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The Leichhardt diaries
Early travels in Australia during 1842-1844

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Diary No 4 23 November 1843 - March 1844

(Moreton Bay)

[Inside front cover portion of one stanza from a poem Die Ideale, the ideals, by Friedrich Schiller]

Employment, which never tires,
That slowly forms, but never destroys
That reaches just grain by grain
To the construction of eternity
Yet passes by the great fault of the times
Minutes, days, years.

Fr Schiller

23 November

Today I found a greyish caterpillar, which was eating the young shoots of the indian corn. It is about 9''' long, greyish with two bunches of hairs on the back. Externally its presence in the fruit cylinder is not indicated by anything. Also the wheat is said to be attacked by a kind of fly. The weevil can fly very well; it has two shining brownish spots on the elytra.

The manderoljan tree (kargar Brisb[ane]) sheds the bark and appears quite white, manarm sheds the bark and is spotted. Dambirri sheds the bark and is a pretty orange or red colour. The old bark, without life, exposed to the hot drying rays of the sun, cracks and the ends of the strips curl in or out. The young bark is in full development and does its part in splitting the old bark layers. Indeed perhaps this is the sole cause of the fissures and their enlargement, whereas the atmospheric influences serve to peel off the old bark from the young.

The weather is very cold for the season, sky overcast, wind south-east.

24 November

Nicki brought me berries that he called balbaram. They are the berries of a mistletoe (*Acmena*?), whose flowers I collected when we went up to the bunya scrub. The berries are black and seem to have two lateral placenta and dry angular seeds.

27 November

I found the kulu myrtle and another myrtle shrub in bloom. The flower of the latter is much larger almost like a peach flower.

28 November

The weather cool, rainy, overcast, today 28 November has cleared up and the morning was extremely cold. *Caladium* is in full bloom, the white and blue *Aneilema* as well, at least belonging to the family, both growing very densely. The blue one covers the banks of the shady streams, the white one more in shady scrub. The cork vine is abundant in the scrub of the banks on the other side of the bridge.

Melons, pumpkins, water melons, cucumbers, the native melon, *Bryonia*, in short all Cucurbitaceae, in full bloom and development. The cucumbers are growing rapidly.

29 November

From the scrub under the mountain towards the north.

1. A small tree with broad lanceolate leaves, flowers in axil racemes, corolla superior, six leaflets, three outer, three inner, six filaments, opposite the corolla leaflets, six glands alternating on the filaments. Inside this a circle of abortive filaments and a simple-headed style. Two species, one with rough leaves, the other smooth. *Cryptocarya* R.Br. (*glaucescens*? & *triplinervis*).
2. Leaves opposite, elliptical lanceolate, stipules, flowers in raceme-like umbels (ternate umbels), corolla superior tubular, utricular, four teeth, four filaments, one pistil, the style continued over the stigma. {Rubiacaeae}.
3. A species of *Croton* with long standing calyx leaflets.

*wood 7. Cap of the *Eucalyptus* with many sessile Stigmata, enlarged filaments towards the centre, aromatic leaves and wood. {*Eupomatia*}

wood 8. Fruit a berry, leaves and wood aromatic, a middlesized tree with hard wood growing near the creek.*

30 November

I investigated the trees of the scrub, which comes to the valley easterly from Archer's along a stream from the mountain. The stream is flat and now without water. The trees are very diverse and the majority in fruit or just getting flowers. On the outer edge was a tree of of modest height in full bloom. The flowers white, tubular (the corolla tubes somewhat bulbous, oblong), four teeth, four filaments, one style, the leaves opposite, the wood dense, heavy, woolly on drying, the bark with small corky papillae, corresponding to the medullary rays. {No. 29}. Further in I found the tree belonging to the Proteaceae *Agnostus-Grevillea*, with long, stiff, green pinnately-lobed leaves, the wood reticulate like *Grevillea robusta* and *Casuarina*. Here *Grevillea robusta* was seen many times with dry fruit capsules, of which some still contained seeds, then the scrub *Mimosa* — soft white wood, fine longitudinally fissured bark. Jindilli with apples; three other trees, two with epigenous corollas, simple perianth, six filaments, six alternating glands, three filaments and three oval filaments with simple style and stigma {*Cryptocarya*}. One tree has glossy, broad, lanceolate leaves, the other has downy leaves with few clear protruding veins. Then a tree with very glossy, broad, lanceolate leaves, whose flower I did not investigate and finally a tree, probably belonging to the family of the *Bignonia*, one of the tallest of the scrub with elliptical, aciculate, broad leaves and racemes of large personate flowers, five filaments, the halm purple-coloured. The wood is very soft, the bark light green, weakly fissured. This tree is very abundant in scrubs and at present the fallen flowers cover the ground everywhere. Another very tall tree is monopetalous, the corolla just under the teeth, somewhat reduced, short, and finally another aromatic tree has large white flowers, the filaments are just newly grown, glands inside, simple style and stigma. Finally I have also to mention a small tree with small greenish leaflets and hard heavy wood. Yesterday afternoon Mr Charles Archer showed me several tall trees with greyish bark and white wood, which have a round ½" in diameter fruit having a sap colour with very irregular uneven and furrowed embryo (dullum). {*Elaeocarpus*}. At the same place I found a small *Eucalyptus*-like tree {*Eupomatia*}, but with many fissile scars, and an aromatic tree with tough white wood and reddish bark, which penetrates into the wood, and with small aromatic pipe-like berries. A bush vine with yellow flowers (corolla tubular, edge flat, four lobes, four protruding filaments). Another bush vine with edible bluish-black berries {*Cissus*}, but later burning somewhat in the throat. Finally an almost plant-like vine, the pistle with three styles and stigmas like *Ricinus*. In the scrub I found a very tall tree with soft white wood and thick bark with similarly formed fruit. Three trees have fruits with three capsules, each capsule monospermous, each seed with a more or less fleshy arillus {Sapindaceae}. One fruit (gnängä of the Blacks from Nurrum Nurrum) is sour, edible and gives a beautiful preserve. The second gurargum has a more membranous yellow arillus, but with almost woody, at least hard, chambers. The third has yellow membranous chamber walls, arillus attractive red, seeds black. Besides these there is another tree with three capsule fruit, woolly outer skin surrounding a woody inner one, the capsules completely sprung, septicidal and loculicidal and the shiny seeds fallen out.

[Letter in English to Thomas Mitchell 11 December 1843. Aurousseau, 1968: 684.]

{There are two species of acorn trees, one with short-stalked umbelliferous fruit and the other with long-stalked fruit on the creek *Tetranthera*!} Also an acorn-like fruit was found with acorn cups, but the tree

is still unknown. Further a broad-winged fruit, four one-seeded capsules, each with a wing-like broad process: barir (Paddy). The wood of this tree is net-like Sterculeaceae (*Hildegardia*?), the leaves ternate, silver and golden on the underside, green on the upper side. I found the flowers previously. On ripening the fruits fall from one another and are eaten by the Blacks. They taste like the beech nut. A red fleshy berry, but whose tree I do not know yet. A small yellow tubular flower without the corresponding plant.

Of herbs a new scrub *Lobelia* and probably a new *Hydrocotyle* were found.

During the day I have been continually occupied with drying. This drying acquires more of a commercial character and I expect payment for my trouble and therefore will no longer lose a single plant.

3 December

I collected several pieces of wood in Archer's scrub. No. 9 smooth finely tunicate bark. Wood dense and heavy, bark section white. Wood in general white. It was a tall tree, the wood around the hollow centre brown and very hard, with white spots, the leaves broad, lanceolate and soft, the flowers reddish like *Digitalis* but smaller. They come in part directly from the twigs in small racemes, others are axillary. It was a small tree covered by a large number of creepers. One of these was obviously a fig-like plant with milking stem; another *Ripogonum*, which is now forming its fruit, a third was with very long, oblong, lanceolate leaves, on whose reverse, strangely enough, insect punctures produce a fruit-like formation. There seemed to be five capsules lying around a middle point.

Near this tree grew a small tree No. 10 with smooth finely fissured bark, transversely placed lenticillate spots, young bark layers bright green, wood tough, dense and heavy, young branches white, the leaves as well, elliptical-lanceolate or oval-lanceolate, without fruit and flowers, wood white. Bark cross section green and white.

{*Tetranthera*} No XI. The acorn tree. *Acorntree.* An impressive 70-80′ high tree. Bark grey with large layers[?], with fine transverse fissures. The layer under the old bark whitish and reddish, the bark cross section yellowish, later changes to a more reddish colour. The wood tolerably hard, brittle, with pores. The leaves alternating, oblong, blunt, narrowed towards the base, light edge around the dark green rather stiff leaf. Acorns in umbels of 6-5 &c axile (?) green, colour changes to purple and they fall from the cups to the ground. Pericarp fleshy, containing a yellow aromatic, almost resinous, sap. Embryo with two thick cotyledons, reversed, with the radicle towards the apex of the acorn. White venation in the perisperm.

11 December

On 4 December I rode to Brisbane with Mr Archer. At the streams, which flow into the Worarba Creek or into the Deception River, or into both the Pine Rivers, several myrtle trees occur in flower. The length of the filaments made a slight distinction, one with very small, the second with very large flowers (very long filaments Durundurr?), a third middling and finally a yellow small-flowered *Calothamnus*. {*Tristania laurina* [possibly to replace *Calothamnus* which has a line partly through it].} On Myrtle Creek the tall tree with *Bignonia* flowers was also growing. In the scrub that surrounds *the Scruby hill*, a small tree grew with long-stalked leaves resembling the trembling poplar, which drew our attention by the rich decorative colour of its flowers. It was a leguminous tree. The small yellow flowers in long narrow racemes and these five to six together in bunches on the crown of the tree. It smelled like the wild rose. Cedar was seen in pine brush at

Captain Griffin's station, which here shows open light bright green crowns, and a liana with racemes of small reddish berries (three capsules) adorns the scrub. {*Excoecaria*?} Also the strange shrub with yellow, almost closed flowers containing two filaments and with stiff leaves grew and flowered abundantly. When we went to Brisbane, *Ipomoea* and a small tree, whose fruit I collected on my first visit, were in blossom. Coming back I found a *Lythrum* near Griffin's station and the small yellow-flowered *Mimosa*-leaved legume is flowering everywhere. The grass is dry enough to spread the fires of the Blacks and the White travellers through the forest and in consequence large tracts lay in black charcoal and ash, in others the fire crackled greedily through the high grass and through the dry twigs of the fallen trees and the smoke spreads like a haze through the atmosphere. Frequently, however, the fresh black fire patches extend through the most delightful green of the young grasses, which are now springing up luxuriantly on the old fires and not only offer the kangaroos pleasant places, but also supply the horses and cattle of the wagons going up and down with agreeable fodder. Probably hardly any more old grass will be found in four weeks. I longed to move those stupid enemies of fire onto such a plot of young grass to hear lectures alternately from horses, sheep, oxen and kangaroos about the advantages of burning the old grass.

The various forest trees exfoliate and give the forest a strange appearance with their white mottled and orange-coloured trunks.

I was in Brisbane on 6 December. Mr Petrie showed me the small cone of an *Araucaria*, which he found in Wide Bay. The resin was yellowish and transparent. {This is also the case in the cones of A. *cunninghamii*.} In addition another species northerly from Mandann with denser foliage, tougher fibres, and with smooth bark. He showed me the youngest marine sandstone and a clayey rock with an impression of a bivalve. Several kinds of wood, one of which drew my attention by its horny texture. Very rich ferruginous sand from the mouth of the Wide Bay River. The iron in very small pebbles.

A tree which I had already found close to the water in Newcastle appeared again in Brisbane and is now in fruit. Three chambers, each one-seeded, each seed black with red aril. This tree seems to occur always close to the salt water. It is at Mr Griffin's station, to which the salt water rises from time to time through the Pine River.

When I returned again to Durundur on the 9th, *Lomatia* was in flower on the sandy plateau in front of Archer's station.

Yesterday I received a letter from Sir Thomas Mitchell, in which he announced to me that an expedition to Port Essington was in the wind and that he would be please to have me as a companion. I have answered him that I would immediately present myself as soon as the expedition is certain. At the same time I received news that my mares were seen and that the younger had foaled.

The Mission is close to breaking up. Both the clergymen are on the point of leaving this area. Mr Eipper is going to Goulburn as a Presbyterian minister. Mr Schmidt has opened a subscription to cover his travel costs to America. The Brothers are returning to their trades. The Government would probably allow them the use of their land.

Raphe very distinct corny perisperm like the coffee, but forming a capsule round this a woody case which is covered with a pe [unfinished?]

24 December 1843

About 14 days ago I operated on a hydrocele in little David, after I had already punctured it 10 days previously. The water accumulated to the same amount as early as the second day after the puncture and I was convinced that radical healing could not be accomplished by puncture without injection of an astringent liquid. Before the puncture I had used a blister plaster without success. Therefore for the purpose of a total healing I made an incision in the outer skin, by picking up a fold and piercing it. After this happened, I held it open with the fingers and made a small opening through the skin of the scrotum in which the testicle lay and which was swollen with water. As the water streamed out, I inserted a quill and forced a much diluted water of *Angophora cordifolia* into the sack by mouth. An hour after the operation, the child was depressed and inclined to vomiting. His pulse was extremely low. But towards evening a severe inflammation set in and both testicles were very swollen. His pulse was very fast and strong. I feared I must bleed the child. I feared the inflammation of the scrotum skin might spread to the peritoneum and peritonitis set in. Therefore I prescribed senna tea repeatedly. As this began to work, the disturbing symptoms abated, the child was less restless and anxious, his pulse was less feverish — it was fast, but no longer hard. During the night I was in great anxiety myself. Next morning his pulse was strong again, but the senna leaves worked again just as favourably. On the second day all appearances were reassuring and I got ready to fetch my horses.

The illness was probably caused by a local injury. The mother told me that the child had trodden[?] on a sharp footplate to clean his feet and soon after had complained about pains. When I saw it for the first time, it appeared blue and I regarded it as a hernia, but was not able to reduce the swelling and this caused me to regard it as a hydrocele. However, because the child was restless and spoilt, I wanted to have nothing to do with him and sent him to Brisbane to Dr Ballow. The latter regarded the illness as a hernia and prescribed a hernia truss. He thought to have reduced it. However, at home it was obviously an error. Also it seems it was not properly investigated. When the hernia truss arrived, the parents had me fetched. I had just returned from Bigge's via Balfour's and Mackenzie's. Now I was forced to investigate carefully and to look after the child, because the hernia truss would have done more harm than good. I tried three times in vain to reduce it. I investigated it with a light at night. It was transparent; it was extremely hard without the slightest consequences for the general health of the child. The child was lively and red and ran around as if nothing were wrong with him. Therefore the hernia truss was discarded as harmful and I began with a blister plaster, then puncture, then puncture or incision and injection. Now his healing is imminent according to all appearances.

I asked myself whether it was right to put an apparently quite healthy child in great danger through such an operation. The illness had lasted three months and was getting worse. You could not assume that it would reduce by itself. Based on what I know, an operation would have to take place one day and who knew, whether this would not become much more dangerous at an advanced age. It is true I lacked the necessary instruments. A sharp pen knife and a quill pen were all that I had. Moreover I believed that the testicle would have suffered significantly in its development surrounded by water, if the swelling were not completely suppressed.

On the 16th I rode over to Mackenzie. The silver-leaved ironbark was in full blossom. Previously about 10 December and perhaps already at the beginning of the month tangpalang (tabil pillah, which

is a *Melaleuca*) was flowering, birrawan was flowering in the middle of November and I have unfortunately not been able to collect flowers. {24 December gnarrabill is in flower.} The small-leaved ironbark was in flower in the middle of October and continues to blossom. On Mackenzie's hill two new legumes were again found. One with compound leaves, long pale linear leaflets, the other with compound leaves. {*Mimosa* (the sensitive plant) was in flower in Mackenzie's garden.} On Saturday evening (the 16th) we had a severe thunderstorm, as also Friday 15 December. Just as severe a thunderstorm occurred on Monday 17 December and on Tuesday the 18th, a less severe one, just whirling, and on the 19th, 20th and 21st. Usually the night after the storm was fine. In the morning loose clouds hung around the horizon, they became thicker and like theatre wings {(became darker in the middle and at the lower edge)}. Storms appeared in the north — northwest— west — south-west and south. Several times Mt Brisbane seemed a point of attraction and weather divide. On Sunday (23 December) the sun shone for a long time through abundant, although more compact, masses of cloud. Today was sunny and hot in the morning, but at present loose cumulus clouds with dark centres or dark lower curves are moving through the sky. This weather agrees wonderfully exactly with that of the previous year. On 15 December 1842 I experienced one of the heaviest thunderstorms in Dawson's dwelling at Black Creek. Here, as there, there was almost uninterrupted lightning and rolling of thunder. Here, as there, large drops of rain fell in such a quantity that a flood was to be feared.

On the 18th I rode from Mackenzie's to Bigge's. Of seven mares that Mackenzie brought to St George the previous year, only a single <u>one</u> brought him a foal. I was told that other stallions were never able to cover a mare properly. Archer's mares, which were covered by a poor stallion, had five female foals and one male. My foal is also female, although the mare was poor and the stallion strong. In other years the majority of foals were male. It seems to depend more on general, but unknown, circumstances than on the relative strengths of the mare and stallion. They believe that the colour of the foal is determined by the ancestors of certain horses before the mare during the covering. Mr Mackenzie has washed his sheep with arsenic *(1 ounce to the gallon)*. He has lost only 40 of 1600 and these died quickly after the washing. Probably the sheep swallowed some of the liquid. He had beautiful fine weather. Mr Bigge washed his sheep at first with corrosive sublimate *(½ ounce to the gallon, 2 ounces to the gallon washing of the spot)* and in fact twice. Not a single one died and it seems that they are completely free of scab. Afterwards he washed another number of sheep with arsenic *(½ ounce to the gallon)* and 40 or 60 died on him. The weather in both cases was very favourable. In the flock of sheep about five ewes have dropped their lambs. The remainder were all in very good form. He has 100 wethers, which graze around the dwelling without shepherds. They have several bells. They are very fat.

My horses were in the river bed four miles below Scott's dwelling. The chestnut-coloured mare had foaled. Probably she had sought out a quiet place, as is usually the case. The place was in direct line to Goodwin's station where she had foaled the previous year.

In the river bed below Scott's I found a balsam-like plant, which I had already seen previously in the Gwydir below Ottley's. It is in flower at present. Also a yellow composite with woolly pinnately-divided, sessile leaves was flowering in Bigge's paddock. *Crinum* flowered at some places very abundantly, e.g. on our ride after the mares in some depressions.

Yesterday, 23 December, *Helenium* was found in flower. The flower is peculiar. The corolla superior, three outer sepals, one broad corolla lip with two small processes, one anther, the stigma coming through between both its lobes. Jindilli, *Hibiscus*, *Tripetalus*, ulall, bauin, catkin tree, and dullum wood specimens were collected. Today gnarrabill and barawam (at least the fruits) were collected; several *Carex* and grasses at the scrub and a *Pimelia* with oblong woolly leaves were found. The blue Scrophulariaceae present in pretty specimens.

Yesterday I received a letter from Cottbus of 29 April 1834 [1843]. All are well; my youngest brother Adolph is married. Dear mother is becoming frail. The heat and dryness last year was extreme, and the prices high. The stupid government is still worried about me. {A railway from Berlin to Fürstenwalde.} William writes that he is preparing himself for public lectures. Mr Lynd writes me a friendly letter. The expedition to Port Essington is postponed for an indefinite time.

Archer's lambs seem to have liver rot. At least they have the watery hanging throat and the general weakness and after death the liver is as if boiled, brittle, the muscles pale, like dropsy. I have tried acupuncture with one, but I don't know with what success.

The season of melons is beginning, beautiful water melons, casaba melons, rock melons, and vegetable marrows. The young corn (*Zea mays*) tastes very pleasant, particularly with roasting sauce, almost like young peas. The bananas are doing very well, although still not developing fruit. The pineapples are very healthy and the fruits are beginning to swell.

25 December

The Southern Cross is now appearing again at the beginning of the night over the horizon after almost two months absence for the early sleeper. The cicadas make an extraordinary noise and as they fly from one place to another, they squirt out a liquid, which falls like rain. In the dwelling the grey cricket chirps.

Along the creek and water holes gillgerall (creek wattle) occurs in bloom. The flowers have a strong pleasant perfume like many other wattles. The gum wattle flowered on the range of hills between here and Mackenzie's. Another shrub or small tree with flowers in racemes and many filaments in the male flowers is at the waterhole below the mountain. A shrub with red berries and finally the broad-leaved *Panicum*.

26 December

The dew is very heavy in the morning and usually lies for a long time, although the sun is already becoming oppressive at an early hour.

In the evening a large number of moths fly around the light. Yesterday I caught six different species, some are very small, mostly very prettily and delicately marked.

Ulall is female and male, the trees differentiated by the male milking, whereas the female produces only little transparent sap.

1 January 1844

On the previous Wednesday 27 December, I went with Mr John Archer and Mr Waterston and three Blacks, who carried the necessary provisions, to Burun, a place about 30 miles east north-east of Archer's station. {Kimbamba is the name of the lagoon, in which Mr Archer washes his sheep.} During the ripening of the bunya fruit, the Blacks

assemble there from all regions of the near and far neighbourhood partly to eat the fruit, but partly to fight with enemy tribes. Our track led us up to the other southern side of the Durrundur branch of the Brisbane about 10-12 miles towards the east, then we crossed it and went in a north and north-easterly direction, whereas the river descended from the east from Mandan a small mountain range with truncated main peak. Before the last ford a significant range of hills afforded a very beautiful open view. In the north we saw the Bunya range covered with dense primeval forest, with many southerly spurs, between which streams covered with scrub descend to the Brisbane. Towards the east Mandan appeared, on which the Brisbane [River] arises and a conical hill Baramba. Towards the south the Glasshouse Mountains are most decidedly visible, with the distant ocean and the islands and towards the west you see the spur of Durundur and Tschentschillum mountains. This spot is very important for the future survey of the region. We remained over night at a small stream that we named Ferntree Creek, because a large number of 5-6-10′ tall tree ferns grow on it. On 28 December we continued our march and soon came to one of the spurs of the mountain, climbing up to the dense scrub, which covers the sides and the ridge of the mountain. After a four hour walk on the narrow, often barely recognisable path criss-crossed with prickly vines and woody creepers of all kinds, we finally came to the other side of the mountain and to a free tract of forest on a spur sloping towards the north, on which a friendly tribe had set up their camp. Our Blacks immediately built a hut for us and for themselves and we indulged in the bunya fruits that our hosts brought in abundance. Next morning I went to Burun with Mr Archer, which is about 5 miles further. It is a narrow flat with few trees with good grass growth enclosed around by mountain ranges, which are covered by thick scrub. We saw a crowd of Blacks here all ready for fighting. However, because the fight, of which they told us, did not seem to be going to take place, we returned to our camp, the more so because the weather by no means favoured us. Next morning, the 30th December, we began our return journey and because each of us longed to be at Durundur, one to dry his plants, the other to escape bush life, the 30 miles long track was completed in a day. We arrived again at Mr David Archer's dwelling in good time on Saturday afternoon.

After the thunderstorm, which began on 15 December, had made a slight pause, loose clouds appeared again and heavy showers fell from time to time as we went to Burun. These also continued the following day. The first half of the night was always clear and starlit; in the second half showers often occurred. Early in the morning and during the forenoon showers often continued. During the afternoon sunshine, then it was extremely oppressive, as well as during the intervals. Such showery weather with north-east? winds, or also probably with total calm of the lower layers of air during the rapid flight of the loose clouds, suggests brisk upper airstreams. Mr Archer told me that the wet season usually occurs during January and February, however, during January very warm dry weather often prevails.

As far as I followed the course of the river, it lies from east to west. Higher up it makes some meanders and seems to originate between Mandan and the bunya mountain. The river or stream receives[?] its water from a large number of gorges, which descend from the southerly slopes of the bunya mountain between often sharp branches or spurs. We crossed one of these streams and christened it Ferntree Creek. The river received a large stream from the south, which comes from Biroa. The Bunya Range is not too high, the range from which we enjoyed

the view is not connected with the main mountain or with Mandan or with Baramba, which lies directly east or a little southerly. The southerly slope of the main mountain, which stretches from east to west and probably turns northerly opposite Mandan and provides the Murndschadoa (Nirmtrun) with water from its eastern slopes, is steep, particularly the highest section. The crest itself is a plain of several miles width. The northerly slopes are not so steep. We crossed a stream, which according to the statements of the Blacks belongs to the basin of the Wide Bay River. It seemed to flow north-easterly. We crossed it at its upper course. After we had gone some miles further, we gradually climbed downwards and found ourselves, as we stepped out of the scrub, on a free ridge covered with few trees, on each side a deep gorge, in which water flowed to Burun Creek. Between this mountain ridge and Burun flows Burun Creek in multitudinous meanders. We crossed it three times. The banks are high and the bed filled with middling boulders. On my return the direction of the bunya mountain became even clearer. I thought that it was about 1200-1400′ high. However, a very prominent mountain Köllervenangba, which rises opposite, is perhaps 2000′. Kollervenangba is the name of two or three very pretty water holes that lie in a beautiful flat not far from the bank of the river. This flat was just covered with the most delightful grass and continued in several other similar flats. The missionaries once intended to settle here. At all events they would have made a better choice than Eagle Farm. The Blacks told me that Wide Bay was many days march away from Burun, however, because they only travel slowly in the bush, I think that their day marches are only short.

In reference to geological conditions, I found a rock on the other bank of the river on the first hill that we crossed, whose quartz grains were surrounded by powdery feldspar. It probably belongs to the arkose that I mentioned previously coming from Biroa and which owes its origin probably to the syenite mountains of Tschintschillum. Further on the nature of the rock changes and opposite Köllervenangba the same hornblende porphyry occurs, which I mentioned on the other side of the river in the bunya brush. The hills that now follow are all a coarse-grained ferruginous sandstone. Often empty iron husks were found from which the loose sandstone was washed out. This rock is particularly on the hill on which we enjoyed the beautiful view and on the ridge on which we climbed up to the Bunya range. As soon as we entered the scrub the nature of the rock changed. Here it was the basalt of Tarampa Hill. In the centre of the mountain the diorite of Durrundur with free elements is predominant. Besides this rock and a porous basalt, I also found rolled feldspathic specimens in the streams — feldspar crystals in feldspathic matrix. As we left the scrub on the northerly slope of the mountain and entered the open forest, ferruginous sandstone was again under our feet. The same change was noticed on our march to Burun. As we crossed the creek for the last time, we ascended a pass covered

with blackbutt woodland. This is sandstone and as we entered further into the flat or into the basin of Burun, the easterly heights showed a loose sandy soil with blackbutt and small *Banksia* trees. The north-westerly and southerly hills are covered with thick bunya scrub and we could conclude with good reason from that previously seen that they are formed by a volcanic rock.

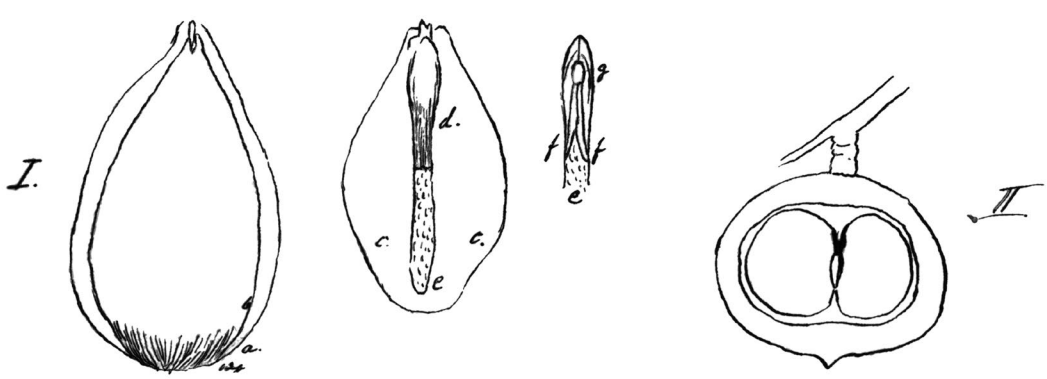
To Durrundur the soil is of a threefold or fourfold nature. The soil of the flats (where the paddock is) is a stiff clay soil with little sand. The soil of the hill is a good black garden soil about 1½ [feet] deep, then comes a thick layer of a ferruginous clay, and as you penetrate deeper into it, it becomes sandier and mixes with fragments of the underlying rock, which is sandstone. There is a light rich brush soil along the river. Humus is predominant in this and the river carries loose sand in its bed, which [contributes] significantly to the formation of soil at a depth of 2-3′. The fourth type of soil would be a light sandy soil, which is at the foot of a sand hill and on the mountain ridge, over which the road to Brisbane leads. With the exception of the stiff flats and those places, which a layer of clay directly underlies, the soil is suitable everywhere for cultivation and because there is no lack of rain even the loose sandy soil could be utilised. Mr Archer's garden gives a magnificent harvest. The plants are very healthy and vigorous, but it requires much work. In the bunya scrub there is a rich clayey soil that is moderated by rotting plant material. Where trees have fallen over and show the deep soil, it has a rich brick colour. Still this soil is only shallow and hardly perhaps 1½ feet deep. This comes to light at least at the fallen trees, whose roots spread out flatly at shallow depth. Burun has a mixed soil, the rain washing sand down from the eastern hills and flooding of the stream probably deposits clay and humus.

For botany this trip was not without profit. In the young grass, which adorns the forest now with the most delightful green, a strange legume with divided corolla leaves, with from four to ten filaments, and finely pinnate leaves is growing abundantly. Another yellow-flowered plant was found on the height on the other bank of the river, but only one specimen. *Lythrum* in the flats. The <u>bean</u> with <u>ternate</u> leaf and long[?] narrow leaflets, and long pods abundant. {The Blacks eat the roots of this bean.} Another climbing legume with divided single red flowers. A pale green fleshy-leaved plant with quadripartite calyx and corolla. A tree of the myrtle family, which the Blacks called banindar, is flowering in the scrub of the river. It resembles the kangun in the bark and in the wood, but not in the leaves. Five sepals, five petals, many filaments longer than the petals, filaments divided, pseudo umbell. Ferntree Creek produced several interesting plants, for example a beautiful large-leaved, white-flowered orchid.

{*Seaforthia* also grew here, the prickly vine and the small bush palm.} The tree fern 6-10′ tall, 1′- 1½′ in diameter (after the remnants of the leaves are peeled off). A small shrub with white monopetal flowers and fruits.

Another shrub with large white flowers, also the strange shrub and small tree of Durundur (with large white flowers and many stigmas) {*Helenium* everywhere in flower (Kindebin N[icki]).} The binaroan (blackbutt) was in flower everywhere and parrots frolicked[?] in the flower honey. Yarkandam a tree with large broad leaves that only grows in the upper course of the Brisbane and in the stream scrub below the Bunya Range. Among the fern trees here also grows that bending fleshy-stemmed plant (*Dorstenia*?), which I found under similar circumstances in the Mt Royal scrub. A small shrub with red berries, the fleshy coat thin, the perisperm horny, the embryo horizontal, straight. Melastoma a small shrub with large red flowers (gnandurrum N[ikki]) and with the peculiar leaf in the shape of filaments grew on the wooded pass. Many fruits were found in the scrub. The Blacks give them the following names. *Murnam N[ikki] the native plum, Iburba Kannanbi Paddy, oblong kernel surrounded by a dark blue or black fleshy tasteless pericarp, often 2 compressed kernels. Nera (Nirria) a large purple fig, growing on a very high tree. Tilbill seems to grow on a vine. — Bodne or bojne. Mandarra one or 2 kernels like a chesnut, only more compressed reniform. Binbirnnibill not to eat.*

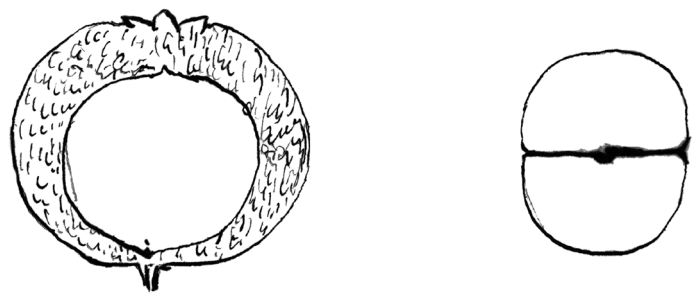
Binbirnnibill. red berry 20 lines 3-4 coyledons, very long radicle, horny perisperm yellow tissue below the perisperm [deleted?] embryo horizontal



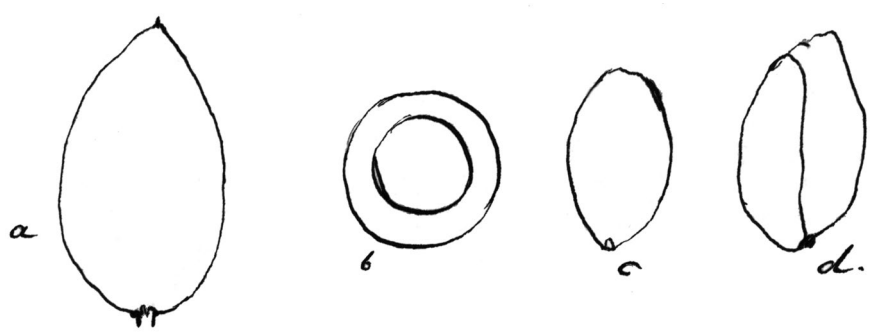
*I a. woody case b. fine fibrous case c. albuminous body d. leaf tube e. a kind of fatty substance (vegetable gelatine in the tube not yet filled with the leaf. f.f. leaflets united into one tube g. gemmule.

II. Section of the Mandarra*

Dandajom is another species of *Araucaria* that grows in the basin of the Wide Bay River. It is different from gunam (N[ikki], warrall Ch[arley]) and from bodne.



The Blacks called this fruit jindilli as well, but obviously incorrectly. The calyx is superior, in jindilli inferior. The horizontal section shows a strange condition of the cotyledon. This alternates in development, so that the right cotyledon develops on the left side and the left on the right side.



Iburba a. the complete fruit with remains of the calyx at the lower end and with pistil rudiments on the apex. b. horizontal section, fleshy pericarp and a single embryo, a shiny spot indicates the chalaza. c. the small cotyledon d. both cotyledons with the small rootlet.

When I went with Gumerigo and Kipper Nose to get bunyas, of which we found six on a tall tree, old Abel came and obligingly searched for trees in flower. We discovered one tree unknown to me in full bloom, which had fully the perfume of the common lilac. Old Abel called it vauan vauan and I have entered it under no. 65 in my wood register. On the trip to Burun I found beside *Melastoma* a new red spotted orchid, whose beautiful flowers fall off on drying in an incredible way. {Dunnam *Hibiscus* imbill *Hibiscus* N[ikki].}

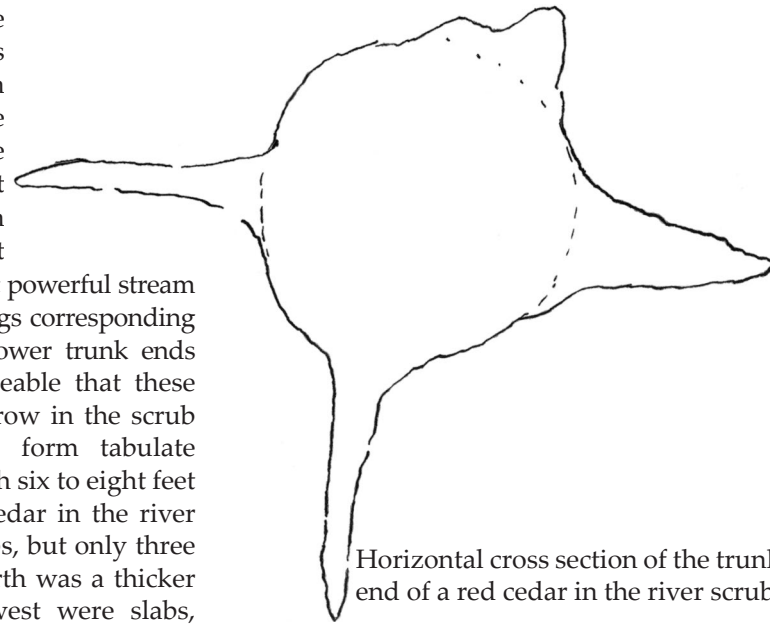
The bunya tree is very abundant here all around Burun. Occasionally we saw four to five hardly 100 paces from one another. It is a huge handsome majestic tree, often 17, 18, 20, 24 feet and more in girth. Its slender trunk strives upwards far over the trees of the scrub, before it forms the crown. This is oblong and the branches, although perhaps

originally springing regularly from the trunk, cross one another and hang irregularly in confusion. Only the apices of the branches seemed to be covered with foliage and are similar to a fan, in which the fruits hang. The Black recognised and counted the fruits at a height of perhaps 180′, while I was not able to discover them like my sharp-sighted companion. He laid the bush vine around the trunk, fastened it with his left hand in a loop, while the right gripped the other free end and immediately climbed quickly up the immense tree, always jerking the vine further upwards before him. Arriving at the crown, he broke off the fruit and threw them down. You could hear them whistling through the air and their fall on the ground is heard very far off. Four to six fruits were on the trees, which the Blacks climbed for us. They now took the cone, which is almost 1′ or 10″ long and 8″ wide and dashed it on a sharp stone, which split it into two ends. With great rapidity they tore the nuts free from the surrounding scale and loosened the kernel from the woody, fibrous rind. They mainly use their teeth for this. If you don't know how, it is a very slow business and you never get a complete kernel. Many of the scales have nuts without kernels and usually the scales of the apex are without kernels. The taste of the nuts varies. The Blacks said they were best when the sun does not stand high, therefore in the early morning and evening and probably in overcast weather. If the nut is young (the leaf cylinder half developed) and the circumstances are favourable, the Bunya kernel tastes extremely tender and sweet and strangely aromatic. If the circumstances are unfavourable, it is either watery, or without aroma. The aroma disappears if they are just roasted or boiled. The Blacks eat extremely large numbers and they are never fat. Indeed just as soon as we started we could not stop ourselves, as they almost never leave behind a satisfactory feeling of appeasing the appetite. I ate a large number, raw, roasted and boiled. I think they do not differ in respect to digestion in these various states. They acted on me slightly purging. If I had eaten bunyas in the evening, copious soft excretion would take place 18-24 hours later. My white companions did not suffer at all, but one of the Blacks did suffer like me. The fig (nera) is also a very agreeable, slightly tart fruit. It is about 1″ long, fleshy, but with many dry kernels inside. The Blacks only eat those which have fallen from the tree. They squash them and press the dry kernels out before they eat the fruit. The trees are usually very tall.

I also must mention the red cedar here, which lives in this scrub as well, to whose mightiest and best products it belongs. {*Castanospermum australe* is also very abundant here and easily recognisable by the red flowers that cover the ground.}

I have mentioned scrub of this kind so often, that it seems almost an unnecessary repetition to enter into the economy of this exceptional bunya brush, which seems to cover a whole mountain in a length of 50 miles and a width of seven to ten miles. Is it the nature of the rock, or is it only the loose accumulation of its angular pieces, or is it both with a favourable situation towards the moist sea winds that stream in daily on their slopes? Everything shows greater abundance of water. Its streams are always filled with water, their high banks are covered by tree ferns or by a wilderness of low species of ferns. *Seaforthia* thrives here and the scrub figs are very abundant. Almost all the tall trees form strong buttresses at the base of their trunks. I thought that this was connected with the slight depth of the soil, although I also find it frequently in the stream scrub, which must have a very deep soil according to the bank sections. Previously I thought the figs or bush vines caused outgrowths of this kind, but this is not the case. It is not the character of a species or a genus, but it seems

dependent on the age of the tree, although some species form buttresses earlier than others. And what can be the cause of this strange eccentric formation? It seems to be connected with the direction of the strongest roots, perhaps with the most powerful stream of nutrition. We find swellings corresponding to the main roots on the lower trunk ends of each old tree. It is noticeable that these swellings become very narrow in the scrub and that they eventually form tabulate buttresses, which often reach six to eight feet up on tall trees. The red cedar in the river scrub had four of these slabs, but only three were well formed. The fourth was a thicker swelling (east, south or west were slabs, north a swelling).



Horizontal cross section of the trunk end of a red cedar in the river scrub.

The prickly bush vine rattan with its long hooked catches and a host of other vines filled either the intervals between the tall trees, sometimes lying over the ground, sometimes freely hanging down from the crowns of the trees like ropes, or ultimately hanging across in every direction through the crowns and from trunk to trunk like the cordage of the mast, or they coil tightly round the slender trunks under the tall trees, whose bark swells over them and finally it probably even covers wood with wood, if the vine does not strangle it before hand. While the dense crowns formed a shady roof through which the huge bunyas rise like tall shafts of columns, the trees, which are covered with a network of fig stems resembling the rounded columns of an Egyptian temple, spread a network of thick roots, particularly on the surrounding rocky soil, which wreath like snakes seeking their nourishment in all directions. Overturned trees, which are still connected with the soil by some roots, send young shoots in all directions because they brought down a large number of vines with their fall, and their crowns formed a wild irregular mixture filled with foliage. Other trunks, often of extraordinary thickness, so that we always had to scramble over them, had already become a prey to worms and wood fungi and often traces of our footprints were left in their soft rotten timber. High heaps of leaves were formed by the *Lathamia,* in which to lay their eggs and to have them incubated by the heat of the fermenting leaves and vegetable mould. Various yellow-, red-, blue-, and purple-coloured fruits and flowers lay over the ground. The mandarra, the nerria or nera, the jindilli apple, the fruit of the ruddar, and the flowers of *Castanospermum australe* charm the eye everywhere. The piles of empty bunya scales reveal that the Blacks were in full harvest and the musty gall of the thrown down fruits showed the place of their present activity. A small bird, joa-yuya, sounded its call uä uäbää, a plaintive cry like that of a small child, the whole day through, and the call of ungallam, a larger bird sounded as well; it played a staccato like the sharpening of a saw, from morning to evening.

Of the mammals, only one kangaroo was seen, which fled before the dog got sight of it. It grazed on the young grass covering the hills and depressions south of the river. Of birds, several king parrots in pairs were seen when we went to Burun and a native turkey (*Lathamia*) of the size and form of a turkey was shot. Its strong toes armed with powerful nails assist it to heap the leaves and earth together. It only rarely sounds a short clucking call. Head and neck are naked and covered with red folded skin. {Butirri bellbird.} Several species of pigeon inhabit the scrub. One qurete like the turtle dove, the other (wampo) has a very peculiar hollow call (wampo woa). Only the carpet or diamond snake, which the Blacks call wongai, is found in the scrub. {The last six tail scales of wongai are simple.} Moreover of reptiles duallim is frequently found. My Black companions discovered another species of sleeping lizard with dark back and lateral bluish spots in a hollow tree trunk in the river scrub. In the grass on the foot path lay a death adder (mundullum), which the Black's eye, however, spotted before he or I, who followed him, came into dangerous contact with it. The rainy weather probably prevented the call of the cicada being heard in the scrub, as I suspect that some species also live in the scrub. In the streams and moist earth lives the crayfish, a delicacy of the Blacks, which they call [blank], and many leeches cling to the shoes and on the travellers themselves, particularly in rainy weather, and bleed them against their will. A host of dark plain or striped *Julus* sit under the bark; the scorpion is sometimes seen, but I did not notice scolopendra. I will mention too that I found a species of annelid under the tail of the crayfish, whose head ended in five small finger-like appendages. Mosquitoes were hardly noticed at all, but I saw the elster fly again, which I saw so frequently on Piri.

So as to retain the feelings of the moment, I will copy what I wrote down in my memorandum book on the first evening of our journey.

What a magnificent night of the 26th December. A light draft of air moves on the hills along the valley, in which a stream runs between tree ferns in the deepest dark of dense trees twined around by bush vines. Tall ferns cover the forest floor, in which binaroan raises its noble trunk and its tall crown that is now decorated with white, honey-scented flower racemes. A cheerful but too vigorous fire rises in the air before our hut, which the Blacks built from broad sheets of bark on a huge fallen binaroan trunk. In the stream some frogs appear and crickets sound a metallic chirping. These are the sole voices of the night. In the scrub a host of bright phosphorescent bodies lay on the ground. When I investigated them, I found that they were leaves. The Blacks prop two wooden sticks against one another, on which they lean a third diagonally placed towards the fire and then lay the bark over this frame, or they just stick many other sticks in the ground and lean them on the first two and then cover them with grass. On our march to the Nynga Nynga Mr Archer leaned the third stick to the back instead of towards the fire, whereby in fact the opening became free, but the roof of the hut did not jut out so wide and so protectively. The Blacks immediately saw the error and laughed merrily at the otherwise so able architect.

During our travel I had several contributions to my knowledge of the Blacks. The day before when I was occupied in the bush with collecting specimens of wood, Nicki carved a small piece of wood about 7-8″ long and hardly an inch wide and two lines thick, narrowing at both ends. He bored a hole through this at one end, tied a cord of 3-4′ on it and fastened this like a whip on a stick. Then he swung the little piece of wood around his head. It began to hum and

to buzz and to drone and to roar and as he lashed with it like a whip, it produced such a peculiar penetrating sound that I let my axe fall quite astonished and watched his activity. He called it pannanpadda and told me that the children, kippers and women must not see it, that the elders make them believe it is the voice of the devil and he is coming to eat them, and that they anxiously hide themselves when they hear it. On Worarba Creek and Pine River they have a longer similarly formed instrument with which they produce a hollow sound, but which probably is not able to vibrate with such pulsation.

They were very modest in their explanation of the act of copulation. I was curious in as much to know further particulars, as it was just said at the Gwydir that the woman sits on the thighs of the man, who is sitting on his feet, which seemed to me very unlikely. Here the woman lies on her back, raising and spreading her legs. Thus there is no difference between the copulating of Whites or Blacks and they are not closer to animals by copulating from behind. In the camp before Burun I saw only young men and boys with few female children and no young women. I wondered about this and thought perhaps they took less care in the upbringing of female children than the males. But this is wrong. When I came to Burun I saw a large crowd and almost exclusively children of female gender and young girls of 10-12-14 years of age. Some of these grown-up girls were very charming creatures. They were small, but extremely well-proportioned and it seemed they showed the same youthful pertness and the joyful wild spirits that has filled many a European girl of the same age as well, with the difference that they move their well-formed bodies and their finely formed limbs most gracefully and extremely freely. The face itself was acceptable, but the flatly pressed nose in the face of the male and female Blacks always remains an insurmountable obstacle to approach the ideal European beauty. However, the artist would not get weary of observing and studying their bodies, be it that he admired the play of their back muscles, when he walked behind them, be it that he saw them throwing and swinging spear, wommara and waddi, be it that he viewed their groups sitting, lying and squatting. It is true that very old women with swollen stomachs, hanging breasts, folded and shrivelled inguinal regions, and thin feet often mix among them disagreeably. However, this is the shrivelled human form, which of course is not concerned with the judgement of human beauty. Fat men and women are never seen and the largest lump of fat would alone be possible to keep the plump forms in old age. Several powerful male figures were seen among the warriors at Burun. They had painted themselves red. As I heard, this is said to often signify mourning, perhaps for the death of Ubi Ubi. They received us with signs of great joy, and the old women sang songs about our arrival. The meeting of Nicki and his wife again seemed very affectionate, although sparing of words. He took his two month son in his arms, regarded him with pleasure and kissed him. He seemed to show him great tenderness. The young women mix among themselves, never among the men. The elders have a seemingly deciding, or at least very influential vote.

The Blacks living in the bush find fault with those, who join the Whites and live close to the stations. In the war song he reproaches those, who no longer come to hunt kangaroos, and to catch possums, and who don't take part in the battles, and are rendered weak from living too much with the Whites. Then he sings: "Why do you not give me women, kangaroo skins, pipes and tobacco and hatchets! I gave you all these and you give me nothing". The accused answers usually with

an excuse: "I do not live in the dwelling of the Whites; the Whites are angry with me: I have no pipe, no tobacco, no hatchet; I live in the bush". As long as the Black, who enters into communication with the Whites, exposes himself to the criticism of his brothers, the less is to be hoped of his attachment, that is as long as the wild population in the scrub remains isolated from the Whites. Some tribes live continually in the bunya scrub, others come there only at the time of maturity of the bunya fruit and return back to their home after the harvest in one or two months.

We had several conversations about their doctors. It is something quite extraordinary for a man to go alone into the bush and remain out alone for several nights. The Blacks are so very frightened to be alone. {They call the devil that leads them from one place to another, Manni and another Doran (Dorran), who comes when a women dies.} When they come back to the tribe, they pretend to have swallowed stones, to have spoken with the devil and to have often been moved from one place to another by him. If such a Black meets two or more other enemies, he can sink into the earth and appear again at a safer place. Gumerigo, a kipper, pretends to be able to do all this and the others believe him. He makes up corroborees when he baths in a water hole and says that the devil inspired him. I often was amazed to see with what freedom he dined everywhere too. Without further ado he claimed his share of the bunya fruits. He never climbed a tree, but let the others do this hard work.

Our Blacks told us that the women in the bunya scrub would call to us as follows: "We are afraid of you. We are not your enemies; we only came here to collect the bunya fruits".

It seems that the Bunya Bunya Blacks and those of the sea coast eat certain parts of the corpse of the dead. The Blacks around Archer's station do not do this, or perhaps only very old people. Venereal disease is already emerging among them. Barney had lost almost his entire glans. Boils in the inguinal regions and between perineum and buttocks are frequent. They don't seem to be venereal. The women of Brisbane and the coastal Blacks are very frequently venereal.

I was told that their corroboree bolimbe bolimbons, imitated the call of the king parrot. The coastal Blacks have a corroboree song, in which they glorify the arrival of the first ship.

They told me some more of kallibar or dagann (Ni[cki]), that unknown animal, which is said to live in deep water holes and which creeps along over the Blacks during the night and is said to even bite them.

When we returned the Blacks looked for the transparent gum of the dogwood mambobill, which they eat.

2 January 1844

I have again got some *Limneus*[?]. The day before yesterday Bombjohn brought me a 9-10' long wongai snake and a fresh water tortoise. I have already stuffed the former. I will try to clean the latter tomorrow. It has a pointed head, thick eyelids and horny tubercles over the neck. Paddy brought a species of rat, bottun, with scaly tail, four toes and a tubercle on the fore feet, five toes on the hind feet. The penis is well in front of the testicles, which are very developed at the present.

From the trees I made hand specimens of yikko, tibbura, *Araucaria cunninghamii*, and murram and collected fruits of dulabi. *Clerodendron* also has developed its blue fruits in the red calyx. Durrundurr, a myrtle tree with the panicles or racemes of small white flowers, has almost finished flowering. In the creek a shrub was beginning to flower, on which I have waited these last four weeks. These trees grow directly under the mountain. Yikko has good timber and splits finely and easily.

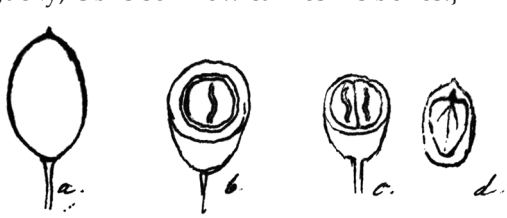
3 January

I cleaned the tortoise. Its neck is covered with strong horny tubercles. She had eggs, but not very developed and was very fat. I began the collection of forest trees: manderoljan, manborri, forest oak, appletree, ironbark, turpentine, *Banksia*, cherry tree, teatree and dogwood, and moreton bay chestnut. The Black boys helped me a little. My plant collection was packed up together with my stuffed reptiles to send them to Sydney. It is striking how quickly the dew descends just as soon as the sun has set. I left my paper to dry only five minutes after the sun disappeared and it was already quite wet. In the morning the dew lies for a long time despite the heat of the sun. Thick threatening masses of cloud continually appear on the eastern horizon, but as they came higher, they mass together, separate from the wall of cloud and drift through the sky as cumulus clouds.

The curlew again sounds its melancholy shrill call in the night. Does this perhaps signify the arrival of the rainy season? {Buyura Pad[dy]. Gollurn Dav.}

Forficularia with[?] two yellow spots on the elytra is very wary during the evening. It flies easily and ran quickly about over table and book.

{When Ubi Ubi died, his name was no longer mentioned by the Blacks and because they gave the same name to a Whiteman, a boy said when he told the White, white fellow name bail me ula you pitna [...] the White, whose[?] name, as you know[?]' I do not say. Jacky, Ubi's son now carries his bones.}



*Tangurir a. fruit b. transverse section with only one seed developed c. transverse section with 2 seeds d. embryo

A. perfect fruit b. longitudinal section 1. the internal black skin 2. a green thicker membrane 3. a whitish gelatine 4. a yellow gelatine, in which the embryo 5. the form of this embryo two spreading coyledons is given in c.*

6 January

[Letter written in French to Gaetano Durando. Aurousseau, 1968: 684-704.

{*Undiram the black sleeping lyzard.}

Tarabar No. 35 bark white smooth scattered lentilli, section of the bark thin, reddish with greenish white lamellae or layers, wood white.*

16 January

On the previous Wednesday I rode to Brisbane to see whether my plants had suffered from the continual rain. Mr John Archer and Mr Waterston accompanied me, the former on business, the other to return to Sydney. On the same track we met Mr Thomas Archer, who brought letters for me. I received a letter from Helenus Scott of Glendon after a long wait, who communicated good news to me about the letter of last year. Two letters were from Mark, who in one invited me to come to Mt Macedon as a partner in the role of superintendent, whereas in the other he communicated his changed plans. Mr Lynd in his, expressed the wish to see me soon in Sydney again. New plans, whose working out frequently occupied my thoughts, can be attached to each of these letters, added to this that I found all my plants damp and that I

had to dry them all before the fire as well as can be done. This made me feel the necessity of returning to Sydney soon and arranging the plants I had. I decided therefore to arrange my things, send my wood specimens to Sydney and then again head for the south myself. Whether I will be able, as I wished, to visit the vineyard at Glendon, I still do not know. I intend then to work in Sydney in the next winter so as to go to Port Phillip in the coming spring.

My journey gave rise to very few remarks. The Blacks at Pine River and around Brisbane have suffered very much by their contact with the Whites. I saw a young woman with a small child of two months, who was about 16-17" long. The child was a very bright colour, but the mother had rubbed it over with charcoal and by no means wanted to have it, as it was said that it was the child of a Whitefellow. The mission was filled with a crowd of Blacks, who knew how to avail themselves of the corn and potatoes when they come to maturity. They are now ready with their "what name?" or "name" just as soon as they see a strange face. The mission brothers or their families were all suffering. All children have coughs, which is connected with the rainy weather. The town is full of young cockatoos, and redshoulders, king parrots and blue mountain parrots, which the Blacks bring out of the forest. Mr Gregor had some young *Lathamia* of reddish grey colour, strong feet, yellowish timid sharp eyes, the beak of the hen and very developed feet. He also told me that in digging his garden he found an extremely long worm (16" long). The mosquitoes never tormented me so much as in the river scrub opposite Griffin's and both the nights on Griffin's station were some of the most uncomfortable that I've experienced on account of the large numbers of fleas, ants and beetles. While the large dark butterfly still wheels around here and there, the small yellow ones are in large numbers on every moist spot. {I caught a fine black spotted *Myrmeleon*.}

A beetle larva is destroying the melons in the garden of the settler (Mr Archer) and two grey species of cerambycid are eating the bark and the leaves of the young vine shoots.

The moreton bay appletree *Angophora cordifolia* is entering into blossom, as well as the bloodwood (bunah), the ironbark is still flowering, if it is not another species, which is found about Brisbane. Dibilpalam ought to have flowered soon after my journey to Durval. The hills over which the track leads are covered with dambamm (benjoe gum). A dioecious shrub, male and female flowers in a kind of catkin grows along the Tibbura Creek (the second from the mountain). If I am not mistaken, tibbura will come into flower in about 14 days or three weeks. The forest oak is likewise in flower and the male trees are in yellow catkins. On the Brisbane the moreton bay *Bignonia* and a yellow Asclepiadaceae? are flowering. A small tree was full of shoots in corkscrew coils[?]. Bannilnollball was still flowering and forming fruit. The capped mountain *Acacia*, which I saw between Mack[enzie's] and Bigge's, was found in flower on the hills above the Windmill Hill as well. The *Mimosa* was flowering in the Government Garden, which Foot[?] positively stated as coming from the scrub. The *Mimosa* that I found is substantially different from it. It seems that the Malvaceae shrub in the Gov[ernment] Garden is another species of woolly leaved *Hibiscus*. Of the two trees that Foot[?] showed me, one is the wombalang. I never saw such a beautiful specimen of *Pigea flava* than at the mission, also the bean was seen on the whole journey. Griffin's scrub is very different from the scrub of Archer's mountain. I saw very many new trees and a new proteacean. According to Mr Petrie's statement the tulip tree is a tree that seems to consist of a large number of coalesced shafts.

I was given a piece of bark, but I was still not successful in finding the black resin in the small tree of our scrub. The tall fig tree opposite Griffin's house was remarkable and the blue fruit of poi poi, a small tree was in flower and a tall tree kel as well. The following names were given to the various bark specimens by the Blacks:

1. Madra yellow albumen marrirang J[immy]. Morrang Mickey Nom brother marrang
2. No grotu
3. Ombra
4. Gundul pundra - gundulalbilo
5. Bulnall
6. Ununguunn
7. Kel
8. Bunda
9. Pragan pragan
10. Buppa (bopa) muji Mickey.
11. Binnaborro- binnam?
12. Bar
13. Kulligolli (red cedar)
14. Kurangi (gallirbill)
15. Bambra (a proteaceous tree?)
16. Bagrogurul
17. Murrur (gnangä)[?] gobinnan Micki
18. Dangurri- dangurrir
19. Yarrong - yarrung (vine)
20. Ballan - dei Jimmi yul Micki borran

Lythrum was still flowering in the gullies between the hills and on the waterholes. On the hillock of one of these gullies the hazel-leaved shrub was in flower and the legume with racemes of red flowers in beautiful specimens. Along the waters between Worarba Creek and Myrtle Creek a tree is abundant that resembles bomboyum in leaf and fruit, but whose bark is different. A tree with white bark and with dark green, lanceolate leaves was seen along Scrubby Hill Creek. The fruits of durrundur are getting red and have a pleasant acidulation. The fruits of ballin are ripe and taste not unpleasant, but the sharp outer skin caused a light burning in the stomach.

As I mentioned previously the rock between Archer's plateau and the settlement is talc schist and sandstone. The talc schist was often intersected by an extremely large number of milky white quartz veins. At some places the talc schist is very distinct, light greyish and laminated. At some places it can be used as fine whet stones. The soil is often a stiff clay soil in the gullies and along the streams, it is often a loose mixed soil of clay, sand and talc schist, into which the animals sink deeply in wet weather. Between Griffin's and the mission there is a stretch of fine black soil mixed with white pieces of quartz. Where the box grows white clay is probably found underground.

The weather was a sequence of heavy showers before and after full moon. These fell particularly in the morning until about 11 o'clock, then they would stop and the weather continued fair with rare exceptions. Heavy cumulus clouds drifted through the sky particularly towards evening, but as the moon rose the sky cleared and remained so throughout the night until at daylight light nimbus clouds again draw over and sent down showers. Now the weather seems to be going to clear up. We are far advanced into the last quarter. The wind seems east and southeast.

[blotted] January again rainy weather, frequent showers, overcast sky.

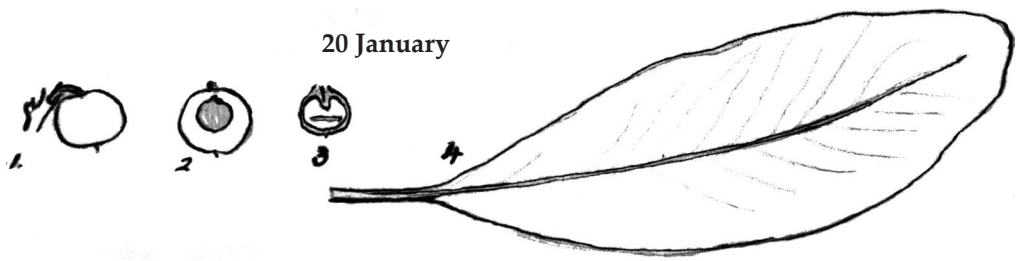
17 January

*The Baba pigeon bluish grey front while throat whitish, two white bands round the breast belly white with black spots particularly at the flanks and under the wings, inner side of the tibia dark grey, feet

red, dorsal margin red, red at the spongy part of the beak.

Manimä is the name of the large pigeon which calls Womp uo.* It was very striking to see how quickly a fungus vegetation sprouted out of the fresh cow dung at Captain Griffin's tent and the dung coloured almost white.

20 January



1. The fruit (a blue berry) 2. longitudinal section, showing a kernel surrounded by a spongy fleshy white parenchyma (sarcocarp) 3. The Kernel a little magnified, a horny albumen in the form of a kidney contains in its apex a straight horizontal cylindrical embryo. 4 the leaf of a glossy green superiorly, a pale green inferiorly, margins curving slightly undulating

21 January

The bloodwood has very powerful roots and an immense taproot.

It seems that the Blacks lack the words grandfather and grandmother, the father dying before the son has children.

My stay in the mission and the close association with David and John Archer showed me how far my religious views differ from the orthodox people. Everywhere here I run my head into a wall. What my studies taught me and what my observation of nature allowed me to comprehend in association with natural laws is completely different for them, who think all of it is cursed, all of it is sin! I must put myself back into those times when nature still lay as a mystery before me, when I looked on in wonder without noticing the connecting threads and when I surrounded the mystery with the halo springing from belief. How little I know now, but how obvious it seems to me, what I previously failed to connect. We adopt laws that perhaps are not completely understood, but once accepted, these make an extraordinary contribution to an unbridled assessment of human, natural, and divine relations. What is more absurd, what is more insane than the irretrievable sinfulness of man; what is more contrary to all reason, more nonsensical than that a curse lies over the whole of nature? We study this nature and every day we find more to admire, we sense its uniqueness, even though only fragments have become clearer to us, we sense them as the announcement of an omnipotent, omniscient being, whose presence reveals itself in nature much more visibly than in a direct but questionable revelation, with which all natural laws are in conflict. And as we become engrossed in these inexhaustible springs of new knowledge, of new

manifestation, those narrow-minded biblical saints, who seldom know anything of nature, come and tell us "nature is cursed, so it says in the Bible and we only hold to the Bible". It seems to me as if each day I become more and more blind, as every day the absurdity of those saints seems more intolerable to me. Hear what their enraptured tongues stammer about the sinfulness of the flesh. The physiologist is not finished unveiling the splendour of the human body to us. The marvels of procreation, of nutrition, of movement, of feelings are the themes of daily praise. The moralist is amazed about the depth and diversity of human feelings and the psychologist seeks to reveal the laws, according to which the human mind works. What the physiologist and psychologist accept as the consequence of the organisation of the body for the attainment of highly proper purposes, the obscure believer decries as sin. We have a stomach and need to eat and if in consequence of social condition our poverty leaves our plates empty, we are inclined to take it from our neighbour. That is sin! We have organs for generation and therefore affection for the other sex. If social circumstances prevent us from marrying, we are inclined to satisfy these instincts against social laws. Here again is deep sin! Let me just acknowledge that the laws of society must be sacred, that our will must be strong enough to be master of our instincts, that our upbringing must contribute to strengthening our will. Everything for which I battle is that these instincts actually are not sinful, that God, who made us, would have to have been a malicious devil, instead of a benevolent being, if he wanted to punish us for the instincts that he planted in our body and of which we know are most intimately connected with the preservation of the individual in the species.

The stay in Schmidt's dwelling has passed for me without effect. I love the man, he is a good noble creature, but he is so much at home in his faith and has occupied himself so little with other studies, that he is devoted and happy with his dogma without any questioning. And it is just the dogma that I hate from the depth of my heart, which I look upon as the arch-enemy of all humanity. What significance can it have that we <u>believe</u>, if our actions have nothing in common with the other aspect of Christ's teaching? Do we not despise the preacher, who indeed speaks fine words from the pulpit and probably believes firmly in the Trinity, in the only begotten Son and all miracles of the Old and New Testaments, but perhaps in the next hour quarrels with his neighbour and acts towards him with immorality. I have always strived to adhere to the ethics of Christ as closely as possible. I have often felt that the yearnings of my flesh make it difficult, but because on the other hand the will fortified itself and prudence and chance protected me from tempting relationships, this difficulty was never insurmountable. I regarded myself as a Christian, because I admired Christ himself and completely emulated him, but all miracles, all dogmas of his evangelists or disciples are quite lost on me, I believe none of it! What I accept is the consequence of rational induction, e.g. the presence of God and the immortality of the soul. I am not averse to the simple ritual of a Christian church. It is a rallying-point and the church helps to connect us with God. Some ceremonies, like baptism and communion, as ceremonies, not as acts in which God directly enters us, I would gladly defend, the more so perhaps, because an old memory makes these acts precious.

*Kealum the centipede very large 5″ long under the large trunk of a tree

Dudungurr Simon a tree which Jimmy Commandant brought home.*

24 January

Mr Griffin told me that he had killed the brown rat with a large number of young on the teats. No pouch.

The rain that began on Saturday (21 January) continues almost without interruption. The wind is still in the morning, but the clouds are appearing from the eastern quarter. At 11 o'clock the sea wind appears with considerable strength. The rain, at first in showers with hot sunshine in between, becomes general with only slight interruption.

All frogs become loud, the large grey one with white border around the mouth, a small brownish one. A small green frog of bright grass colour. {Trauin[?] Nicki tsei (tse) Paddy. the big green frog.}

The king parrot a noble bird with golden iris.

28 January

As early as Wednesday evening the wind began to turn to the west. It seemed as if it went back to the west through the south. Next morning there were no clouds in the sky and a light wind blew from the west. It was very hot and at midday thunder clouds appeared on the western horizon. The storm did not approach, but probably moved to the other side of the Bunya Range. On Friday the sky was covered with clouds. At 11 o'clock the regular sea wind began. Thunder storm with little rain. Saturday the same cloudy sky, although overcast, calm, at 11 o'clock sea wind, showers from south-east and east towards sunset and during the night. Today on Sunday clear sky, light breezes from the east.

It seems to me that under certain circumstances the wind can jump immediately to the west and remain without going through north. I have observed this in the spring and also now and explain it in the following way. Two streams of air are over one another in this region as also in Wide Bay, a lower one from the east and an upper from the western quarter. This upper one sinks under certain circumstances, if the easterly becomes too weak and so suddenly sets in without the regular change. Probably the commencement of the rainy season is connected with certain conditions of this upper stream of air, which for its part is affected by the position of the sun.

3 February

The last days of January were again interrupted by many heavy showers and the 30th and 31st almost uninterrupted rain. The water in the creek rose up to the edges. The wind again easterly. On 1 February still rain, but the wind began to become variable, more so on the 2nd; in the evening westerly wind, seemingly changing with the easterly. Clear night. Sunny morning of the 3rd, but in the afternoon easterly heavy masses of cloud. In the evening again fine, just with bright light clouds, dark masses from the north on the mountains.

<u>David</u>

On 10 December I operated on David. The child recovered after the inflammation was over and when I returned from my second journey he was lively and showed no trace of illness. In the middle of January, probably as a consequence of too abundant vegetables and of green watermelons, the rind and core, the whole of the alimentary canal seemed to suffer from a kind of thrush. This disappeared in about a week, but the child remained depressed and to my great disappointment a swelling in the scrotum appeared again on 27 January. A bluish spot was noticed and it seemed probable that the child had injured himself again with a hammer, but the next day the child had an attack of vomiting, which weakened him severely and when I examined him further I found a hard swelling of the left side under the false ribs,

just where the spleen lies. The child's pulse was rapid and hard and inflammatory. I regulated the diet on the first day, restricting the child solely to rice water and rice. On the third day about midday, a new attack, the child almost unconscious, his eyes closed and his pulse extremely fast. Heavy bleeding and two bush leeches on the spleen region. Castor oil one spoonful internally.

About evening the child's appearance relaxed normally, he was the best in the morning and evening, but he was very restless in the night. The castor oil acted once in the night, five times in the morning, watery stools. At midday suddenly a substantial brown stool with white masses. I now thought that perhaps old faecal masses remained in the alimentary canal and prescribed several doses of castor oil in the course of the day and evening. The stools had the same character, but the white stuff failed to appear. The child had similar attacks at the same time on both the following days, which usually began with vomiting. The child is very weak. His pulse rapid, but weak, the function[?] of the skin seems regular, his breathing is rapid, his intellect is not impaired in the slightest. The child is asking to drink and to go to the lavatory, has wished for favourite foods and is very afraid of me, because I caused him great pain during the operation and on application of the mustard plaster. In such cases the operating physician stands at a disadvantage, since not only should he not be feared but through his presence alone should act to calm and heal.

Mr Thomas Archer had the tertian fever. Some chinine powder (3-4 grains of sulphate of quinine) relieved the illness.

6 February

The illness of little David has taken on a more definite character. The attacks of hotness, in which the pulse was very rapid, although after the bloodletting it was weak, occurred as before, but a new attack of coldness, with cold extremities went before them. It is a regular daily fever. I have begun to give the child chinine and this seems to work very well. The dose is at first one grain of sulphate of quinine in the morning, before the attack and in the evening. I am now hoping with God's help to master this illness.

During the continual rain I have read a large number of poetic pieces of Walter Scott. The Lady of the Lake surpassed the remainder by far through the beauty of the language, by the freshness and truth with which nature and mankind are depicted and by the vivacity of the action. There are, however, in all these poems beautiful descriptions of natural scenes, with which a frequent reading must make us intimately acquainted. The *old Baron* by Mrs Reeve[1] is extremely insipid and meagre, nevertheless, very good for pedagogic purposes.

[Letter in German to William Nicholson. Aurousseau, 1968: 721-729.]

15 February Thursday.

Sea breeze strong at 10 o'clock.

On Saturday morning when I had already loaded my black mare and only waited on the arrival of the other to start for Brisbane, the long wait for the latter compelled me to take off the load again and to look for her. Finally I found her so lame in the left hind foot that I could no longer think of departure. The weather changed again too; heavy showers of rain fell in the afternoon, and lasting rain began in the evening and continued Sunday, Monday and Tuesday. On Tuesday it cleared a little, the clouds broke, but the wind, which blew strongly from the south-east on Tuesday at 11 o'clock, became still towards evening, the sky clear (but with humid atmosphere), in the night showers of rain. Wednesday showers, strong irregular

south-east wind from 11 to 3 o'clock, night fine. Towards morning showers. Thursday showery weather, always calm in the morning. {The air is mild. In the morning cold, so that we have a fire. This probable summer heat that is setting in is extremely oppressive and seems to come straight from the East Indian heat.}

I read Robertson's *History of America* and *Scotland*. *Zeluco* by Moore, and *Taddeus of Warsaw* by Mrs Porter (the latter might contribute to studying the feelings of women and their views about men). [2]

The history of Cortes and Pizarro has never satisfied me. My feelings were always shocked by the inequality of the combat and by the outrageous cruelty of the conquerors, but Robertson is an excellent researcher and seems careful in his sources, and develops the events with great clarity, satisfying us with the depth of his perception, with the development of general ideas about nature, about the people and holds us with his light, clear style.

We had some discussions about *Pickwick at Home* and *Pickwick Abroad*. I maintained that the former work on the whole surpasses the latter, as the whole English nation, which it draws into its burlesque circle, towers over the needy crowd of the English in Paris. Charles Archer did not want to confer any value either on the one or the other and he rejected both as light reading, which would only be read for a short time and then would be forgotten. *Pickwick Abroad* is a worthless book, although some matters have not succeeded in a translation. *Pickwick at Home* is a masterwork of a genius, which may lose its freshness in the course of time, but which will be read with pleasure as a snap shot of the present in later times.[3] *Zeluco* is in general dull, but the book is not without psychological value.

The brown millet gives an excellent porridge, easily digestible and in this respect better than oatmeal porridge. For bread the flour is not doughy enough. It might with advantage be mixed with wheat flour to bake damper. After long boiling the grain becomes soft and cracks and might with advantage be squeezed through a colander. The best way, however, is to grind it and then to use it. Perhaps pancakes could be made with it.

I treated the *Caladium* roots like the *Jatropha manihot* (Cassava). I washed the herb, peeled it, grated it on the grater, squeezed the juice out, and dried a part in a pan over the fire. I hung another part for a day in a continually running gutter. The poisonous principle almost disappeared completely, but the mass still remained somewhat stinging. You might eat it if necessary, but it is not pleasant. A white material precipitated in the juice, on the second day fermentation began, which is still continuing now. The Blacks say that the root is never good in winter. They dry it first over the fire, by laying it over wood. Then they pound it small with stones, roast it again, beat it and roast it for the second time, whereupon they eat it.

<u>I. The build of the Blacks</u>. The size varies among the different tribes. The coastal inhabitants, Nynga Nynga, are much taller (5'8"-5'11"). The inhabitants of the scrub and mountains are small, stocky and strong. Examples of strength in endurance. Paddy and Croppi carried 60 lb on the head 16 miles and 16 miles back. Paddy brought the branch of a bunya bunya at least 70 lbs weight from the scrub at Nurum Nurum. They carry remarkable pieces of wood, mostly on the head. Their hair is black, somewhat curly (which probably depends on the length and the tying up) never woolly. They have a large beard growth and are proud of it, although sometimes they pluck it out to make a bigger impression on the enemy!! Their private parts are covered with heavy growth of hair

in women and men and even the body is more hairy than in the majority of Europeans, although I have not noticed large growth of hair on the breast. The body colour a dark brown, frequently with yellow light shading, particularly in small children. Clara (Nikki's wife[?blotted]) was lighter, yellowish. {took away colour} The child on Griffin's station was very light, which they mockingly called a white child, but the bastards whom I saw had a very different colour. The sole of the foot and the flat of the hand is white, so that you cannot distinguish the sole of a White and a Black. The teeth white, yellowish thick, worn, rarely blackened, but I have seen indications of hollow teeth. The women are very broad in the backside, their knees bend inwards very much and they sit and walk with their feet almost one over the other. They are completely unfamiliar with salt and reject it, although the young ones quickly get used to it. They dislike vinegar just as much (although the gnange fruits are sour) or pickles. They like watermelons, but despise rock melon. They like maize, wheat flour, bread and millet. It seems that they prefer bread even to meat. They are able to eat extraordinary amounts (see bunya), but as well they know how to endure hunger for long periods. They are not insensible towards female charm. They love fat women, the men (Nikki) are often hospitable, they even show great affection to White women (Miss Pringle — Charley admired Jones's daughter very much). However, they treat their women often with great cruelty. The women are of a foolish, cheerful character, like the children and probably their foolishness is often the cause of their hard punishment. In general they seem to have little influence on the men. The young men, however, show less desire for the women around them than for those far away. The elders seem to keep them in fear and obedience and compel them with threats of superstition. Then they seem to get accustomed to the women of their tribe, just like sisters, because it is forbidden to marry the sisters of the same tribe. Charley looked quite differently at the women of the Nynga Nynga than those of Durrundurr. {They are not jealous as they relinquish their women to the Whites for tobacco and bread, but they are jealous of their enemies, who sometimes steal women and they take revenge on them (Baker), but in general great decorum prevails among them and they were very modest explaining the act of copulation to me.}

Although the Blacks find sufficient food at every season, they still must make every effort to get it. The continual climbing of tall trees to look for fruits, possums and honey is just as invigorating work as hunting after kangaroos, kangaroo rats and bandicoots. The women often must dig 5′ and 6′ deep holes to find yams. The men are always occupied with their hatchets finding beetle larvae in rotten trunks. The stone axes make this work very hard. They almost never tire out in the use of the axe and often they have surpassed me five times in endurance. The battles and longer marches preserve the war-like spirit and give the body endurance. The regular continual exertion applies more to the inhabitants of the scrub, as the coastal inhabitants are able to collect the necessary food in oysters and crabs more easily.

The Blacks are well-formed, but Paddy was one-handed; the left hand had a well-formed upper arm muscle; the forearm weak and short, a rudiment of the hand and only a fleshy appendage, which was used like a finger. In other respects well formed, and intelligent; he has several wives, and many children, who are all well proportioned (Simon, Dusty Bob, Marian and several others, a fifth Micky). Others have broken bones that were poorly stuck together, others lack toes, which were burnt off, another was lame in consequence of an injury to a hip joint. Many were blind in one eye (millbony).

Women and men show great love to their

children. Great patience is shown to the children, but it is possible that this only goes so far and they are able to kill or leave their children. There are no examples among these Blacks, but many examples among others. The mortality of children is insignificant. ~~All children who were born during Archer's stay are still alive~~.

~~The black colour prevailed on the hottest parts of the earth. New Holland can scarcely be ranked among the hottest parts of the earth~~.

I have never seen an albino amongst these Blacks ~~but I have heard that there was a spotted Black in the Bathurst region. Mr Ar[cher?] said the spots are like~~ [sentence unfinished]

Age and health. The children and young men often suffer from boils, especially on the feet, and under the buttocks on the perineum. I have opened several and brought about great relief and rapid healing to the sufferer. The older men suffer from rheumatism in the knees (I have applied mustard plaster with advantage). Occasionally their eyes suffer, usually in consequence of injury by fire. Venereal disease is beginning to take root and even poisons the child in the womb. Development takes place quickly particularly from boys to young men. They do not become old (they seem to lack the word grandfather), 50 years is perhaps a great age, but it is difficult to determine this point. {This is not general. Jacky's brother had children when Ubi Ubi was still alive, but it seems to be rare.} Perhaps they lack grandfathers, because they are not allowed to marry during the life time of the father??? Still I have never seen very old men. I saw a man with a grey beard among the Nynga Nynga and at Durrundur and Burun. Old women in the tribes on the coast with toothless jaws (at least the hollowed mouth allows toothlessness to be concluded). They seem very talkative, but they do not seem childish. It seems to me that most of the old people die in consequence of catching colds or through the influence of the weather in general. I found asthmatic persons and a short cough that usually leads to the grave (every old man in Burun, Abel &c). Small pox often sweeps whole tribes into the grave. Often I've seen the young men suffer from over eating (e.g. on our march to Biroa) — bunno. I've never seen paralysis, likewise less severe inflammatory illness.

<u>II. Quality of the intellect</u>. The higher mental powers are less developed, but on the other hand I must remark that the language is unknown to us to determine this with certainty. Some of their customs seem to be founded on very logical deductions. The legend of Bayami, of Birall, of the cause of small pox, shows that they occupy themselves with thinking about the cause of things. {The preparation of certain foodstuff supposes much observation as well, e.g. *Caladium, Castanospermum*.} Fear populates the water with evil spirits. The elders keep the young ones in check by fear and safeguard the food necessary for their old age by forbidding the young ones to eat certain animals. The intermarriage with other tribes also shows judgement. Their festive corroboree dance and their fights, by which they sustain the warlike spirit, also show sound judgement. They do not steal from themselves, although they permit robbing from the Whites. They avenge murder and injuries. The sharpness of their intellect and the use of it for the discovery of their food and in their defence is very keen and developed. Only those moral principles, which have been ingrained from childhood, are strong. Their desires are usually stronger. They give up their women for momentary pleasures, they separate from their children more reluctantly, they will not injure their brothers or friends and defend them well; but with greater incitement they can become traitors. Their passions are easily aroused. Some days ago Sandy

almost became their victim. He hit Paddy's son, who witnessing the incident let fly like a fury at him with his tomahawk. Often the most unimportant circumstances provoke general fighting among themselves. A few weeks ago several had killed a kangaroo and when their less fortunate comrades wanted to take their share, they did not allow it. The others began to reproach them and suddenly the fight began. Their desires can only be controlled by fear of punishment. The women seem more given to stealing than the men (perhaps they are sent out by the men on such dangerous business). Mostly they have to suffer from the anger of the men. Love of children is great. {Budger Yarena! (v.d. Nynga Nynga)} They are very attached to the soil on which they live and from where they were born. So they seem to suffer very much from homesickness. They are very hospitable even among themselves and towards Whites (even if fear does not explain their desire). They are very brave in their fighting and despise or laugh at the coward.

The Blacks only count up to three. They distinguish five, which is the number of fingers on a hand, but even this is not typical. It is interesting that neighbouring tribes have different names for the three numbers.

III. Social condition. They live together in little families. The whole tribe only comes together to fight and not several friendly tribes. They lack chiefs. The elder alone has some power. The boys (piccaninies) were initiated by degrees into the secrets of the elders; they were made kippers and young men and finally were admitted among the elders themselves. They marry by either stealing a wife or by being given one by a member of a friendly tribe, usually after distinguishing themselves in fighting. They often have three or more wives. These wives often live with their own tribe and when her husband visits[?] the tribe, he can use his wife, who lives there. The children live in this case with the mother, thus for example Ubi Ubi, Paddy - two very respected men among the Blacks.

The wives are slaves to their men, but their work is restricted by the circumstance that the most popular food is reached only by the climbing of trees or by hunting. The women are not fit for both. Armed with their wooden billiya spade, they go into the bush, digging for yams, or into the marshes looking for bangwa ferns. They gather fruits under the trees, dig the *Caladium* roots and prepare them. They make dillis from *Xerotes* and honey gathering equipment from the nettle tree (kimbi). They give birth easily, but they seldom have more than two or three children. They carry these in a kind of basket or dilli until they can walk and even then they carry them on their shoulders. I have seen them sometimes carrying two children. In general the children behave well, but there are also spoilt ones among them. The affection does not stop with walking. I have seen mothers, who as it were proudly accompanied their adult sons. {Charley.} Although filial love appears less striking, yet I have seen grown up young men, who introduced their mother to me with great pleasure [and] satisfaction. {Many circumstances between man and wife are still unknown.}

IV. Their government. They are in no way dependent on one another. Age alone makes a difference. The doctors also know how to secure a certain esteem. Some tribes are almost exclusively fishermen, others hunters. The boundaries of their districts do not seem to be very exact, although they do not overlap one another far. Indeed the tribes are not so separated as you think. They are more a number of families, who keep together, of whom, however, some live together now with this, now with that tribe. Their food is without exception a free gift of nature, roots, fruits, young shoots, beetle larvae, [...], oysters, crabs, fish, tortoises, lizards,

snakes, birds (if their inheritance permits[?]) and kangaroos, and possums &c. They catch fish with nets, they spear them or they catch them with their hands or poison the water with *Polygonum*, or they drive them together into restricted spaces.

V. War and public security. Their battles bear more the character of tournaments. Both the disputing parties begin the battle song and then stand fast in battle lines opposite one another. They throw their spears, their woomeras and waddis, which they likewise use in hand-to-hand fighting. They protect themselves with their shields, which is 1½-2′ long and 1-5/4′ wide. A Black is rarely killed in these battles, but often wounded. Each one seems to have his opponent and so the general fight becomes a single combat. As soon as one falls or is severely wounded, all his friends direct their spears at the same time against the one, who caused the wound and the latter unable to avoid so many spears at once either flees immediately or often falls in consequence of such a general attack. Blood revenge seems, however, to rest on him until either he is killed in consequence of it, or he pacifies the friends and relatives of the fallen one by gifts. Extermination battles seem to be completely lacking. I have only one example of a nocturnal raid, which I heard from Baker, who lived for 14 years among the Blacks. The raid was foiled. Those attacked pursued the enemy tribe and killed many, including men, women and children. This usually doesn't happen, women and children being spared. In the single combat they use a kind of knife of sharp quartz splinters, with which they make deep wounds in the back. This seems, however, more the sign of personal endurance, as they overlap one another with their arms as in wrestling and then cut into the less dangerous places of the back. The blows against the head, which the Blacks give each other on the Hunter, seem to correspond to this.

It seems, however, that the Blacks try to do all possible damage to other tribes, because they are extremely afraid of falling into the hands of hostile Blacks. A Black never walks alone willingly. He always has a companion, who keeps watch when his friend climbs trees to look for possums or honey. When I went out with a Black and he climbed trees for me, he usually asked me to watch out that no hostile Black surprised him. This fear seemed to indicate the danger to which they are exposed by unexpected attack. Still they have just as much fear of spirits and ghosts, with which their imagination populates the forest and the night. All unknown Blacks are enemies, whom they fear enormously. The southern Blacks call these Myalls and those of the local region Jackooroos. Joint corroboree dances are signs of peace and alliances. The various tribes distinguish themselves in the use of various weapons. The Blacks of Sydney and the Hunter are expert spear throwers, those of the Liverpool Plains know best how to use the wommaring and those of Moreton Bay fight best with the nullah nullah or waddi, with which they exercise constantly in the hunting of kangaroos and kangaroo rats. Mr Thomas Archer constructed a bow. I feared the Blacks would immediately adopt such a very dangerous weapon, but they seemed not to want to take advantage of this important (in any case for them) discovery. This was indeed also the case in Europe with fire arms. The Chinese know firearms and yet the bow remained as their principal weapon. Only a superior enemy would compel them to choose his superior weapon. The Blacks never make use of the tomahawk instead of a waddi, although they could give very dangerous, more deadly wounds with the hatchet of the Europeans. Their superstition serves as another means to injure their enemies. They try to conjure stones into the body of the enemy. They explain illness by the presence of stones in the body. "Yacka mudlu" is the expression with which they

designate this. They go to high mountains (Biroa), watch there over night and seem to observe superstitious ceremonies. Every illness is explained by such magic spells of enemy Blacks.

VI. Art. They paint their bodies with charcoal dust, with yellow and red earth and with white clay. For battle they paint themselves black or red (in Liverpool Plains), for corroborees they paint themselves with white stripes, in mourning they paint themselves red. They know how to raise flesh or skin swellings by incisions on the shoulders, breast and the back, which they regard as body decoration. They string small pieces of reeds on the sinews of kangaroo tails or on string of *Hibiscus*. They decorate their heads with the flowers of everlastings and with parrot or swamp pheasant feathers and often with strips of the skin of kangaroos?. Around the lower body they tie a netted belt. They spin thread of possum wool with a spindle and with this thread they make a netted belt. They prepare kangaroo skin, which they hang over the shoulders. {Paddy's breasts very developed.}

They make small baskets or bags out of *Xerotes* leaves and out of the *Hibiscus* bast. {Woven bags are very artistic particularly on the coast.} They make a kind of fabric from the bark of the nettle tree (kimbi). They make ropes out of the bark of the bottle trees. With these ropes they make nets to catch kangaroos. They make receptacles and their shields out of the soft wood of gundilbill. They make water vessels out of the leaf sheaths of *Seaforthia*. They make their hatchets out of hard greenstone, which they find in boulders in the streams. They make their knives out of quartz splinters, their spears from ironbark, momoyem, mayann and dukko. The spades of their women from billiya, their nullahs from ironbark, from birryam, and from gnanan.

VII. Religous views and ceremonies. The myths of Bayami belong to the Blacks on the Hunter and Liverpool Plains. Birall seems to correspond to the Bayami among the local Blacks — a ghost, who corresponds to our devil, with several other similar ones in water holes. The spirits of the dead come to the camp in the night. The corroborees are occasionally religious ceremonies.

VIII. Curious customs. The corroboree dance. {(The women take different parts in the dances of the various tribes).} The consumption of the dead. The carrying around of bones. They seem to think with repugnance of decay and the consumption of the dead body by worms (D. Archer). However, the consumption of the dead is by no means a general custom. On the Gwydir there are regular grave mounds, which the women carefully keep free from weeds. The stealing of women is also curious. Children and youths play with one another, grappling and imitating the fighting and hunting of the elders. {The Blacks of this area do not break off the left front tooth or mutilate themselves in any way.} They have no spiritous liquors, although they have abundance of honey. {Banah bah guiorr, bye and bye comes the sun.}

Dusty Mandinbi

18 February

It is a peculiarity in character of the Blacks that they give away again what they get as presents from the Whites with seemingly the greatest indifference, although they value these items beyond the moment, being always conscious of their value because of their utility. Thus they constantly ask for blankets, old trousers and jackets, and tomahawks, which are very useful to them, but as soon as they come into contact with strange Blacks, they give all these things away again. The more respected the man, the more he gives. He seems to do full honour to the liberality. Perhaps he prides himself very much on the influence he has on his white friends and thinks he can receive as much as he gives.

Wallobi Jacky

Paddy

*Paddys arm

Paddy*

The differences come from measuring the curves.
length 5′5″
foot to hip joint 2′9″
os cocoygis to the 7th vertebra 1′9″
breadth of shoulders fr. joint to joint with curve 1′5″
length from foot to knee 1′6″
from knee to hip joint 1′4″
length of foot 10½″
circumference of thigh 1′7″
thickness of calf 1′3/4″
length of shoulder to elbow 1′
forearm 10½″
length of hand to tip of middle finger 7″
stump of forarm 8″
circumference of head 1′11″
from chin round the top of the head 2′3″
length of neck 4½″
length of inside of leg 2′7½″
girth of chest 2′10″
girth of waist 2′5″
length of ear 2¼″
breadth of ear 1¼″
from naval to the pit of the heart 9″
from pubis to naval 6½″*

*banah bye and bye (guer Paddy gujo Worradera)

Gnäi (gnai) I (gnae baman I come)

gnin bah you come

anau uah tobacco give me tobacco gnanauah tobacco (Paddy)

anaunah I give knife

ullui (smoke)

gnatto ulliji bannadia I smoke pipe

Urubo gnatto dammadi melon good while ago

mi talto melon

kauure gnatto tai good while me talto

kabbi uann ninnaman bail now nangry

mumba yalliman the thunder cobon strong

gnatto gnauuah me give it

nginungai gnatto gnauo gurrua me give it potato belonging to you

ballla musqrat

ballomon dead

guiarr ballun the sun sets

dudlogo sunrise

yurrumbarr creek

kung uorra ninnaman ringnur water creek nangry cobon

pl[ural]. tangai baman blackfellow comen come

pl[ural]. tangai bammade urubo blackfellow come come good while ago

tombo

darido/tombo gann gninyanna

tarlero yann

yaman ula

gnatto yau mi ula

gnindo ya gnatto kabbi

you ula me bail

dangai karrum baman Jackeroo Blackf. come

yannangai baman the blackmans come

kualim yannan baman 1 blackm. come

yannangai muorin baman 3 man come

gnai yai bijabaman girago

me tigra talo fire

we narangway go

gnallin yango durra

2 fellow come humpis

gnai knallim boya baman (me one fellow talo come)

gnin garrum barba you two no good

(1 tageroo)

uinda narrra dog cobon coolah

gnai yai yauin now me go

gnai banah nabbaban me bye and bye come back*

The 19th Febr[uary]. 44

The night was fine (but with a moist atmosphere and twinkling stars), light west wind began at about 10 o'clock (probably the usual land wind). In the morning this wind was still blowing, but very lightly, while loose rain clouds drifted already from the south-east. Gradually south-easterly wind set in and rain. The sea wind set in very strongly at 11 o'clock. Towards evening it was northerly.

The tobacco plant thrives exceedingly well on a rich garden earth, which rests on a stiff clay. The plants grow 30 foot high, stem 1" in diameter. The dry leaves have an attractive mild aroma and taste. Yet we still do not know the proper species to dry.

20 February

{David Archer left the station to go to Sydney.}

The night was fine. In the morning there was a light westerly wind, which also blew during the night, but the sky became overcast and fleecy clouds became grey, spreading from east towards the western sky. The west wind became stronger about 9 o'clock and the sky

cleared. The moon is three days old. It seems now good weather is going to set in.

On the kulu myrtle I found a new species of *Loranthus*. The corolla teeth turned down (reflexi), yellowish-grey, corolla tube red with five ribs. Leaves dark green, nerves somewhat visible.

I found Mr Archer's dead foal in one of the deep yam holes, which plunged in head first and probably drowned in the water.

21 February 44

The night was fine, the air dry. At 9 o'clock a land wind; this wind blows here in light westerly breezes. At about 7:30 Spica appeared over the horizon. Mars is the evening star. Capella is about 30″ high. The morning was fine, light westerly wind, sky cloudless. A quail nest was found with six eggs about 1″ long 3/4″ wide, spotted dull brown on greenish-grey ground. The nest is unsophisticated formed from grass leaves and some gumtree leaves.

I found a shrub with doubly pinnate leaves, leaflets oblong ½-¾″ long, the ribs crowded with recurved spines. Flower ends axial racemes belonging to the mimosas. Pods disc-like, round with seeds (1″ long, 1″ wide), the flowers yellow. The *Centaurea*-like plant is beginning to flower, also the plant belonging to the amaranths, which I first found at the mission and which seems to like stations and the surrounds of gardens and of grass free places. At the scrub two species of grass, the one with turned down spikes, the other with squarrose panicles (one-sided, like belonging to *Panicum*). {The grass with turned down spikes has a bitter sharp taste. Another grass that grows abundantly here has the taste of plum stones.} Another species of *Indigofera*? in flower and fruit on the mountains. *Gymnostachys* with fruit. On the mountain a tree that I still did not know and a bush vine.

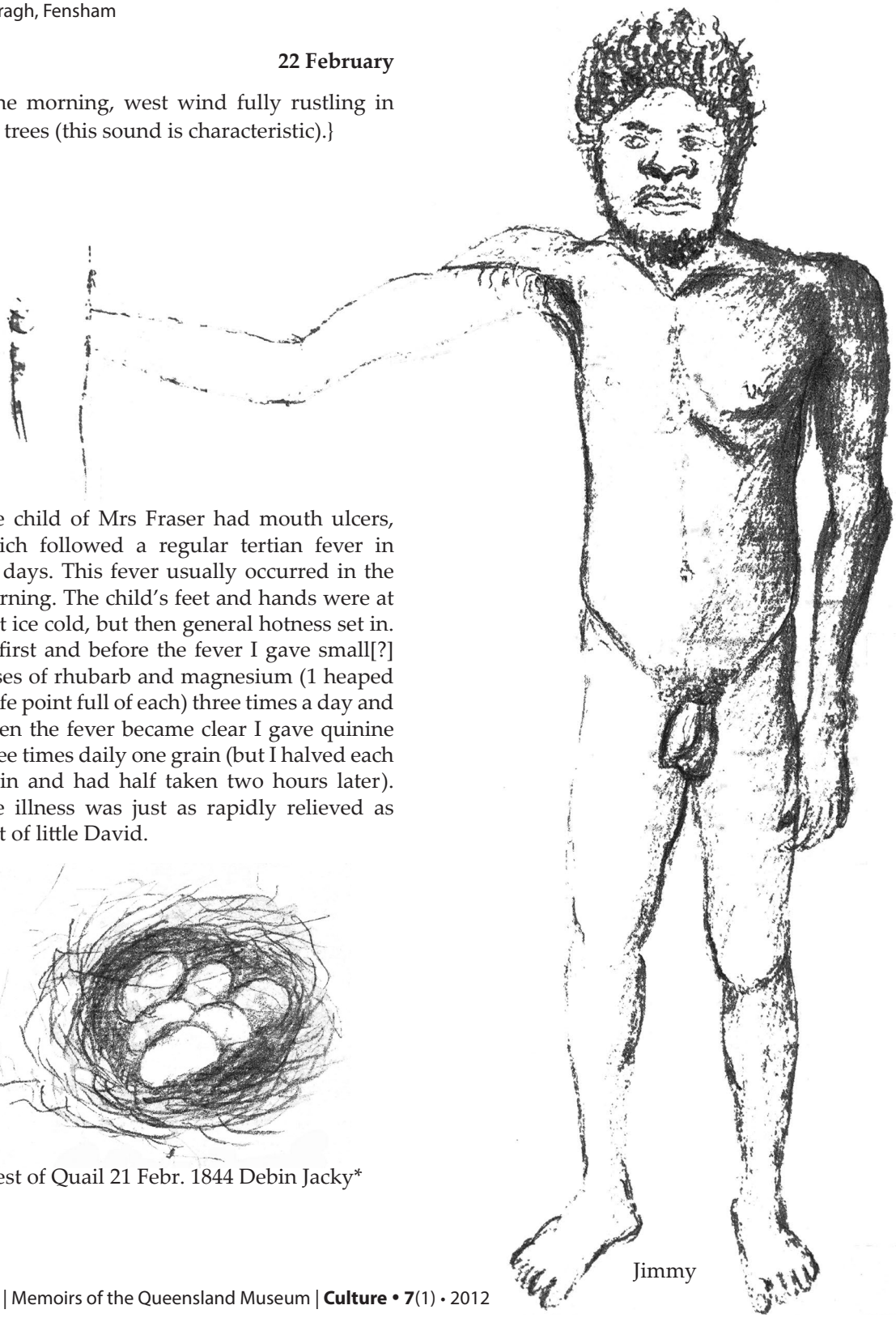
The leaves of the tree alternate, elliptical, sharp-pointed, tapered at the base (elliptical lanceolate) 4½-5½″ long, 1¾-2″ wide, edge with blunt teeth, leaf stalk ½-1″ long, secondary veins very clear (about eight pairs) with reticulate anastomosis. Stipules very small, deciduous. Wood soft in distinct layers. Bark brownish-grey with lenticels.

The bush vine, stem four-edged (with four longitudinal pits), young branches thickly covered with wool, leaves opposite. Leaf stalk 3‴, leaf 4¼-5″ long, 1⅔-2″ wide, sharp-pointed (oblong) arches between the secondary veins clear and long, prominent on the lower side of the leaf. The latter woolly, grey green, the upper side smooth dark green.

Several shrubs belonging to the Asclepiadaceae now seem to be starting to flower. Yesterday I found one of them.

22 February

{Fine morning, west wind fully rustling in the trees (this sound is characteristic).}



Jimmy

The child of Mrs Fraser had mouth ulcers, which followed a regular tertian fever in six days. This fever usually occurred in the morning. The child's feet and hands were at first ice cold, but then general hotness set in. At first and before the fever I gave small[?] doses of rhubarb and magnesium (1 heaped knife point full of each) three times a day and when the fever became clear I gave quinine three times daily one grain (but I halved each grain and had half taken two hours later). The illness was just as rapidly relieved as that of little David.

Nest of Quail 21 Febr. 1844 Debin Jacky

Micky Tonn Binmalli

Mokkamba is the name of the wide belt that they wear around the lower body. Bango (uollnall) is the name of the animal that produces the wool *(brother belonging to Dribbur the flying squirrel).*

Gallilbill is the name of the small pieces of reeds that they string on a thread tied around the neck.

Kayann, a headband that they weave from the sinews of the kangaroo tail and from possum wool *(flying squirril?).*

Kappan is the name of the rosewood.

*Unyalla Paddy black Cockatoo

Durrungall "the ver blanc" near the root of *Gymnostachys*

Nanangall in fruit.

Banderee the artificial sore on the arms*

The grasses

1. The kangaroo grass (*Anthistiria australis*) forms the main mass of grass growth of the district. It covers in dense fine blades the depressions ~~and plains~~, which slope down between the ranges of hills of high mountains and grows here almost exclusively when the soil is moderated by a larger amount of organic matter. If it is stiffer and a layer of clay does not lie under the slight layer of humus earth, the silvertail or blady grass grows just as abundantly and often replaces the kangaroo grass almost completely. In addition the kangaroo grass covers the forest floor and ascends high up onto the mountains where only thick scrub and the fern trees and plants surrounding them, which are peculiar to such places, set boundaries on its distribution. In sandy forests and on the mountains this grass grows more sparsely in separate tussocks. The blades become stronger and grow 4-5′ tall, where the soil favours its growth. It grows in the forest like a field of rye and during the period of maturity at the end of October and November you can ride for many miles through nodding kangaroo grass fields[?], which, however, are covered with trees. On the fertile black *Xanthorrhoea* soil, this grass is found in very separated tussocks, the blades become very thick and high and are very sweet, as is typical. It does not grow on the cold ground of the box forest. Although this grass grows very densely in the depressions along the east side of D′Aguillars Range, it seems less nutritious by far than along the west side around Mt Brisbane. However, it is difficult to determine this exactly, as so many factors combine to favour the thriving of sheep, cattle and horses in this region. Here you have less rain, you have a firmer, healthier pasture and a large number of plants are in the wide flat beds of the streams, which the horses and cattle love and by which they become fat.

2. The silvertail or blady grass is, with the exception of the kangaroo grass, the most abundant in the area. However, it is much more restricted in its distribution with very different soil types beneficial to its thriving. On sandy plains and high banks of streams ~~of for example growing on the flats of Mr Scott and Mr Maconnel~~, it predominates over the kangaroo grass significantly. It grows very abundantly on a light or loose soil with clayey subsoils. If in the forest or on the plains and streams, a tree trunk is burntout or a fallen trunk is consumed by fire along the length of its trunk, blady grass usually appears almost exclusively. The soil loses its humus content with such a fire, but at the same time becomes very loose.

The remaining species of grasses hardly come into consideration in comparison with both the aforementioned. The others are usually much more restricted in their distribution belonging, some exclusively, to the damp slopes of stream banks, partly to the surroundings of the scrubs, to the banks of ponds on the mountains or so thinly distributed through the remaining mass of grass that they can hardly be taken into consideration as foodstuff for the animals, the more so as several have such a peculiar smell and taste that they are avoided by the cattle, horses or sheep.

3. The <u>large yellow oats</u> is relatively abundant. This grass grows in large streams here and there on loose soil, especially along the outskirts of the scrub and on flats accompanying the streams. It forms a large number of strong blades, with hairy members, often 7-8′ tall. The leaves are long, stiff and hard.

4. Ant grass (or testicle grass) is generally distributed and grows nearly everywhere, but it seems always separate and is avoided by the animals on account of its strong smell.

5. Foxtail grass grows rather abundantly on moist ground. It is annual and appears communally in restricted patches, which perhaps results from the distribution of the seeds. It is a coarse grass and the animals never chose it as long as they have other grasses in the vicinity.

6. Paspalum grows on the edges of flat lagoons, usually at the highest level of the water. It is a good grass and is readily eaten by the animals.

7. A *Poa* grows very abundantly on the outskirts of the scrubs, particularly the mountain scrubs (e.g. in Maconnel's scrub &c). It appears in separate bushes with a large number of fine 2-3′ tall blades. It is readily eaten. It is a winter and spring grass (perennial).

8. In the same localities there are several other grasses, but scarcely as abundant as the *Poa*. The squarrose bush millet is an annual grass ♀ January and February and sprouts 2-3 blades about 3′-4′ long. The secondary axis/rachis forms a right angle with the main rachis. The ears are single-flowered and stand one-sided on small stalks on the underside of the secondary rachis.

9. The returned double-ear has the outward appearance of the kangaroo grass, but the flower and ear are formed very differently. It has an aromatic, bitter, almost unpleasant taste and grows not only in the scrub but also everywhere separately over the mountains. ♀ February and March.

10. The small broad-leafed scrub millet grows also along the moist edges of the scrub and along the slopes of stream banks. This grass is even found in the scrub along the water courses where light can penetrate into the scrub. Combined with it appears another small grass,

11. which I might call bearded scrub millet, although it is not a *Panicum*. This grass grows particularly along the moist water courses in the scrubs.

12. A grass with radial panicles, whose stem is embellished like a plum stone, grows separately in the forest, particularly on dry soil and I found it on Prior's station in sandy places, where hardly any other grass would grow. However, that was probably another species. ♀ November-February.

13. A *Festuca* has a similar distribution, whose ears are crowded in tussocks and whose weak stalks usually lie down over the ground.

Two grasses, which have similarity in outward appearance close up and from afar, grow especially on good soil, on fertile plains between kangaroo grass. I call one the squarrose spotted millet (the flowerlets are single) (14) and the other the squarrose spotted *Poa*? (or *Festuca*) (15). The flowerlets are in very fine ears. Both grasses grow particularly in spring and are annual, but single specimens of all grasses are found almost the whole year through.

The woolly oats has a similar distribution, but it is to be noted that it thrives particularly in fertile good soil. I have also found the fringed wool grass (17) in this area as well, although rarely in similar localities with the previous.

The ponds that are permanently filled with water and whose banks consist of fertile soil moderated with sand are surrounded by reeds (18), which grows very abundantly on such a soil, also along some streams (like Reedy Creek, Mr Bigge's, Balfour's and Maconnel's).

In the river beds some grasses grow, which are usually much liked by the animals. The large river millet (19) forms strong stems with full flower panicles. The small river millet spreads over the soil and forms small panicles with few flowers (20). To the introduced grasses, which particularly

occur in the surroundings of stations free of the native grasses, I include the couch grass (21) and the star grass (22). {On the dried out pond beds a species of couch grass appears and two or three other species of grasses grow even in the water.}

To conclude this catalogue of the best known grasses, I will also add some Cyperaceae that categorise some localities. A *Lepidosperma* grows in tall bushes in the scrubs and along the high river banks. A double sheathed cyperacean grows abundantly in mountain scrubs and on the damp slopes of mountains. Several *Cyperus* species grow in the scrubs, in the scrubs along the river banks and in the lagoons. (23, 24). *Fimbristylis* grows over the whole forest floor. A *Carex* is abundant around the stations. {*Spirobis* is a very widely distributed grass.}

23 February

[The first part of this list to the word nge is also written on a piece of paper pasted on the inside back cover.]

*boando to sleep uingirr night (gnoa P[addy].)

gnai yunmayo boando me sleep

ngnin yudmai boando you sleep - gnai kabbi (bail me)

allin yunmayo boando me and you (we) sleep

gnai banah boando yunmayo bye and bye me sleep

gnai uurubo (boando) yunmade me sleep good while ago.

meban get up

gnai dulurago meibayo me peggynarang get up

krai (karai) spear*

gnurra gnurro A strip of skin of the wild dog (uotta) as head dress.

*kayirbin necklace of reeds

kuddar waddi*

mukkurnba woven belt around the stomach.

*barran wommureng

kunmarrim shield

uittiman timid, frightened (tsheren) dungmana kaiangi

Simon uittiman (S[imon] is frightened)

gnuam dilli

nge seems to be "and"*

gnai yunayo boando Billy

gnai yunna boando Jimmy

gnen yunna boando Billy

allin yannoao boando Bel

uakka bail (P[addy].)

*gninungai karai kabbi - ganungai!

belonging to you spear not - belonging to me } [three bracketed] It is my spear, not yours!

your spear not - mine

kannin ganunda

karai ganungai - spear belonging to me-bartame bail you marre!*

Yesterday the 22nd February we had extreme heat. Not even a slight breeze blew in the morning. At 11 o'clock the sea wind began, which blew very strongly in the afternoon. Towards evening clouds drifted from the east and the whole sky became overcast and rain developed. No thunderstorm, although distant thunder could be heard. At 10 o'clock a fine rain, of which, however, there is no trace this morning. Welcome calm in the morning. Sea wind at 11 o'clock, strong wind the whole afternoon, spasmodically!!

<u>Billy</u>

*Kanni spear uidnambill dilli

murr waddi mukkamba girtle

barran bomerang

gundillbill heliman*

When a Black gets up to leave, he usually says: now me yartu (I'm going now). The

boys, when they leave the station, say: now me yorta talo, but at the same time with the object of reminding us that we have to pay him for his day's work. Billy had a venereal ulcer under the foreskin, which I painted twice with arsenic soap. It is now healed. Now I also have begun to treat Barney, whose whole glans is covered with venereal ulcers. Because I have no other drugs, arsenic was used again.

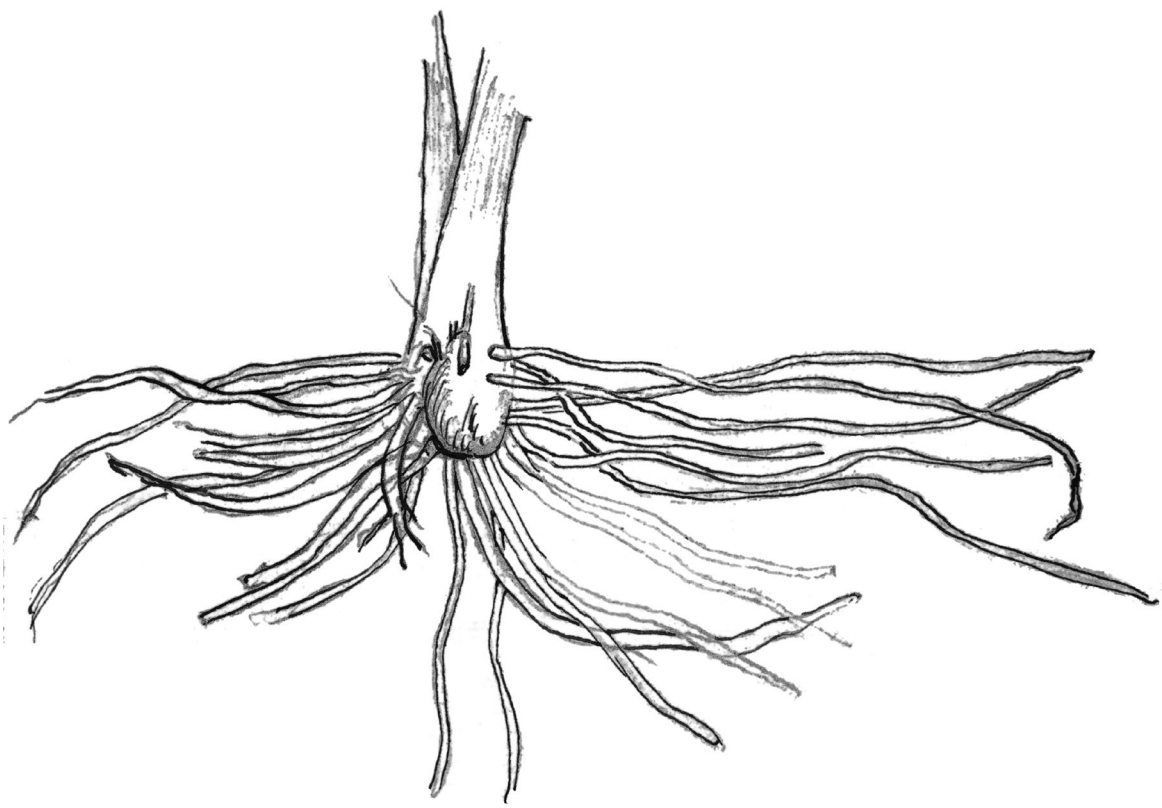
24 February

Gnunti the trunk of *Zamia australis*. The shape is bulbous covered with broad scales. A tap root sprouts from the lower end about ½′ deeper. This sometimes forks. A flat compressed root goes from the crown (from the root neck) on the trunk upwards and sends off several side roots. It surrounds the upper part of the trunk like a garland. The small roots and suckers almost all arise from the upper sides of this root and are directed upwards. Sometimes a second similar root climbing upward is on the opposite side. The direction is very remarkable.

Horizontal section. a. central cellular tissue (pith) with scattered pores. b. fibrous part, each fibre is surrounded by cellular tissue, towards the periphery are more pores from which emerges gum. c. the scale part, towards the outside the scales appear narrower, in the scales a large number of gum canals.

Gymnostachys anceps.

The long thick bundle-like roots all arise from a thick blunt root head. No tuber. As I was told previously the Blacks do not eat any part of the plant, although the berries do not taste unpleasant.



Kanangall in fruit. Black long-stemmed berries with one or two very hard small kernels, taste a little astringent, but pleasant. The Blacks do not eat them. The black outer skin contains a beautiful purple colour.

25 February

Yesterday morning isolated clouds in the sky, in the morning little wind, at 11 o'clock stronger southeast wind, which lasted until night, then almost calm, but separate rain clouds. A shower of rain during the night. The clear nights very cool (two blankets necessary). On the 25th in the morning strong east wind (east by north), cumulus and stratus clouds from east by north.

The brush turkeys are growing visibly. They are now so tame that we let them run about the house in the yard. They love worms and insects particularly and eagerly eat pieces of meat.

gnai yai yango bampi *now me go the bush.*

allin yango bampi

gnin yanna bampi

ullam yanna bampi

gnai uurubo yannmade bampi

allin uurubo yanmadi bampi

gnin yanknade bampi

ullain yannmadi bampi

When the Blacks change their residence or when they go to a determined camping place, they travel in separate parties of two and three together, often in long lines through the bush. They do this to look for honey and to flush kangaroos and kangaroo rats. When you see the Black armed with his spears and waddi travelling through the green forest on a sunny day, you easily understand how he prefers this free life of hunting to the arduous and continuous work of the Whites and you are surprised how he can be induced to join the Whites even so much as he does. Still to understand this, you have only to experience the rainy season, to see the soft ground, the wretched huts, the lack of clothing, rheumatism, colds and asthma, which make the situation of the Black extremely uncomfortable and the acquisition of food very uncertain. {*It is merry to walk through the green forest and hear the woodweale sing.*}

[Leichhardt indicated the Aboriginal informants, who provided him with Aboriginal words, by initials. These initials probably correspond as follows: Br Brickman, Ch Charley, Cr Croppi, J Jimmy, N Nicki and P Paddy.]

{*gnuyir black kuthir white kudding red gnarrin green*}

*ganarangam Ch. Narrambi the grey opossum, which the blackfellows eat.

Ualluall Ch. Banko J. Dziur P. flying Squirrel (Mukkumba is male of it)

Babbara Ch. Gnulaam J. a small flying Squirrel (Man can Man can!)

gna Ch. gnarr J. duck.

ganbi Ch. yullo J. eel

Ballah Ch. Balla J. Jew fish

Gnarimbam Ch. Mebir J. the turtle

Bamgurr Ch. Dugo J. Cod fish

Dudurro Ch. Doun Doun J. Shag (brother to duck, black

Diäl Ch. Yilai J Dikkah Yam

Dam Ch. Tam J. Yam on the mountains.

Ding Ch. Marri J. Kraumen (Gurrumen) oldman kangooroo

Boal Ch. { Boal J. (old female lives in the brush.
Corroborri J. Old man

Gummang Ch. Gummang J. lives in the brush like bai kang.rat It has black at the shoulder Paui (Pademelon) has white at the shoulder

Guivir Ch. Uollan [J.] Kangooroo which lives on the rocks

Guang Ch. Uangai J. Carpet snake

Yanni Ch. Bauuan J. a small animal Bandicut rat. It smaller than Dungull (Bandicoot)

Gumulbi Ch. Bai J. kangooroo rat

Gnandäl Ch. Nandaya J. a kind of fish. Bream or Mullet

Kambo Ch. Kambo J. Cobra in the wood of salt water

Dundurr Ch. Buyum J. the larve of a beetle in the brush in Swamp oak.

Dunbä Ch. Dunbann J. the larve of a beetle in the brush (rotten wood)

Gniddar Gniddar Ch. Nandarr J. a small snake, not poisonous (norang koolah)

Birriwill Ch. Birrwi J. fruit of a leguminous shrub.

Uauuall Ch. Nauua J. crow- old woman eats it and old man.

Banam Ch. Bannam J. Kangooroorat different from Bai lives in the brush, not in the forest.

Kimmam Ch. Kimmam J. Kangoorat, a small animal does not live in the brush but in the forest.

Gutta Ch. Gillah J. Honey
Gabbiä Ch. Kabbai J. another species of bee and Honey.

Domgo Ch. Mullo J. Blacksnake

Battia Ch. Baddoran J. It is white resembles the opossum living in the brush.

Guppe Ch. Gurrui J. (Krui Is a species of opossum, black colour lives in the brush, with a long tail.

Gummurr Ch. Kummur J. a grub which lives in the grasstree.

Yarredam Ch. Yarrandam J. another grub in the brush some say, they eat it, others they don't.

Dinnbir Ch. Dinnbirr J. Grasshoper - Blackfellows of Wide Bay eat it.

Uaiah Ch. Uauarngnurr J. Lives at Kungkuba and towards Wide Bay a kind of kangooroo (Brother belonging to Pademelon towards Bopol)

Wangunn Ch. Wangurin J. a species nearly allied to the preceding.

Dallops Ch. Tallum J. a kangooro } female
Mutti Ch. Muddi J. like Tallum } male

Danball Ch.

Dunpatä Ch. Dunbadoran J. lives in the water, a long nose long tail J. says like an opossum, probably a water rat.

Uannannarr Ch. Bangann lives on the mountain- the tail is long and ends in a bush, the old men eat it not the young ones.

Gullah Ch. Kullah J. native bear old men eat it, not the young ones the women eat it too.

Bulbann Ch. Banuann J. a kind of mouse, lives in the grass.- a kind of field rat, of which I got a specimen.

Uau u unn Ch. J. the brush turquey

Gimmundaräh Ch. J. lives in hollow trees, a species of mouse.

Gilli Ch. Moburr - Muggurr J. an other species of mouse or *Sorex*

Geiar Ch. Geom J. Kakkotoe

Cudseri Ch. J. P. King parrot

Gillgill rallido Ch. Rukkun Rukkun J. the blue Rosella.

Dirriya Ch. J. black cackatoe

Gnurrun J. Emu

Mammä Ch. Mammoa pigeon

Baba P. the blue pigeon Ungallam J.

Bunnball Ch. Ton J. an animal with a long nose similar to Dungull lives in the brush.

Dinnangbumball Ch. Binnandun J. a small animal like a mouse lives in the brush

Gnannall Ch. Buddarr J. a hawk.

Kakkagualidum Ch. Kanga J. another species of hawk.

Murrnguding Ch. J. a kind of bird lives near and in water at Kungkuba.

Dilli Ch. Muggurr another species of mouse

Moddä Ch. Dompi J. Grass tree

Dullwill Ch. Ginnarr near the saltwater like

honey. It seems a small shrub or plant the root of which is quite stout and which is mashed like sweet potatoes.

Dingidingirri Ch. Dingidingerr J. a small bird

Gubebi Ch. Uan J. sleeping lyzard

Binni Ch. Boppull J. *Chlamydophorus*

Binnangulum Ch. J. a small lyzard like uan

Wallambarbi Ch. Wallambarum [J.] a small kind of lyzard

Bin Ch. Birr J. Blue mountain parrot.

Banya Ch. Bodni J. Bunya Bunya.

Dunnam Ch. Uarram like an Iguana lives near water, where to it betakes itself.

Kayarr Ch. Kayar bottle tree

Barrah Ch. Yimmar J. Kangooroo

Drebin Ch. Debin J. Quail

Gundillbill Ch. Gunmarim [J.] 3 leaved leguminosen

Buji Paddi Uangei J Carpet snake.

Banyann net.

Gnunti Ch. Guanti J. pound the fruit and put it in water and roast it*

Wygoll

[Letter in German Aurousseau, 1968: 735-740.]

2 March

Uagan uagan (Pinky) The fruit with the reddish husk, which Billy Jones brought from Three Mile Brush.

The yellow *Acacia* occurs in flower again in the forest, which flowered in July last year when I came to Moreton Bay.

Jacky

*Nungo tomorrow talli today gnai kando eh me cobon hungry aranimai

Kuruonda three nambabo yesterday dullumbi corn

bullanga bulla 4 bannah bunnamgullaman

gnai nangan do me nullnull waddi nun to spit

matto burrangaman burran I hear the storm kulligua cough gnuyam to sweat*

6 March

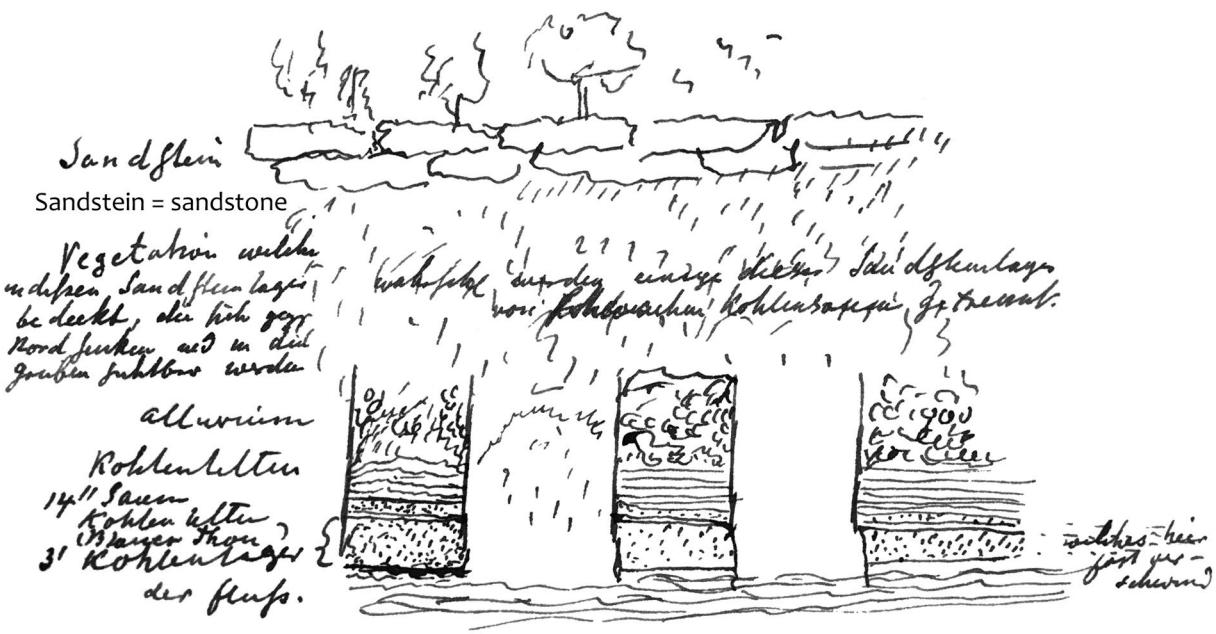
Limestone

The track from Brisbane leads through a sandy forest. Coopers Plains show a rich black whinstone soil, but near the station you see ferruginous sand, which the water washed into the ruts. Whinstone: a fine fabric of feldspar and hornblende (or augite crystals) of greyish colour (like at Bigge's) becomes visible just before Canoe Creek. This stream is a soil boundary; on both sides alluvium lies over whinstone on the east and over sandstone on the west. From there to Ungarn (where Dr Simpson lives) there is a sandy soil everywhere, here and there replaced with a clayey deposit. This mixture covers the hills of Ungarn and the slope along the bank of the river, which Dr Simpson cleared of brush trees and has transformed into a good garden. Maize, pine-apples, a new beautiful species, and many vegetables, and tobacco grow very well.

On the 5th of March I visited the coal mine with Mr Wiseman, which a man Gray has begun to work in the steep slopes of the river

bank about three miles from Ungarn. The coal lies under coarse sandstone. Several strata of coal seams and pipe clay (white clay) lie firstly over a seam 14″ thick and a little under this lies a coal bed of 3′ thickness. This seems, however, very changeable, as a short distance higher up on the river it disappears almost completely. These beds dip to the east and north and the lower bed just reaches to the level of the high water mark.

The dip of the seam is 5° towards north and east. There is probably an even better seam at depth. Under the coal the blue clays outcrop again, which are hard at first, but crumble to pieces on contact with the atmosphere.



Sandstein = sandstone

Vegetation welche indessen Sandsteinlager bedeckt, der sich gegen Nord sinken und in die Gruben sichtbar werden = Vegetation which, however, covers beds of sandstone, which sink towards the north and become visible in the mine

wahrschl. werden einige dieser Sandsteinlager von schwachen Kohlensaum getrennt = probably some of these sandstone beds are separated by thin coal seams

Alluvium = alluvium

Kohlenletten = carbonaceous clay

14" Saum Kohlenletten, Blauer Thon = 14" seam of carbonaceous clay, blue clay

3' Kohlenlager welches hier fast verschwind = 3' coal seam which almost disappears here

Der Fluß = the river

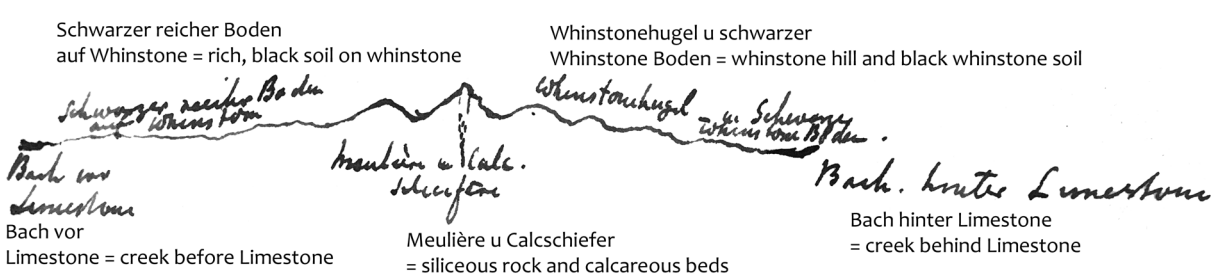
Coal mines of Ungarn.

In addition coal is found half a mile from Limestone under sandstone in the river bank and towards Cleveland Point south of Brisbane (Petrie).

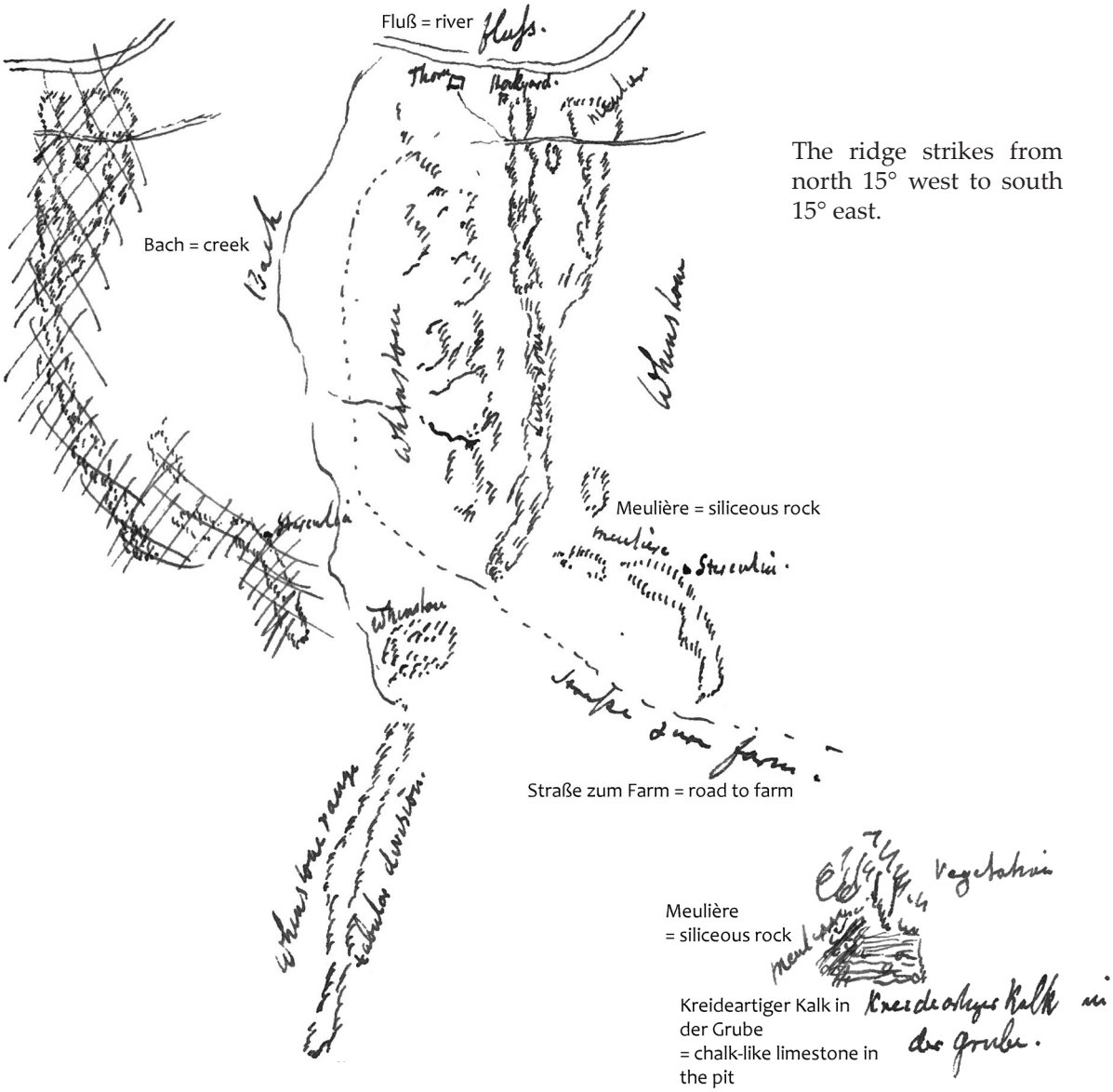
This morning I rode to Limestone, about 10 miles from Ungarn. The track leads over sandstone soil. Several plants, which are peculiar to this soil, were found: *Daviesia*, several *Acacia*, a *Pultenaea*, a Gum[?] with triangular leaves. About two miles from Limestone a rich black soil appears as in Coopers Plains.

A large number of calcareous concretions are found in this soil. They are at first like peas, then like beans and hazel nuts and finally they become fist size. Then a red silex appears in the track and finally just before Limestone this silex or siliceous rock becomes very abundant, becoming calcareous and changing in restricted lines into a flinty sandstone. The locality is very interesting.

The wangä or moreton bay ash, the silver-leaved ironbark and the large grass tree grow on the rich black soil containing calcareous concretions. A large number of grasses, among which the woolly grass and the large gold oatgrass, and a large number of legumes are abundant. The marl appears particularly on the northerly hills, on the right of the track and is more extensive, but also[?] on both sides and over the limestone crevasses. The best limestone appears in a somewhat curved line (the convexity towards the east) running from north 15° west to south 15° east. It is about a mile long, ends suddenly, but towards the east a shorter line outcrops, between both lie small intermediary hills. Subordinate whinstone hills lie everywhere towards the west. In the south on the other side of the road that leads to the Government farm, a similar narrow ridge crops out from north to south, which, however, is whinstone.

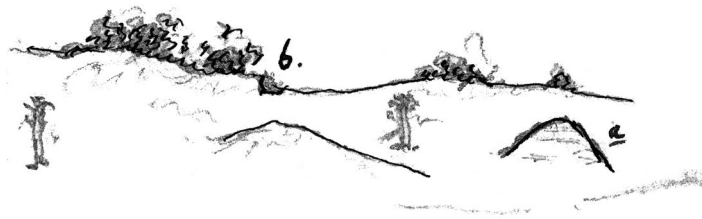


Ideal section from the easterly to the westerly stream.



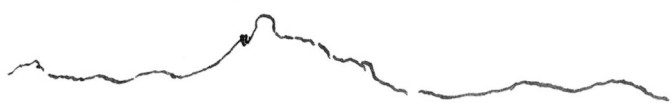
The ridge strikes from north 15° west to south 15° east.

This is the view of the hills with the peculiar division of the vegetation seen from the west.



This is a view of the east side, especially around the hill, a to show the steep and conical ones between both the main ranges protruding between the fork. b. is a pit which shows very graphically a chalk-like limestone and the marl overlying at an angle from the east.

The limestone concretions in the black soil, the iron-coloured silica, the marl, the flinty limestone, and its linearly restricted outcrop do not allow me a moment's doubt that this formation owes its existence to siliceous and calcareous spring waters.



Flinders Peak south - 20° east from the southern peak of the limestone mountain at Limestone.

A conical hill north 10° west from the northern peak of the limestone hill at Limestone.

D'Aguilars Range was clearly seen in the northeast. Subordinate ranges westerly.

The vegetation of the limestone ridge is peculiar. A thick scrub covers the hilltops. This scrub consists of the rough-leaved fig, of the fig with long-stalked leaves, of a species of durrawar (Nicki), of a species of bom (Nicki), and of an *Acacia* with drooping branches. These are interwoven by *Eustrephus* (with black and yellow fruits), by *Cassytha* (with edible fruits). The grass tree and the wanga gum grow on the slope. A *Sterculia* on the southern peak. Kulluroar on the ridge, also nimgo (whose fruits are extremely astringent), *Pimelea* in flower. The grasses are very diverse[?] and dense. I found a species of bean with goniophyllous leaves (leaf ternate), several climbing three-leaved vetches, three red-flowered shrubby legumes, one of which has simple leaves, the others with compound leaves. These legumes are extremely numerous.

With respect to the soil, Limestone is one of the best regions that I have seen in the whole district.

Jacky, a Black who belongs to Dr Simpson's station gave me the following names for the various trees:

*Mongra (Manborri) Billä (Billair) Urgorka (Uurka Uurka - Manarm)

Ngukkur (Bulberi) Gurran (Wangä) Gurrar (Spotted gum Dambann)

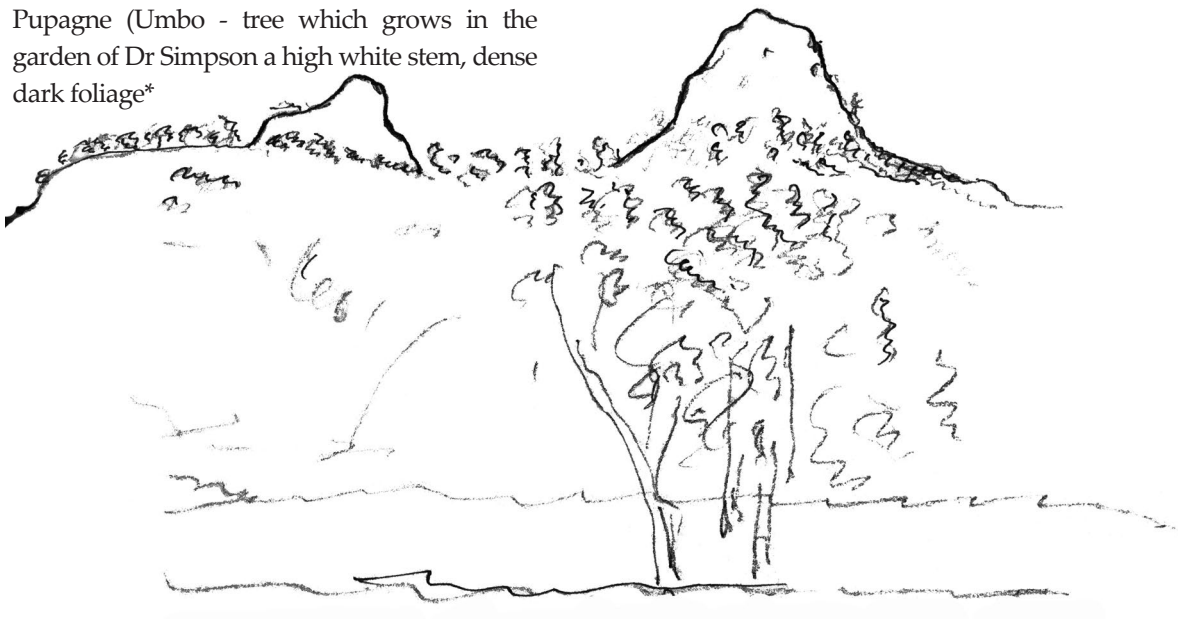
Jandurro (Tandur Durro) Bulluritju (Ngarrabill) Dambirri (Dambirr)

Tjennär Dogwood Gnarran (Boxtree) Mogaapull (Cedar, red)

Yagurru (a tree with pinnate leaves 8 stamens)

Gnundill purple ant, Uarrang white ant. Kaira white Kakatoe

Pupagne (Umbo - tree which grows in the garden of Dr Simpson a high white stem, dense dark foliage*

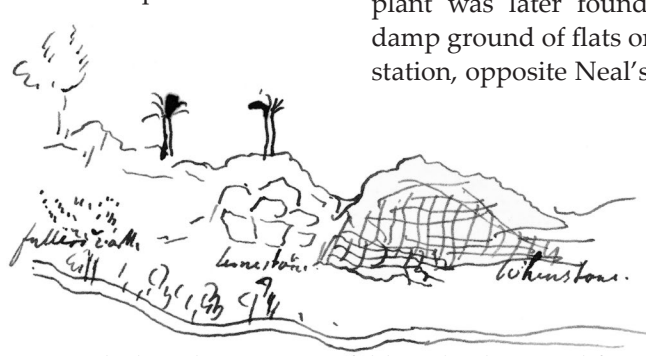


Bases grass sandstone top Domite in some places porcellanised?

11 March

I saw Mr J. Kent in Limestone. He spoke of a deposit of fuller's earth along the creek on the Government Farm and I accompanied him there to see this deposit. Small hills, which run out to the stream were formed from whinstone of whitish colour, often very decomposed. In this a deposit or a cleft filled with limestone? The lime just as in Limestone. Further to the south or southwest the deposit of fullers earth, which is covered by the black soil.

In the yard I found a legume 5′ tall, herbaceous, an annual plant, with hanging flower racemes, long linear pinnate leaves. The roots covered with fine tubercles. This plant was later found abundantly on the damp ground of flats on the way to Wilson's station, opposite Neal's station and between



(the yellowish grey or dark rock containing feldspathic base and fine crystals of augite)

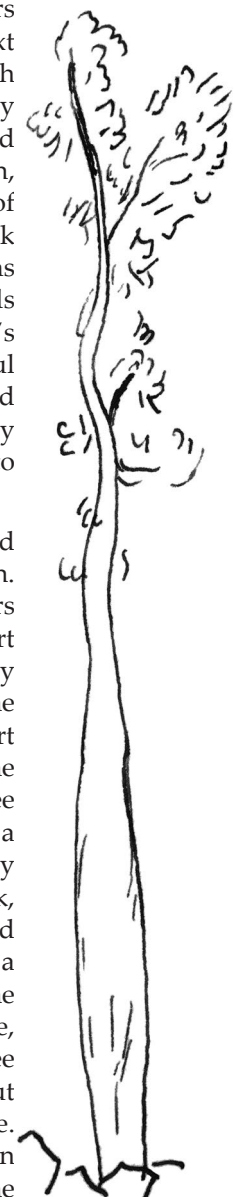
Cameron's and the scrub. The horses seem to eat it readily. I rode from Limestone to Wilson's station to see Flinders Peak. My path led me for a long time over a rich black soil covered with a great variety of grasses. The grass tree grew everywhere. Calcareous concretions became rarer towards the boundaries. From here I walked on sandy soil and the rock, where it was visible, appeared as a course grained-sandstone. About eight miles from Wilson's some bare rock horns became visible to the left and because I regarded them as Flinders Peak I left the road and headed towards them. Plains everywhere, often covered with so-called melon holes; on some places devil devil land, but with very separated furrows. The hills that arose now directly at the foot of these horns were of the same loose sandstone. I made my night camp on one of them. On the following morning I climbed up to the rock horns and found that they consisted of the domitic rock of Birroa. Feldspar crystals were very rare. The joints in the rock run south 10° east. An easterly dip of the clefts 65°, the rock seems as if finely stratified.

Sandst. = sandstone

I followed the range. Again sandstone hills, but as I came to the higher mountains, the Biroa rock appeared again, often with very distinct feldspar crystals. I found feldspar porphyry in the creek and even a basalt-looking rock in pebbles. Along this creek a scrub ascended to the flat conical highest mountain horns.

From there I went to Wilson's. As I rode on the southwest side of Wilson's, again over the black soil and the hills covered with grass trees in which calcareous concretions were very common and very large, Flinders Range transformed into its complete expanse before my eyes. I had one of the most beautiful views in all directions on a small cone in these hills. Mt Brisbane was seen in the north, D'Aguilars Range, the Coast Range, Cunninghams Gap and several very impressive mountain masses towards the south.

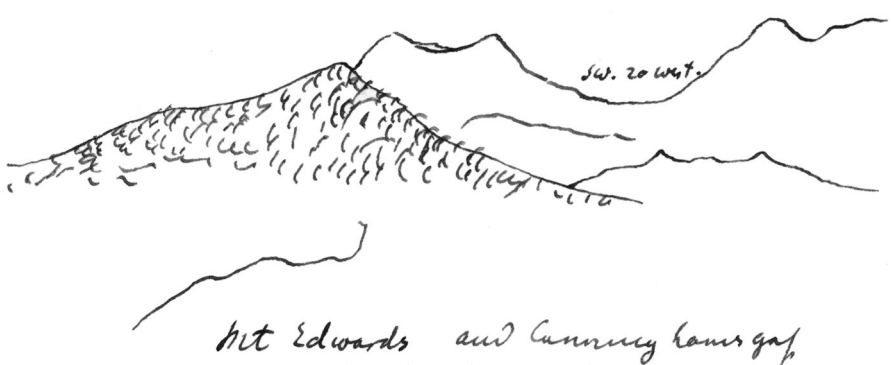
I made my night camp on a plain on a half burnt mangorri trunk. The evening star is shining exceptionally and is about 1½ hours behind the sun. Next morning I rode through the moderately hilly fertile forest country and came to a wide lagoon, on which swarms of wild ducks, some black swans and some herons lived. More towards the south-west is Neal's station on a beautiful lagoon, which I followed until the more westerly creek conducted me to Cameron's station.



Yesterday I climbed Cameron's mountain. A dense scrub covers the foot. The flatter part is almost exclusively rosewood brush, the higher stony part is pine bush. In the former the bottle tree grew abundantly, a remarkable, unsightly quaint tree. Thick bark, soft wood, the wood layers separated by a dense cell mass, the youngest layers edible, like cabbage. The tree was 45′ tall and about 6′ in circumference. The rapid decrease in diameter upwards is the most striking feature.

I found a small tree with small yellow flowers, five filaments surround the pistil closely, the heartwood is dark, the smell aromatic. Another tree with numerous jasmine flowers. A third tree with almost withered flowers, the fruit monosperm capsules. A fourth tree, yellow-flowered with actual concentric petal bases. Several *Asclepias*-like lianas, a leafless koba in fruit, the fruits sharply astringent, but not poisonous. The five-leaved palmate vine with very juicy fruit, but sharp. The cork vine a legume. The rosewood brush was so interlaced by a shrubby malvacean that you could hardly get through. Higher up large stone blocks were heaped over one another, which greatly hindered the ascent. Two steep rock walls were finally intersected by a gorge, through which you come to the top. This is a plain covered with ironbark, stringybark, bloodwood and dogwood. Under the rock wall tabilpillah? was growing.

West from Camerons Mt.



Mt Edwards and Cunninghams gap.

22 March

On Monday 11 March I went with Mr Jh. Cameron to the foot of Mt Edwards. Renaulds Creek winds between the mountains in a rocky bed and washes the east side of Mt Edwards. This mountain is steep towards the north and northeast and almost unclimbable. On the south-west and south sides it slopes gradually and is easily ascended. Many of the surrounding mountain masses show the same steepness towards northwest and north, thus Camerons Mountain (with north-westerly view), thus Mt Edwards{(towards the northern quarter)}, thus Mt ~~Gravel~~ Greville. The rock is domite as in Camerons mountains. The foot under the steep rock is covered with scrub. Vesicular basalt is found in the stream bed, and a porous rock with feldspar crystals (trachyte). The domites are the most abundant; the ground mass is sometimes earthy, sometimes crystalline. They are often vesicular, porous and rough, white, violet and greyish blue. Basaltic pebbles are very common. Olivine is often present. Coarse sandstone and psammite pebbles occur as well, a strange conglomerate of domite and trachyte fragments. {which I later found on the Coast Range outcropping.} The soil, which forms the high banks of the stream, is a rich red loam. *Araucaria cunninghami* (almost a different species), the silver oak (*Grevillea robusta*), the fig and a red cedar with very fine fibre *(fine grain)* were growing over the charming little place where we made our tea.

On the following day I rode to Colson's, visited the southern entrance to the rocky valley on Mt Edwards, and found the same rock and coal detritus.

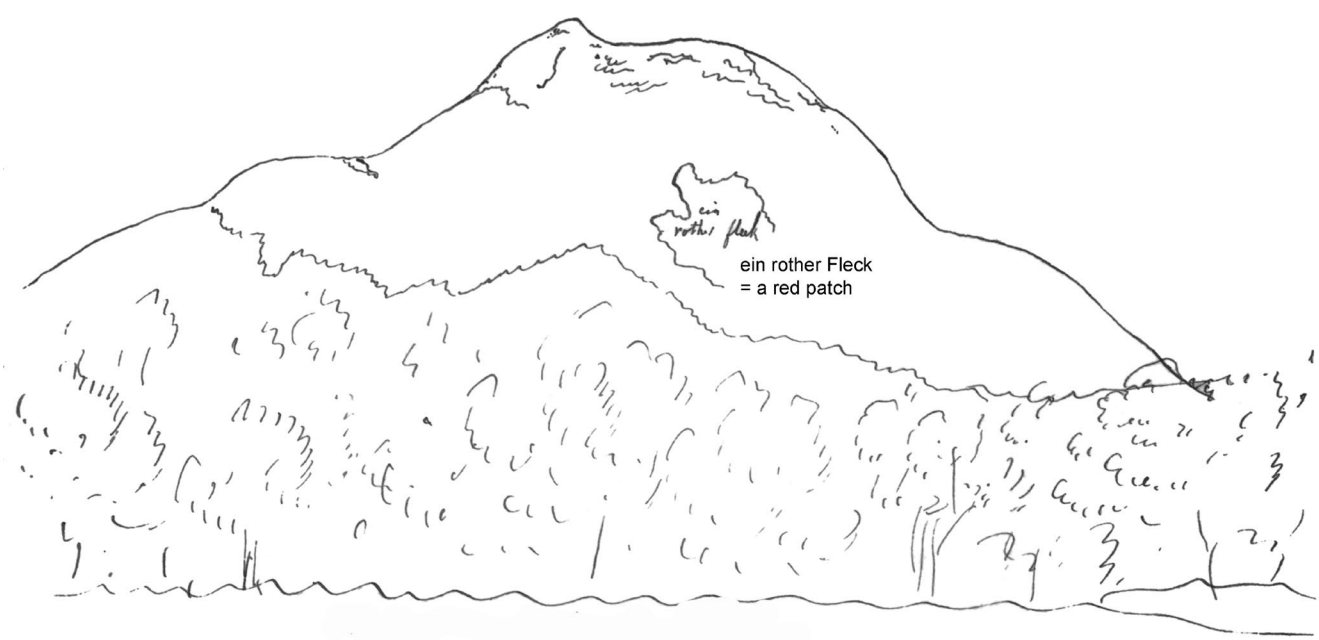
Rough ironstone is found on the hills, where Cameron's dwelling stands. Mr J. Cameron told me that they came upon a coal seam in digging the holes for posts. A grey slaty rock decomposing in the sun forms the more westerly hill and probably lies over coal. On the northern and western side towards MacLachlan's sandstone and conglomerate with silicified wood. Behind Kolson's house siliceous concretions were found, which Mr Gr. regarded as petrified worms or beetle larvae.

On the 13th I visited Mt Gravel, a high precipitous mountain cone, which again consists of domite. I crossed from there to the Gap. The high ranges of hills between Mt Gravel and Mt Edwards are again domite. Further on a rock of bluish colour with rare feldspar crystals appeared. The ridges, which come down from the Coast Range, are becoming higher and higher. I had to cross several stream beds. In these I found vesicular basaltic rocks with bluish coloured crystalline structure and large abundant feldspar crystals (feldspar porphyry with fine hornblende crystals). However, the hornblende is often entirely absent. Some of these rocks were very similar to those from Archer's northern mountains. I was astonished to find coal so close under the massive mountain chain, which consists of volcanic rocks, and is accompanied by a bluish shale. Higher up, e.g. at the waterfall, where it descends, a dark greyish ferruginous rock with rare feldspar crystals crops out. Even higher up a kind of conglomerate in blocks and pebbles, then vesicular rocks, finally just under the Gap and in the Gap rare domite. The white slopes of Mt Mitchell seem to indicate a similar rock there. On the western side of the gap a dense scrub with *Araucaria cunninghamii*, dugoi, durrungum &c, *Seaforthia* very abundant. The same dark ferruginous rock accompanies the geologist 1½-2 miles and further down Middle Creek, which flows to the Gap towards the west. As the valley begins to open, those peculiar mammilate swellings appear along and below the ranges of hills, of which I have made mention previously on my journey to Cassilis. These are formed from basalt with much

olivine. This rock seems to be common on the Downs and has particularly contributed to the formation of the soil. The latter is rich black with many calcareous concretions. These concretions as at Limestone and where ever they occur find a very good explanation in a spring containing lime near Loda (Liverpool Plains), mentioned to us by Mr Rankin. There a spring streams as thick as an arm and a foot high out of the ground, which deposits similar concretions everywhere. These springs must have been very abundant previously. The physiognomy of the mountains is shown in the following outlines.

Sometimes there are long drawn-out hills, sometimes cones, regularly formed, sometimes blunt, like those for example with Mt Dumaresq and Mt Strutt. On Cameron's station I had already found sandstones, which were brought from a south-westerly creek (Flagstone Creek). Sandstone occurred on Lesley's station and conglomerate with many white pieces of quartz. Quartz pebbles on the hills around Bracker's dwelling, and sandstone and psammite, which, however, I have not yet found outcropping. The soil is sandy.

Between Farquahson's and Cameron's Station



Mt Gravel from northeast. Rock domite.

The waterfall, a shimmering silver band, perhaps 300′ high. The rocky bed perhaps 85°, the grass tree[?] over it, *Crinum* bushes and *Dendrobium* here and there, a kind of rocky crater all around. A large volume of water during the rainy season must be of extraordinary effect. The view of the mountain ridges, which climb up to the Gap and the view from the Gap is perhaps one of the most magnificent that can please the human eye. An amphitheatre of dark rocks and mountains with subordinate grey ranges of hills. The bold forms of Mt Gravel, Mt Edward, Camerons mountain, and Mt Fraser and far in the distance the bolder form of Flinders Peak and the peaks of this chain. The massive mountain masses of Mt Lindley appear towards the south and south-east, the other side of Mt Gravel.

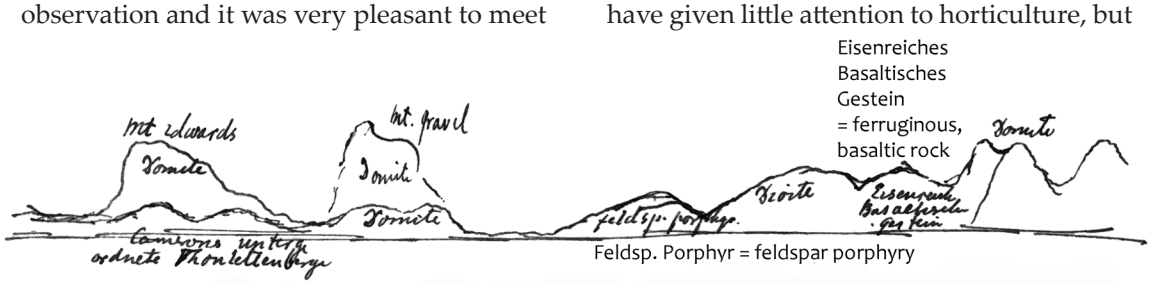
Mr Cameron had a Black shepherd from Hunter River (Black Creek). He had lived among the Whites for a long time and taken up their customs completely. He is very intelligent and clean and without doubt an excellent shepherd.

Madame Kolson had collected a large number of rock crystals, which, however, with few exceptions were of little significance. She had a beautiful tourmaline crystal with complete crystal faces on one side. She had found it at Byron Plains, which seems to be a very fine locality. Madame Colson is a well-educated women with great talent for observation and it was very pleasant to meet such a rarity in the bush. In the night of 13 to 14 March one of my mares ran away from me this side of the Gap and after I rode around after her for eight days and had not found her, I felt called upon to continue my journey without her.

On my riding on both sides of Camerons Creek I saw a large number of kangaroos, often four to six and more together. In Camerons Flat several bustards (Trappen) were seen.

The temperature and vegetation changes on this side of the Gap, which is easily explained by the height of the Downs above the sea (1450′). The nights are very cold already; even some light night frosts have set in. The prevailing tree is *Angophora* (between that of Moreton Bay and Hunter River) and gumtree and the bastard box, which is becoming more abundant as you draw closer to New England. The plains are covered with a large number of herbs of the most luxuriant undergrowth. The oaten grass, woolly grass and goldoats &c are growing together in small colonies. The large everlasting is very abundant, [...] covers the places where sheep have lain. A tall *Polygonum* and reeds proliferate like jungle on the deeply incised stream, whose deep water holes are united now by a small current.

The Brackers seem completely occupied with their animals (cattle, horses and sheep). They have given little attention to horticulture, but

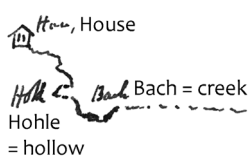


From Cameron's to the Gap (with inclusion of Mt Edwards).

Mr Bracker has a wheat harvest and maize, pumpkins and water melons are doing very well, so there is no doubt that with the necessary care all would do well and that the finest garden can be planted.

23 March

Bracker's house stands on a sandstone hill, which forms a vertical cliff against the southern stream. This cliff is hollowed out by the influence of the atmosphere, by the loose sandstone gradually crumbling and leaving the harder layers that are penetrated by iron ochre. In these hollows you now see complete trunks of fossil wood changed into ironstone, which, however, also break into short pieces as in joints, but also at the same time seem to peel off according to the concentric rings. The walls of the hollow are covered with a soda deposit or perhaps a mixture of carbonate of soda and rock salt. I have not tasted saltpetre. Many swallows are building their retort-like nests on the ceiling of the hollow and wasps suspend their paper nests here as well.



Mr Bracker showed me a register of the weights of his fleece. The best proportions were 87 fleeces to 300 lb — best wool, then 197 lambs to 300 lb, the heaviest fleece 6 lb. His flocks are not or seldom in hurdles through the night. His largest flock contains 2700 head, the smallest 1600. His best wethers weigh about 60 lb, but they are only young — 2½ years old. {Brackers have a pretty kind of white hen and blue-foot hen, which lay well.} He prefers hilly country with open woodland even to the free plains of the Darling Downs. His whole run seems to lie over coarse sandstone.

I thought my journeying and my stay in the bush would rid me of a passionate desire unnatural to me, which had taken hold of me so powerfully under particular circumstances, so that all my thoughts were interrupted by it, and unwillingly and yet not unwillingly flowing into it. And now when I entered on my journey over the Coast Range opposite a spectacle of nature, as is only rarely granted to a captivated poet in visions; when the sunny green of the forested foothills, the dark blue of the crowns of the rugged mountains, the purple grey haze around the grotesque mountain shapes in the distance, the lonely roaring of the waterfall; when all these powerful impressions crowd into my mind feeling all the more sensitive in this solitude, I believed in the urge to spread out into the magnificent natural world, and from the trembling as one senses the presence of a higher being, my mind would return, in keeping with the feelings of most heartfelt, purest pleasure, cleansed and purified to the old equilibrium. But no! no! no! It returned to the images of a sordid imagination, to the stirring urge for gratification. Man gains little from the confessions of others. He just sees that they are as weak as himself and this serves him with an excuse, when his powers in the striving against false desires gives way. It is better that the young man does not know that every one has his temptations, of which he does not become master or only under favourable circumstances. Even misfortune had little influence on the fantasy that was striving out of its fixed circles. I lost one of my mares and looked for her in vain for a week. However, as I stretched out before the nightly fire for slumber, as I turned my eyes from the starry sky, which reassuringly formed a dome over me with its magnificent constellations, the repressed images of the daylight crept over me like nocturnal pests. Now and then I feel as if I found rest again in the hospitable house of my fellow countryman, it is so still, so clean, so domestic, so chaste! But from time to time the old tormenting attacks come, and my weakness concerns me deeply.

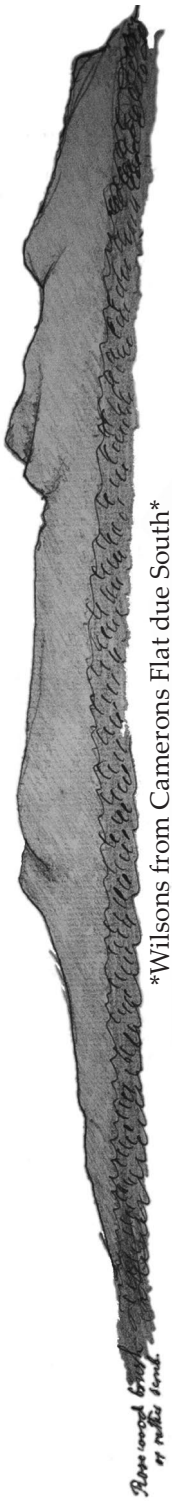
[Letter in English to Charles Nicholson. Aurousseau, 1968: 740-743]

On Sunday I visited the scrub behind Bracker's paddock accompanied by Mr Button. It is very dense, but shows no great diversity in bushes and trees. The green wattle is very abundant, the *Carissa*/whorled-jasmine, a leafless low shrub, a box tree-like shrub, a shrubby composite, *Dodonaea*, a broadly extending tree, a small tree with red berries, a bush with yellow ones. The soil sandy, a real scrub soil. Yesterday I rode up to the range of hills, which you see in the south south-west from Bracker's dwelling. The woodland very open, magnificently suited for sheep raising, as the open forest ground and the slight hill slopes allow a free view over a large herd. Mr Bracker grazed a flock of 4000 sheep here when he first came into the region. The lower part of these hills toward the paddock consists of sandstone and a conglomerate with many white angular pieces of quartz. The upper and eastern part consists of yellowish, bluish and reddish quartz rock. On the eastern and south-eastern sides there are small bushes between loose pieces of rock. Two handsome fig trees were already seen four miles away. This fig tree with small fruits, dark grey stiff leaves, with outlying branches and a trunk dividing close over the ground seems to like such an airy yet dry position, whilst it drives its roots under the loose stones, which retain the necessary moisture for them. Several other shrubs, *Notelaea*, the whorled jasmin, the broad-leaved jasmin, the narrow-leaved *Eustrephus*, *Salsola*?, a tree with plane tree bark were the most common. I have yet to mention that an almost shrubby *Polygonum* grew abundantly on a subordinate range of hills. The ridge of the highest hill is almost treeless, only here and there an *Acacia*, the subordinate hills with open forest, ironbark, appletree, here and there box and a gumtree different from the manborri of the other side. The soil thoroughly sandy, the kangaroo grass in widely separated tussocks.

Weather When I passed the Gap on the 20th, all the mountains were thick with hanging clouds and it was raining incessantly. The day before the clouds already lay on the mountains, but only a little rain fell 16 miles to the east. On the evening of the 20th on the west side of the Gap, the sky cleared, but at about 2 o'clock in the morning light showers fell from time to time. In this night I saw a shining fire ball sweep from north to south. On the 21st it was fine weather and this was only interrupted in the night of 25-26th. At times the wind blew very strongly and cold. On the 26th when I came to Bracker's shortly before sunset, one saw numerous beautiful mare's tails with their rounded ends towards the south, with the horn towards north. In the night we had a severe storm from the south. The weather was still very windy on both the following days and indeed from the same quarter. In the evening of the 25th severe sheet lightning towards the south and west, in the night thunderstorm and heavy rain. It can be expected that the next three months will bring fine dry weather.

Mr Bracker lambs a part of his ewes in autumn to divide the work. He finds little difference between autumn and spring lambs. All are in excellent condition. He uses his ewes until the sixth year, then he fattens them for slaughter. At lambing he keeps the youngest lambs separate from the rest until they are some days old, then he brings them to the remainder and drives them to the other side of the stream. If he has 800 together, he tends them as separate flocks.

Drs Simpson and Wiseman. Dr Simpson is about 45 years old, was married, and lost his wife in childbirth in Sydney. He was a surgeon in the navy, and lived as a physician in Russia and Rome, a real citizen of the world. He seems a man of deep thought, gives great attention to horticulture, in general



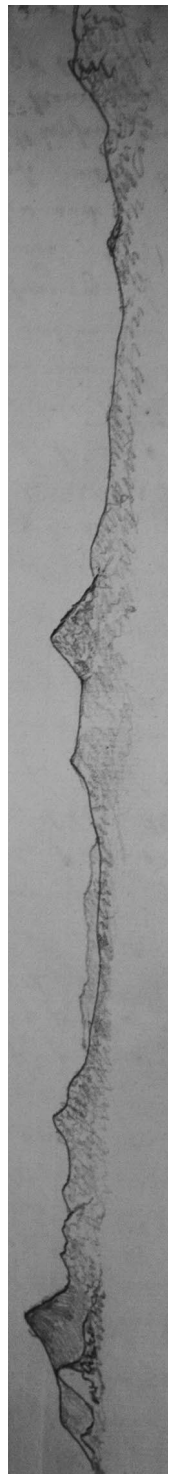
Wilsons from Camerons Flat due South

has very liberal views about the Colony, seems highly regarded by the better squatters, although they wish the Crown Commissioner to hell. As physician he is inclined to the Hahnemann method of treatment, but without following it to its extremes. He is a complete atheist, rejects the existence of a God, of a soul, of immortality, because it cannot be proved. Wiseman shares these views. He has studied medicine, took a large fortune to Italy, lived there at £6000 per year until his fortune was squandered and now lives in seclusion occupied with horticulture. Both seem friendly benevolent men, but none of the neighbouring settlers has known how to secure and keep their favourable inclination, although they all treat them very hospitably. Their education has led them on that path, whilst another occupation could have led them just as well to the acceptance of a God and to the acceptance of the soul and its immortality, had they themselves followed their inductions with heightened scepticism. At least they would have become deists. They are, however, as atheists closer to a revealed religion, than deists — probably this will only be conceded to me by those, who have had opportunity to watch over the development of ideas in the human soul.

A peculiar phenomenon was the old Clarke. When I rode from Wilson's to Cameron's on the 9th March, I came to Neale's station early in the morning, which is in a very romantic position on a beautiful mile long lagoon. As I rode before the hut, a very tall man with white hair and white, almost flowing, beard came out, who obligingly gave me a wordy description of the track when I asked him. The man made a strange impression and when I came to Cameron's I asked about his origin and occupation. I was told he was an old pensioner, who lived in that hut now almost like a hermit. When I came home yesterday, I found him here on his way to Sydney, accompanied by his Newfoundland bitch and Galloway pony. I was curious to get to know him more closely and yesterday evening we had a long conversation about various things and about religion. He is not well-educated, passionate and apodictic in his assertions. The bible is an abominable book that has brought only trouble over the world. God is an irrational assumption, the soul is nothing but the puff with which the servant girl stirs up the fire. Jesus is an impostor, the Holy Virgin a whore. It was natural that such a man drew especially on the coarsest and most obscure parts of the bible for his defence. It was a nonsense, a delusion and spurious wisdom to believe that the exalted creator of the world would sleep with a common woman. It was shocking to see that a book was being praised, which commended that Lot's daughters crept into their own father's bed to become pregnant, or David, a man after God's image, killed Uriah in order to commit adultery with his wife. The conversation was in fact too expressive because Madam Bracker was present and I succeeded only with difficulty to get him off

this seemingly favourite subject. It was in any case to be acknowledged that the man was not afraid to express his opinion freely. If everyone, who entertains similar thoughts to him and both the previous examples show that he is not alone, could do that just half as well, they would form a voice, which may hardly be stifled by the orthodox. At the same time the man was just as positive in his benevolence. He found it tormenting to shoot ducks, and complained bitterly of the death of his parrot. He cherished and cared for his bitch and shared his house with his horse. Although he lamented bitterly about the wickedness of mankind, I did bring him so far as to acknowledge that there were also good, excellent men, who were not all led by selfish pursuits — what Wiseman and Simpson would not acknowledge, by going *the whole hog* with Helvetius.

As I am just now writing about mankind, I also must not forget my fellow countryman Mr Bracker here. He came into the Colony 10 years ago and brought Saxon sheep and rams here. He was in service with several gentlemen being in charge



*View of Flinders Peak and Range West from Wilsons grasstree hill.

Towards South Mt Lindley*

of their sheep stations. His name spread throughout the whole Colony and he is not only known under the name of Fred the German but respected everywhere. Although he did not go to school for long and already as a boy devoted his whole attention to sheep breeding, his open disposition and his good heart made him teacher of the local sheep breeders and general favourite. At the same time he is extremely hospitable and kind, which makes his house a rendezvous of the travelling squatters. He has now married and his wife, a Scottish highlander, hardly takes second place to him in activity, industry and hospitable manner. Where I met with Germans in this Colony, I was pleased to see them generally respected, even when their position according to English notions hardly entitled them to such recognition. Mr Luther was a similar example.

On Cameron's station Mr Macdonald, who some few weeks ago married Cameron's sister, asked me for advice. He had the most severe headaches and incipient paralysis in the left arm and right foot. I used mustard plaster, because I had nothing else and advised him to go to Brisbane or Sydney to submit to a regular cure. The mustard plaster did good service, but it could not destroy the cause of a long illness of the nervous system. The headaches seem to stem from the contact with his young wife, a robust Scottish girl. The man has done a very silly thing to marry in such a situation and it will probably cost him a good part of his life.

I will mention here old Cameron, a 70 year old Highlander, who is deaf and is probably insane, although he shows this only in reference to his family, whom he seeks to injure in every way, believing they have deprived him of his property. He steals whatever he can steal and hides it in the forest. At the same time he speaks about religious and political matters very sensibly.

Catalogue of the trees, from which I took hand specimens.

[Leichhardt indicated the Aboriginal informants, who provided him with Aboriginal words, by initials. These initials probably correspond as follows: Br Brickman, Ch Charley, Cr Croppi, J Jimmy, N Nicki and P Paddy.]

1. *Tree with small greenish flowers. Br. leaves turn dark when dried *Elaeodendron*.
2. *Croton* with teeth of the calyx long Br. ~~Wombalang N~~.
3. Bignoniacea with grapes of large purple flowers Br. and Cr. Dannanbar. N[icki] Wangul
4. Tree with superior corolla 66331 smoothleaved Br. Kurai? *Cryptocarya* —
5. chagrined bark tubular 4 teethed flowers Br. and Cr. Kabburr N.
6. Silveroak Br. *Grevillea robusta* Gnarram Gnarram Paddy
7. Small tree with *Eucalyptus* cap. Cr. Durur N. *Eupomatia*.
8. Tree with aromatic berries, bark entering into the wood Cr. Gnandal? N. Uollwall Gumerigo.
9. Gnurrir Br. Blackfellow waddi- Ogrotto of the Brisbane blacks Noonta of the Pine River and another specimen of Wide Bay as very similar.
10. Little tree with bright green oval leaves Br. Danallam N. Tanqurir Paddy.
11. Mambanun leaf which did shoot from the stem, compound, fruit 3 capsular, wood very white, a sap oozing from the young bark. Kurruda N. Gunnangum Paddy
12. The acorntree with umbellate sessile acorns - different from another tree

with a similar but having stalked fruit. Kunanguloi Abel.

13. Tree with large white flowers, aromatic leaves, rather disagreeably mawkish smelling wood. Ungnunur N. Gungam gungam P. Wirgan

14. Garumgall Ch. Fruit 3 capsular round, loculicid and septicid, bright seed. Gnana N. Gänga P.

15. The peppertree, the fruit very sharp aromatic small.

16. Dukko, one of the finest woods of the Brush. The blackfellows make waddis and sometimes spears of it (at Priors Stat[ion])

17. Barir Ch. Berir P. Gnarrg N. a winged seed- a ternate leaf golden or silvery at the lower side, a transparent yellowish gum.

18. Native citron Darrom N. Dattare Paddy

19. Durrundur high Myrtle tree in the brush. I have not yet a piece of wood only bark. Dattore N.

20. Dullabi N. Worabill Billy.

21. Umbo in the creek brush.

22. Gnana Paddy a little tree at the banks of the creekbrush Mr Archers, opposite leaves oblong lanceolate. Juinn N.

23. Small tree ellipticolanceolate shining leaves ¾″ long 1″ broad, bark corky, rays very visible, reddish tolerably hard, below Mr Archers Range Dullum N.

24. Gongangull (Gumerigo), Ganing very aromatic bark small scaly grey, fruit an acorn and this acorn is petiolate (cp. 12)

25. Tangbalbill Ch. middle sized tree, darkish bark, soft wood, bark breaking in small square scales, flowers without calyx - 5 petals 5 St. filament far prolonged 5 leaves formed st. form a cup round the pistile. Fruit 5 capsular polysperm covered with thick tomentum. Bangannuabin N. Gellä P.

26. Bareh Pad. broad lanceolate leaf, stings painfully, wood extremely soft and spongy Kimbi N.

27. Bareh a broad heartshaped leaf stings equally painfully, the wood like the preceding.

28. Banniluollball a high tree with rough corky bark longit[udinal] fissures whitish pith very large in the 3″ branch. Compound leaf very large Uariola N.

    28a. Is more grainy in the wood and perhaps a different species.

29. Pinnatelobed Proteaceous tree Wainum N. grey fissured rugged bark, epidermis coming off, section red 1‴, fine lines of medullary rays

30. Wombai large tree with monopetalous white flowers 2 series of stamens

31. Terratopetal. Bark white corky longit. fissures, section reddish, wood reddish light. Durrumbamm

32. Tree with yellow smooth capsules and arillus, wood reddish, dotted, section of the bark red, external bark smooth, waving lines. Kuddar N.

33. Kayar or Ger (Bottle tree) easily distinguished by the broad shallow long fissures of the bark, by the soft wood.

34. The Brush *Acacia* or Brush *Mimosa*. White bark longit[udinaly] fissured, light wood. Heart of the wood dark rich yellow, many white spots, part of the old dark, brownish with a transparent gum.

35. Tarabar bark smooth white, below the epidermis green when young, red when dry, section fibre fibrous this is the bark of no. 36.

36. Leaf ellipticolanceolate, attenuate towards the base, bright green, opposite, stigmata interpetiolate prolongated into a hard 15-6″ long 1½″ broad leaves Girkan Girkan.

37. Leaves bijugal, leaflets 3-5″ long, 1″-1½ broad, lanceolate and oblongolanceolate smooth, sometimes the leaflets alternate, fruit hard woody tricapsular, inner side of the capsules with thick hair, female tree of Kurrai N. Budder Budder.

38. Durrawar. Wombalang? leaf lanceol., elipt[ico] lanceolate ovatolanceolate, 3 veins starting from the base petiole ½-¾″ blossoms terminal grapes- 3 capsular.

39. Leaves compound 1 jugal, leaflets broad lanceolate 3″ long 1¼″ broad, petiole ¼″ slightly swoln [sic], petiole of the leaf 1½-2″ blossoms in short terminal grapes, 3 stigmata, wood hard white dots bark red thin, ext[ernal] bark smooth with scattered lentilli, very fine longit. fissures. Daluawirang N.

40. Leaves alternate lanceolate and oblongo lanceolate blunt, dark green above pale below rather stiff - much like Banban but neither opposite nor with stipules.

41. Leaves alternate elliptical acuminate 1½″ long 1″ broad, fruit a red berry with persistent stile and calyx, bark of the branches white.

42. Viyabi a high tree with a black bark this is Womboy- a black species.

43. Boboyum Bumboyum

44. A climbing figtree with the smell of linseed oil, the lentilli thickly set, transversal, distinct layers, wood porous. Donnam N. Bombonga P.

45. Jindilli

46. *Hibiscus heterophyllus*

47. *Tripetelus*

48. Ulall, 2 stigmata

49. Bauin

49B. another species of Bauin, very smooth almost varnished bark.

50. Katkin tree gives a white milk and has the leaf of Bauin. It is the male tree of Ulall.

51. Yuyullo N. Munno Paddy high tree with a thin green foliage and with a white stem, at the bases of the trunk often with butresses. Bark whitish grey with longstreaked lentilli united in longitudinal lines, the epidermis comes easily off and leaves a green motled young bark, the wood is white and tough a transparent somewhat bitter gum oozes out of the bark, the leaves at the top of the branches alternate with deciduous stipula, petiole ½″ long leaves 3-4″ long, scarcely 1″ broad, slightly serrate, (few leaves of the brush are serrate) flowers in small conical spikes below the leaves, few devellopp, fruit a blue stone fruit, eats almost like the slow, 5 capsular, capsules monosperm, eaten by the black-fellows, fruits and flowerheads at the same time.

52. Gundauin — the little palm tree of the creekbrush.

53. Yidni the prickly monocotyledenen vine of the brushes, particularly river brush.

54. A small tree or vines at the waterholes of Archers near the brush, many stamens in the male blossom.

55. Gundilbill Ch. The leguminous tree (*Erythrina*?) of which the blackfellows of Paddys tribe make their shield, catkins grey, corky tubercles below the epidermis, mottled green, section

whitish, cellular with intervening fibres, fine intervening lines of medullary rays.

56. Murnam. (native plum) The fruit when ripe, eatable, the bark milks section of bark yellowish, fine fissured, bark corky fissured scaly section reddish, albumen white, wood with waving fibres.

56a. The yellow Murnam[?]

57. Kuddumballum bark square scaled and lamellar leaf ellipticolanceolate dentate very agreeable smell.

58. The catkin shrub a small tree or shrub with small leaves very frequent in all brushes particularly in those of the river.

59. Gundularinba bark dark deep fissured young bark red, thick. Kulluroar N. The wood is short, the leaves lanceolate and elliptico lanceolate white below, berries 2 capsular, monsperm.

60. Dobakkadel a very high tree with fine butresses white fibrous bark, white wood external bark smooth grey with scattered round flat lentilli, the leaves lanceolate blunt (1½″ long ½″ broad) dentate, blue stone fruit of the size of sloes[?] eatable, though not eaten by blackfellows the stone irregularly rough.

61. Dugoi N. Murramm Ch. Mäem Abel. Very high tree with slight butresses, bark and wood reddish, the external bark smooth scaling off like *Platanus*, and amongst the trees of the brush like Garumgall (Gnanna[?]) The leaves are 1″ long ¾″ broad ovate acuminate a clear network of veins with marginal vein, pleasant laurel like smell.

61a A tree with the bark of Dugoi but with light wood and not so darkly coloured.

62. Kunyuro. A high tree with slight butresses, the bark greyish smooth, scaling of in white thin soft flakes, the wood hard red, seems to split well, the leaves lanceolate 1½ inch - ½″) with three very visible nerves on the lower pale surface, the flower [blank].

63. Buttawa. Bark grey with scattered lentilli, epidermis corky, young bark thick cellular red milking, wood hard getting red, a kind of cross grain.

64. Durrumbam high tree with butresses bark smooth with fine scattered lentilli, section of the bark red lamillar, wood red, medullary rays evident, wood heavy. Is identical with N. 31.

65. Vauan Vauan. Bunya brush. Bairun. A high tree, in blossom the 27th Decbr. bark grey, fine hard curled scales, section of the bark whitish, cellular or rather granular, wood white, tolerably tough, white concentric lines and dots.

66. White vine, pith large, bark white and smooth leaves opposite elliptolanceolate 5-5½″ long 1½″ broad, interpetiolar stipulae♀ 25 Decbr.

67. Red vine, colour of the bark reddish all covered with white dots of lentilli. Dunrarin.

68. Dayir. Bark reddish round lentilli section red fleshy, with lines corresponding to the medullary rays and intervening cellular tissue.

69. Red Cedar Uutta very high and powerfull trees, often with butresses, external bark brown in large scales, section fibrous brownish, young wood white, old wood often deep red with very visible medullarly rays, which are however very thin, the fibres of the wood forming a dense beautiful network. This tree is found in creek and M[oun]tain brushes (Burun) - particularly in the former. In Burun it was associated with the Bunya tree.

70. Ferntree from Ferntree creek going to Burun. Nam N. Bunbunbill

71. Yikko, High tree, bark grey, longit[udinal] fissures between which slight transverse ones, which form not very rough shields, section thick yellowish white with red triangular designs corresponding to the longitudinal fissures, wood reddish. Dark green compound leaf, fruit yellow three capsular, singular smell of the bark and wood.

72. Tibbura.

73. Meulan or Marra.

74. *Araucaria cunninghami*, the moreton bay pine

74a. *Araucaria Bidwillii* H.

75. Banban a small tree with opposite lanceolate dark green rather stiff leaves interpetiolar stipulae, flower white monocotyl, with a fine scent like Jasmin bark smooth wood white fruit like that of the rose externally.

76a. Kulu.

76. The forest oak *Casuarina*.

77. Manderoljam The white gum. Young? bark entirely white Kangar Gargar M[orton] Bay.

78. Manborri the blue gum. Young bark white and greenish lead colour, the dry stripes flexible.

79. Dambirri the grey gum, the young bark orange colour.

80. Manarm a spotted gum, young bark orange and spotted.- The red gum of the squatter, cherry coloured gum Urgorka Mts.

81. Dambamm a red gum with brownish gum.

82. Buddul the flooded gum.

83. Gnarrabill. The Terpentine Bolorta Mts

84. Tandur Durro Maling. The narrowleaved ironbark.

85. Bullla. The silverleaved Ironbark.

86. Bunah. Bunair. The Bloodwood.

86a. Gum with mucronate cap of the parsons Glebe Newcastle

87. Gala.

88. Bulburri. The Appletree.

89. Mingagaborri. The lanceolate leaved appletree.

90. Tangpalang Tabilpillah. The wormbarked Terpentine bark smooth in the younger and higher parts of the tree, remarkable by a great number of fusiform bodies separated by thin laminae, wood very short not very useful, the blackf[ellows] of Brisbane make their spears of the young saplings.

91. Mingall the Box Gnarran Mts.

92. Wangä the Moretonbay ash. Gnarran Mts.

93. Dibilpalam the Stringy bark Turrah Turrah Mts.

93a. New England olive gum.

93b. Dibilpilah of Wide Bay.

94. Dil. Another kind of Stringy Bark.

95. Gnanarr a 3rd kind of Stringy Bark.

96. Binaroan the Blackbutt.

97. Boa a 4th kind of Stringy Bark Mundile Mts.

98. Gnuddur Ch. Nambur N. The Teatree, brackish transparent sap.

99. Kuppebill Ch. Yadabin N. The narrowleaved Teatree

100. Billah Ch. Billair N. The Swampoak.

101. Ginnang gerangbill Ch. Barrambin N. The Weeping Oak.

102. Binnamdal Ch. Binnamda N. The Swamp gum.

102a. Phylloidal leaf gum of New Engl[an]d, white bark.

103. The Native Cherry.

104. *Banksia*.

105. *Persoonia* ?

106. *Xylomelum* ?

107. *Lomatia* ?

108. *Hakea* (or *Grevillea*)

108a H. from the Gwydir

109. The Dogwood (leguminosen)

110. Mai the Moreton Bay Chesnut *Castanospermum australe*.

111. Kaddir. Compound leaf 3 juga par and impar, petiole of leaf and leaflets slightly impar[?] at the insertion, leaflets ellipticolanceolate, young branches white rather corky, pithy, bark smooth with many navel like small lent[illi] epidermis corky, section fibrous, wood white fibrous with white dots.

112. A vine with palmate pinnate (ternate or with 5 leaflets) leaves, the ext[ernal] bark corky soft fissured, medullary rays very large fleshy separating the thin layers of the woody fibres which are very porous.

113. A small myrtle tree with very white smooth scaly bark, green leaves, indication of lobes.

114. Momoyem yellow hard wood bark smooth covered with strong conical prickles.

115. Banni Banni malvaceous tree, bark very thick, externally bright grey irregularly sparingly fissured section reddish cellular, with meshwork of fibres, wood white, soft, thin medullary and fibrous rays. The Blacks of Brisbane make their helimans of it.

116a. Gilla a different tree from the following.

116. Gitta. Brush tree bark grey, fine short transversal fissures, finer longitudinal ones, section white cellular, wood white, finely netted by concentric and centric lines.

117. Billan. Bark dark grey with corky excrescences (lentilli) in longit[udinal] lines. Section reddish, wood a reddish tinge, facetter very visible, though fine.

118. Balbaram N. Guaner Guanner bark deep fissured, scaly or lamellar, thick wood reddish, darker towards the center, short fiber.

119. Billiya Billiya. It had ternate leaves, bark smooth covered with thick corky lentilli, section gets dirty reddish and the wood gets equally darker. The Black women make their spades of it.

120. Brother to Billiya, bark smooth grey with that corky lentilli, section cellular and white, wood white, gets not darker sometimes after being cut. [entry crossed out] This no. 1.

121. Gurkunn, a very small tree, bark white lamellar wood white with many distinct medullary rays.

122. Ulloa bark very smooth isabell[?] and greenish long stretched patches, thin, wood darkish, very hard, so that they have called it ironwood Ningall M[oreton] B[ay] black.

123. Munnum bark grey smooth soft with scattered lentilli, epidermis comes off and leaves a reddish cuticle, wood white.

124. Scaly pine. The bark fissured lamellar section like a gilly or soft horn, wood

white with fine distant medullary rays, the young leaves lanceolate broad 1½″ long 4″ decurrent half amplexilant.

125. The white Myrtle. Ext. bark white smooth lamellar long slight fissures, wood to the heart yellowish.

126. *Clerodendrum* bark soft corky, fissured longitudinally and transversely, wood yellowish soft short useless. 1½″ broad 4″ long blunt.

127. ~~Tamma Tamma Simon A small tree with leaves alternate oblong attenuate at the base 4½″ long 1¾″ broad new leaf) 2½″ long ¾″ broad.~~ A young Kunangull XII

128. Brushwattle Tamma Tamma Simon, with an amber coloured gum, which tastes sweetish, bark grey longitud. anastomising fissures, section whitish yellow wood white, heart brown coloured, at present with senna like pods without seeds, 9″ diameter 40′ high , phyllod. multinerv.

129. Nananga. Small brush Myrtle, bark with deep longit[udinal] and transversal fissures, which form rectangular scales, the section thick fibrous, the wood seems hard, small myrtle leaves with large single white flowers.

130. if not identical, very similar with 161 Gungam Gungam Simon. Durrungan N[icki], bark grey smooth but with irregular excrescences in consequence of insects and the oozing out of a red gum, which is abundantly contained in the cellular bark, the wood is reddish, fibrous and after some time equally spotted here and there by drops of red gum.

131. The Creek Wattle ext[ernal] bark grey with deep long[itudinal] fissures, the scales thus formed with transversal small lentilli fissures. Section of the bark thick fibrous red, not whitish yellow as in Tamma Tamma. A transparent sap oozes out of the bark. This tree is in blossom at the end of December and at the commencement of January, whereas No. 127 has at present empty pods only, without any indication of blossoms.

132. ?A tree of about 35′ high ½′ in diameter with a white bark, the epidermis of which comes of [sic] in fine corky lamellae, the section is reddish fibrous, the wood rather light, light reddish tint, with white dots or pores (identick [sic] with 125)

133. Bark smooth with scattered lentilli, fresh section yellow, album. fibrous, wood white. Bright green leaves, at present monspermous little apples of a ¼″ long with persistent calyx (4 sepals.

134. ? A vine with smooth white bark with irregular lentilli, thick cellular yellowish bark, wood with many fine pores, no medullary rays.

135. Tirrom Paddy. Jimmy. A kind of vine or rather a flexible bending stem, about 2″ in diameter long scaly reddish grey, milking, heartwood fine yellow, young shoots with large spines, the spines reflected. This shrub is much more shrub at Newcastle near the salt water of the mouth of the Hunter. The flexible branches would form excellent impenetrable hedges.

136. Leaf elliptico lanceolate 3′ long 1½ broad upper surface green, lower glaucous with prominent secundary veins, flowerheads in clusters on the branches, wood yellowish

?This tree nearly allied to 4.

137. Murzina Bark light grey smooth, section getting brownish, wood soft in layers, leaf oblong, a little oval, suddenly acuminate 6″ long 3″ broad petiole 1¾″ scars of the deciduous stipula visible.

138. Gundulpundra of Capt. Griffins Pine Riverbrush Billan 117 leaves opposite simple elliptical, acute, at the basis narrowing 4¼″ long 11/3″ broad, petiole ½″, lower side pale green, bark smooth, grey, section red in layers wood light reddish tint.

139. Ballanballenbill a dioecious small tree or shrub at Tilbara Creek between Archers and Gregor.

140. A 2nd species of Bomboyum near the creek between Archers and Gregor short soft wood, small cylindrical bodies in the reddish bark.

141. Bambra a proteaceous tree in Mr Griffins Pine River brush, the leaf resembles a little Dullabi.

142. Ona Paddy a considerable tree with a thick cellular bark, with aromatic smell near the creek brush of Mr Archer. A watery sap is immediately after the cutting visible. The leaves are lanceolate, are aromatic. The fruit berries in false umbels and axillary racemes (3 nerves from the basis of the leaf. There are 3-4 trees nearly allied to each other and no. 4 seems one of them.

143. Kel at Capt. Griffins Pine River brush with small yellow blossoms, one of the highest trees of the brush, compound leaves, bark thick ext[ernal] aspect grey smooth finely fissured, section yellow cellular with intermixed fibres.*

[Inside back cover]

*On the Commercial Bank to Mr Schmidt the 7th Decbr 43 1£

On Mr Lynd to Wagner for stores 19 shillings

On the Commercial Bank for Mr MacKenzie & Co.*

[paper stuck on, numbered p. 53] Seventeen pound and a half fat in some sheep 50000-60000 £ export in wool and tallow.

[paper numbered 11 stuck on inside cover. This list is the same as that on p. 404 of the ms.]

boando sleep mingirr night (gnoa P[addy])

gnayun mayo boando me sleep

ngin yudmai boando you sleep gnai Kalbi

allin yunmaio boando me and you sleep

gnai banah boando yunmayo bye and bye me sleep

gnai uurnbo (boando) you made ?

meban get up

gnai dulurago mei bayo

me peggy narrang get up

Krai spear (kapai) Kayirbin necklace of reeds.

Kuddar Waddi

barran wommorang gnurra gnurro Headdress from the native dog (uotta)

Kunmarrim Shield Mukkumba Woven belt around the abdomen.

gnuam dilli

nge seems to be <u>and</u>

[reverse of page list on pp. 404 of the volume]

uittiman tscherin

gni nungai karai kabbi ganungai

belonging to you spear <u>not</u> belonging to me

karai ganungai bartama

spear belonging to me bail you marra

[Calendar Dec 25 to July 2]

End of Diary 4

❑ ENDNOTES

1. Reeve, Clara. *The old English Baron: A Gothic Story,* published in 1778.
2. Robertson, W. *History of America*, first published in 1777; *History of Scotland*, first published in 1759; *Zeluco*, a novel by John Moore, first published in 1789; *Taddeus of Warsaw*, a novel by Jane Porter, first published in 1803
3. Reynolds, George M.W. *Pickwick Abroad*; *or*, *The Tour in France*, first published in book form 1839, was a plagiarism of Charles Dickens *Pickwick Papers*, published in book form in 1837, which Leichhardt probably meant by *Pickwick at Home*.