980.
- 9 Dunstan 1913:813.
- 10 Kirkman 1980:113–114.
- 11 Roth 1899; Tindale 1974.
- 12 Stephens 1973:1.
- 13 Stephens 1973:1.
- 14 Kirkman 1980:124.
- 15 Kirkman 1980:115.
- 16 Kirkman 1980:116; Bell 1987:5.
- 17 St George to Sec Works & Mines, Queensland State Archives (QSA) Wor A77 Letter 74/158.
- 18 Bell 1987:5.
- 19 Bell 1991.
- 20 Bell 1987:5-6.
- 21 Kirkman 1980:125.
- 22 Bell 1987:6.
- 23 *Queenslander*, 19 March 1879.
- 24 *Queenslander*, 19 March 1879.
- 25 Kirkman 1980:126.
- 26 Annual Report of the Mining Warden to the Queensland Legislative Assembly in *Queensland Votes and Proceedings (Annual Report)*, 1879.
- 27 Bell 1987:7.
- 28 Bell 1987:7–8.

- 29 Bell 1987:8.
- 30 Bell 1987:8.
- 31 Bell 1987:9.
- 32 *Annual Report* 1897–1900.
- 33 Comber 1991.
- 34 Peter Bell, pers comm, 1992.
- 35 Bell 1987.
- 36 Bell 1987:127.
- 37 QSA 1/23412; QSA 1/23413.
- 38 O'Brien with Kwok Man Ho 1991:1–2.
- 39 O'Brien with Kwok Man Ho 1991:69–70.
- 40 Ritchie 1986:56–57.
- 41 Kirkman 1984:202.
- 42 Bell 1983:120.
- 43 Wegars 1991:37–60.
- 44 Bell 1983:29–30.
- 45 Bell 1983:29–30.
- 46 Ritchie 1986:429.
- 47 *Annual Report* 1879:599.

BIBLIOGRAPHY

- BELL P. 1983. Pine Creek. A Report to the National Trust of Australia (Northern Territory) on an Archaeological Assessment of Sites of Historic Significance in the Pine Creek District.
- BELL P. 1987. *Gold, Iron and Steam: The Industrial Archaeology of the Palmer Goldfield*, History Department, James Cook University of North Queensland, St Lucia.
- BELL P. 1991. Health, diet and mortality among 19th century alluvial miners in tropical Queensland. In (eds) R. MacLeod and D. Denoon *Health & Healing in Tropical Australia and Papua New Guinea*, James Cook University of North Queensland, Townsville.
- CLARKE H. (ed) 1982. William Hann Diary. Unpublished typescript, Cairns Historical Society, Cairns.
- COMBER J. 1991. Palmer Goldfield Heritage Sites Study (Stage 2). Unpublished report to the Queensland Department of Environment & Heritage.
- DUNSTAN B. 1913. *Queensland Mineral Index and Guide*, Queensland Geological Survey Publication No. 2411 Department of Mines, Queensland.
- GRIMWADE G. 1990. Palmer River Cultural Resources. Stage 1 Palmer Goldfields Heritage Study. Three volume report to Queensland Department of Environment & Heritage.
- JACK I., HOLMES K. and KERR R. 1984. Ah Toy's garden: a Chinese market-garden on the Palmer River Goldfield, North Queensland. *The Australian Journal of Historical Archaeology* 2:51–58.
- KIRKMAN N. 1980. The Palmer Goldfield. In (ed) K. H. Kennedy *Readings in North Queensland Mining History*, Volume 1, History Department, James Cook University of North Queensland, Townsville.

- KIRKMAN N. 1984. The Palmer Goldfield 1873–1883. Unpublished BA (Hons) Thesis James Cook University of North Queensland, Townsville.
- LEVINGSTON K. R. 1980. A survey of the geology and mineralisation of North Queensland. In (ed) K Kennedy *Readings in North Queensland Mining History*, Volume 1, History Department, James Cook University of North Queensland, Townsville, pp 1–38.
- MULLIGAN J. V. 1875. *Guide to the Palmer River and Normanby Goldfields, North Queensland, etc.*, Brisbane.
- O'BRIEN J. with KWOK MAN HO 1991. *The Elements of Feng Shui*, Element Books, Great Britain.
- RITCHIE N. A. 1986. Archaeology and History of the Chinese in Southern New Zealand During the Nineteenth Century. Unpublished PhD Thesis, University of Otago, New Zealand.
- ROTH W. E. 1899. An account of the Koko-minni Aborigines. Unpublished manuscript to Commissioner of Police, Cooktown.
- STEPHENS S. 1973. Palmer Goldfields – Discovery and early evolution. *Bulletin No 167*. Cairns Historical Society, Cairns.
- TINDALE N. 1974. *Aboriginal Tribes of Australia*, University of California Press, California.
- WEGARS P. 1991. Who's been workin' on the railroad?: An examination of the construction, distribution and ethnic origins of domed Rock ovens on railroad related sites. *Historical Archaeology* 25(1):37–60.