An Anthropological Account of the Aborigines of Western Australia
Together with The Climate, the Diseases, and the Productions of the Country
By A. George Robertson M.B.
1893
Preface

In August 1879 I had special opportunities of investigating certain peculiar habits and rites of the Aborigines of Western Australia. At the same time I made certain measurements that enabled me to contrast their physical development with that of Europeans. The result of my investigations will be found in the following thesis, which might be termed an Antropological Account of the Aborigines of Western Australia.

Believing that Western Australia has a great future before it, I have also in this thesis given my opinion on its climate and climate. My opinion is based upon five years' experience, during which time I held the office of Surgeon to the Convict Prison, the Residence House, the Fort William, Tinnen Company, the Cooliehows, and the Redbeaters, besides being engaged in private practice. I had therefore good opportunities,
of cotton, noting its climate and climate. I have further added some remarks upon the physical characteristics and the natural production of the country.

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Rough map showing characteristic native divisions Western Australia.

- N.W. District
- Tropic of Capricorn
- Desert District
- Albany
- King George Sound
- Pinjarra River
- Bunbury
- Norseman
- Geraldton
- Port Hinchinbrook
- Murchison River
- W.A. Cape
- C. Indenture
- Indian Ocean
- Bass Strait
- L. Carpentaria
- L. Cavenagh
- Eulalia
- Echuca

Geographical locations and divisions marked on the map.
The division of Australia known as Western Australia comprises all that part of the island continent situated to the westward of 129° East Longitude, and extending between the parallels of 13° 34' to 35° 13' South Latitude. The length from north to south is computed at 1200 miles, and the breadth at 800 miles, and the area about 1000,000 square miles. Until recently it was known as the 'Swan River Settlement,' a name given to it by the Dutch Navigator William Fleming, who discovered it in the
Year 1696, and found in the neighborhood large quantities of whale oil, some of which he took to Europe with him.

A century later, Vancouver Island, and named King George's Sound, and about the same time a French expedition in the "Geographic" and "Naturaliste" examined the coast in the neighborhood of junior River, and the French names given to many parts of the coast. Hill Mantain many reminiscences of their visit.

In 1826, the Governor of New South Wales sent a detachment of the 39th Regiment under Major Lockyer to King George Sound, but it was not until 1829 that the British flag was hoisted at the entrance of the junior River by Captain Hamilton of H. M. S. Challenger, and formal possession taken on behalf of the British Crown.

The junior River thus became the site of the first settlement, and it was upon its banks where the first
Governor, Governor Hacking, and his party of adventurous pioneers first settled, and it has still continued to be the centre of the population and industry of the Colony.

From the first the Colony struggled on against numerous difficulties and trials, though without any sudden fires and falls to common in the other settlements in Australia, till the year 1849. In that year the inhabitants came to the conclusion that unless they received assistance from the Home Government, the Colony must be abandoned. Accordingly, the Home Government were petitioned to make it a penal settlement. To this petition a favourable answer was returned, and in June 1850 the first batch of convicts were landed. The Colony prospered much by their introduction, and by the introduction of the soldiers and prisoners who were sent back to Tasmania.
Transportation of Convicts ceased in 1868
and to a few years from date [1843]
very few of the lower class will exist.
It is to the labour of the Convicts that
the Colony owes its excellent roads
and public works, and since their
introduction the Colony has continued
steadily to improve.

Physical Geography

The chief physical peculiarities of the
settled parts of the Colony are produced
by the Darling Range of Mountains, which
commencing on the South Coast about
20 miles eastward of Cape Leuwin near
Hindes Bay, run nearly directly north
for 500 miles parallel to and about 20
miles from the Western Coast until
it approaches the Sea at Irwin Bay.
The height of this Range of Mountains
varies from 1000 to 1600 feet.
The Country between these hills and
the coast is composed of sand ridges
averaging about 30 feet to 50 feet in height.
Running in this for the most part parallel with the coast. The spaces between the ridges are usually occupied by lakes or muddy marshes. Some of the lakes are of considerable size. Occasionally two are to be met with together, separated only by a narrow tongue, the containing salt water and the other fresh. These lakes are in general shallow with some sandy bottom, and their borders fringed with rushes which are the haunt of numerous wild fowl. The space is traversed by a number of rivers running east to west. The majority of them are small and run only in the summer, during summer they become only chains of pools.

The geological character of this tract consists of sand beds, clay, gravel, conglomerate and lime stone grit. The whole of the country, including the range of hills is covered with trees, and in many parts is heavily timbered.
The county eastward of the Darling Range, or the hills as it is termed, contains large quantities of arable land and also numerous and plains fit only for grazing purposes. Going to the west of high farming the yield of wheat is small in this district, rarely exceeding 15 bushels per acre, whilst to the north where the land is richer and can be worked out the yield per acre is often double.

The Swan River takes its rise about 80 miles from the coast, flows north for 100 miles, and after joining the long and turns west. It is a moderate stream confined between high banks until about 15 miles from the sea, where after receiving the Helena and Coorong down the Canning, it expands into a succession of large shallow lakes, which continues until it again narrows itself before being discharged into the sea at Fremantle. It is navigable for...
The distance of 30 miles, but above Perth the traffic can only be carried on in flat-bottomed boats. In the lower part of its course the banks are for the most part flat and a considerable deposit of alluvial soil is left after the winter rains. In many parts of its course the scenery is very beautiful, especially the foliage on its banks is exceptionally to the only town of any size in the colony situated on the banks of the Swan. They are Perth and Fremantle. The City of Perth is the capital of the colony and is the seat of Government. It is prettily situated on the right bank of the river on the north of one of the lakes called Moilville Lake. The approach to it either by land or water is regularly pleasing. It is about 5 or 6 miles from the sea via a direct line and about 15 miles from the Darling Range. It occupies one of the land ridges before mentioned as forming the Chief
feature of the Country between the hills and
the sea - The Principal street is on an
elevation of about 200 ft above the level
of the Plains - The town contains 400
inhabitants, and is built in three
parallel streets or roads about two
miles long running from East to West
and about one quarter apart, with
threads connecting roads running at right
angles to the streets - Behind the town,
between it and the next sand ridge was
formerly a chain of lakes. These have
now been drained and their sites form
excellent garden grounds. - The plan
of the town is very Temple - It is
formed by dividing the intervals between
the parallel streets into paddocks of
about two acres each, with small a
house at each end of the paddock, which
is again divided in the Centre with
very few exceptions each house is
attached and surrounded by its own grounds.
The buildings one of bricks, the majority
lying the Story high and wide

Vineyards. The garden round the houses
are all well stocked with fruit trees.

Vines - Grapes - Apples - And Many Exotic
fruits growing in wild luxuriance

The whole space cleared

of land occupied by the town is about

Two miles in diameter, and is bounded

by a bend of the town to the East-

End Town, and by back to the North

End Town. There is little pasture or

village land round the park, excepting some

small farms on the alluvial soil on

the Banks of the River. The situation and

plan of the town are admirably adapted

for banking purposes, but up to 1880 when

I left the colony, they were not very

considered.

The hotel accommodation is very

fair and yearly improving. There is an

excellent club to which strangers readily

gain access, and there are many beautiful

walks and rides in the vicinity.

Tunstall is situated at the mouth of the

River.
Twan on its left bank - it is 12 miles distant from Perth - its harbour is at the entrance of the river, and is formed by Dochness, Garden and Canong Island which lie 12 miles west of the shore. To the north west, whence all the heavy gales blow it is only protected to a large sandbank. Vessels lie about ½ mile from the shore, take the change their cargoes of fishing nets.

The town is triangular in shape, the apex being the extreme point of the eastern bank of the river. Called Arthurs Point or Head, on which is placed a lighthouse, Powder Magazine, Court House & Local Jail. This Hill and the other one on the opposite side, called Round Head, form the entrance to the River, but between them is a rocky bar which can only be crossed in fine weather. The town stands upon a lime stone formation, and consists of one principal street with several branches running at right angles to it
The houses are built of brick stone, and generally are two stories high. Those in the main street line mostly block off true the pavement, making it an agreeable promenade in all weather. It contains about 3000 inhabitants. The chief object to remark is the Darlington place from the white roads and houses. There are several good hotels and lodging houses. It is much resorted to in summer for its bathing, and on account of the cool sea breezes which generally blows in the afternoon. The convict establishment also looks like town. It is a large white building and it and the military barracks, resemble English, and the different churches are the chief building of note. There is excellent fishing to be got at all seasons in the river and the bay. The beach is covered with many fine and beautiful shells, and these are endless walking and rides to be enjoyed round the town.
There are three other towns of importance in account of their climate - viz. Bunbury, Busselton, and Albany. They are all situated on the South Coast. Bunbury is beautiful, situated in a sheltered corner of Geographe Bay. It is the only market town of The D' Entrecasteaux and Lake Blackwood districts. Lake Blackwood is famous for its enormous Karri trees, so be mentioned by age, and for the healthy condition of its inhabitants. Its climate being absolutely warmer than the others.

**Climate**

The climate of Western Australia is generally regarded as very healthy. The settlers are constantly congratulating themselves that they possess the finest and healthiest climate in the world and certainly the vital statistics of the Colony and the copper and gold district of Kalgoorlie are never heard of. But I am not so eager, settlers tend to support this opinion - the climate resembles that of southern Europe. The temperature, clearness of the sky, etc.
The mean annual temperature is 67° F. That of the 6 hot summer months being 72° F.,
and of the 6 cool winter months being 59° F.
As a rule, the greatest heat is in February, and the coolest in August.

The average temperature and atmospheric pressure, taken from the Observations made
by the late W. H. Knight of Perth, are, during the years 1867-68-69, as follows:

<table>
<thead>
<tr>
<th>Barometer</th>
<th>May 30. 47</th>
<th>May 30. 13 June 1869</th>
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<tbody>
<tr>
<td></td>
<td>May 30. 13 January 1869</td>
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</tr>
<tr>
<td>Thermometer</td>
<td>69°</td>
<td>December 1867</td>
</tr>
<tr>
<td></td>
<td>69°</td>
<td>August 1864</td>
</tr>
<tr>
<td>Daily Mean</td>
<td>May 14. 15</td>
<td>Feb 3. 1867</td>
</tr>
<tr>
<td></td>
<td>Min 57. 1</td>
<td>July 1867</td>
</tr>
</tbody>
</table>

The greatest rainfall was in the month of June, having been 13.91 in 1867, the average
of the three years being 10.85 inches, for that month. The least rainfall was in Dec.
1867, 0.01 and in January 1868, 0.01 inches. In the months of February and March no rainfall fell. The no. of days on which it fell, and the total rainfall were:
1867 days 114, full 37.32 inches
1868 " 109, " 38.29 inches
1869 " 84, " 27.68 inches

The average being 102.3 days and 34.57 inches.

During the year 1876 the following results were obtained by observations taken at the Surveyor General's Office, Bath

Barometer highest reading 30.467 on 25 July

Lowest 29.319 on 13 Nov.

Thermometer Max. in shade 112° on 20 July

Min. 34.7 on 24 July.

Highest mean for the month 48.7 °F.

Lowest 40 on 26 July.

During the dry season land and the trees alternate, the latter usually setting in early in the afternoon, about 3 P.M., and continuing until late in the evening.

The rains are strictly periodic and correspond with the Winter months, from May to October. Early in May rain generally begins to fall, and continues with increasing severity through June and
July—Most of the rain falling between sunset and twilights. August and September are also characterized for much rain, but with repeated intervals of very warm weather. Indeed there is not one month of the year in which many fine days do not occur. The rain comes mostly with wind from the North West, the weather clearing and the gale moderating as the wind gets to the South west of South West. October and November are delightful months with little or no rain. In December the heat increases and continues to do so during January and February, but it is tempered by the cool sea breezes in the afternoon, and occasionally cool days. On the other hand, the land breezes sometimes blow for several days without intermission, making the heat very unhealthy. March is sometimes very hot, but it is usually relieved by longer intervals of cool weather. April is a fine month with occasional rain.
During the height of summer the heat is often much increased by the number of bush fires which rage in every direction, caused either by accident or intentionally by the settlers. These fires act as a thermometer, indicating the depth, causing the cattle feed to spring up more luxuriant. The settlers need to have their tongs turned at least once in three years and generally manage to get their coke, notwithstanding the penalty of £20 which the law inflicts on any person proved to have willfully or carelessly set fire to the bush. Thunder storms are not common, and as a rule not very violent, but there are marked exceptions about once in three years causing great destruction to property and occasional loss of life. Snow is quite unknown, but during the height of winter the thermometer occasionally reaches zero. I have heard of showers of hail of enormous size occurring in winter, but never witnessed one.
Alto the climate has ever been considered healthy, it is difficult to obtain sufficient data to form a true opinion. The limits hardly and the peculiar circumstances of the population must not be forgotten. The total population is under 30,000, of these about 15,000 are males, and 12,000 females. The death rate from published statistics, which are not very reliable, is 13.47 per 1000. This certainly is a low rate when compared with England.

But in considering the question we must not forget the comparative smallness of the number of children and old people, and how the greater part of the population consists of the immigrants and convicts. The immigrants usually arrive as healthy adults, and the convicts were all specially selected, and medically examined before transportation. None but young and healthy convicts were sent. Their mode of life after their arrival is well adapted for maintaining health. They
are well fed and clothed - the cubic space - learning and ventilation are carefully attended to - their work is light and in the open air, and great care is taken to protect them from exposure to rain and inclement weather.

The wages in the colony is to lift that poverty, as known in the home country, to extinction. There are no unhealthy trades, no factories, no crowded courts and alleys. The occupation of the inhabitants is agricultural, pastoral, or the tribute trade, with a few miners. Could the influence of these circumstances be estimated, the healthiness of the climate would probably not compare to favorably. On the other hand, the bad sanitary condition of the town, the life of the Colonizing class in the bush and outlying districts, the life of the convict after his release from prison, the unhealthy diet - while many of the settlers have to use, considering mostly
Breath, Tea, and Meat. The bread frequently fermented, the tea without milk, and boiled in a pan nihil, and the meat more frequently tallow than flesh, and without vegetables, accidents and sickness occurring in the troops while medical aid is undiagnosable, would all rather increase than diminish the death rate. In considering the healthiness of the climate, the medical statistics of the troops stationed in the colony may yield us a little. The statistics of the detachment of the 12th Regiment show that during a period of five years with an average strength of 850 men only 149 cases of sickness had been treated in hospital, or about 2½ cases per month, and during these five years, only 6 deaths occurred, the causes of death being: 1. Drowned. 1. Exhuastion of the blood. 1. Paralysis, with liver disease. 2. Phthisis, and 1. Apoplexy.

The statistics of the Enrolled Patriots show that during the ten years...
1866 to 1874 the average strength of the prisoners doing duty was 260 men. Of these 61 in all died, giving an Annual Mortality of 24.4 per 1000 of Strength. Taking into consideration that the prisoners in all old men whose constitutions have been damaged by previous long military service in all parts of the world and that the majority of them have been in vialed as unfit for further service this is a small average.

The Causes of Death were:

- Continued Fever - 2
- Asthma - 1
- Phthisis Hemoptysis - 13
- Dysentery & diarrhoea - 4
- Aureus - 2
- Meningitis; Apoplexy - 4
- Hepatitis - 9
- Paralysis - 1
- Pneumonia - 1
- Tuberculosis of spine - 2
- Pneumonia - 4
- Hepatitis - 1
- Bronchitis - 3
- Cancer - 2
- Kidney Disease - 7

Total 61

The Small Number of Deaths from Fevers
of all kinds is a strong point in favour of the general healthiness of the climate. This may be accounted for by the absence of malaria which Western Australia enjoys from some cause not yet thoroughly known. If the nature of the indigenous vegetation which is wholly perennial, and consequently does not at any season leave a large amount of decaying vegetable matter, - by the very permeable nature of the soil, and by the occurrence of rain only during the winter season, avoiding the injurious influence of continued heat and moisture - the fatal cases of fever mentioned above seems to have occurred early in the decade and their nature is not further described than as continued fever. It is difficult to account for the large amount of phthisis and hemoptysis. How much it was the result of former disease is impossible to determine, and it is probable that some of the cases returned as phthisis from the out stations were
of old soldiers suffering from disease or degeneration of all the viscera, brought on by tropical disease, abuse of alcohol, and by general disease. Still the months of November and December appear to be injurious to those who are already affected with lung disease. During these months the variations of temperature are often very great—frequent and sudden extremes as much as 20° F. during the day.

Again in Fremantle and Perth in the same months when the vegetation is withered up there is frequently a fine dust suspended in the air which proves an irritant to the lungs. With regard to the number of deaths from hepatitis it is more difficult to decide. Undoubtedly the majority of the pensioners show marks of treatment for hepatic disease before their arrival in the colony and the large quantity of animal food and alcoholic drinks to which their high pay entitles them to indulge no doubt tends to keep...
up and increase the diseased condition already existing. Yet there is a good deal of hepatic disease among the civil population which may to some degree be accounted for by the diet generally used by the working classes, which consists, as already mentioned, of animal food and bread, without vegetables, this, more especially being the case with the rural population, and it may be further accounted for by the large consumption of beer and spirits. But I am not quite certain if this is enough to account for the whole amount of hepatic diseases and I am inclined to think that the climate naturally produces a tendency to diseases of the liver in Europeans, the low climate rate from dysentery and diarrhoea is surprising. There being only four cases during the ten years. Because the post office remember that their old soldiers have been vaccinated as target for further service, that nearly all of them
These diseases
had served in climates where these diseases are common, and it may be concluded that a certain number suffered from them before arrival in the colony, that their mode of life in the colony, eating too much meat and drinking too much alcohol, naturally tends to these diseases. This low death rate therefore speaks favourably for the climate.

Upon the whole it may be safely said that the climate of Western Australia is favourable for Europeans who arrive in the colony in middle life. It is too early to decide on its effects upon those born there. The colony has not existed more than half a century and the population has always been small, never over 30,000, and is composed to much of convicts and immigrants, and is scattered over such a large extent of country, that the statistics are necessarily unreliable. The young men born in the colony are, as a rule, tall and slight, and
weigh light for their height. There is a general opinion among resident medical practitioners that illness of the nervous system are more frequent than in England, but a longer period of observation and more reliable statistics are required before the question can be decided. - The freedom from malaria, the dry permeable nature of the soil, the perennial vegetation, and the absence of summer rains have been already noticed. At no time of the year is the temperature excessive for any lengthened period. For both the thermometer reading is high, sometimes over 100° F, yet the heat is always modified by the sea breezes, which are distinctly felt at a distance of 12 miles inland, and the heat is hence continuous, day and night, for more than two or three days at a time - owing to the rapid evaporation from the surface of the body, caused by the warmth of the atmosphere, and the constant
Movement of the air, temperature is almost unknown, and the strongest exercises may be taken under the bright rays of the sun with perfect safety at any season of the year.

Epidemics are very uncommon. Small pox has never been introduced, and it may be inferred from the great difficulty experienced in producing the Vaccine Parbole during the hot weather that the disease would not spread during the summer. A few isolated cases of Scarletina occasionally appear probably introduced in articles of clothing imported from the other colonies. But the disease has never become epidemic and never assumed the Pneumonie form.

A recent epidemic of Measles occurred twenty years ago which proved very destructive to the Aboriginal natives. It however died out during the hot season and has not reappeared though a few sporadic cases are occasionally.
Among the diseases the following are the most important: 

An epidemic of Influenza occurs twice a year at the change of the seasons. It is frequently fatal, chiefly amongst young people at the age of puberty. The terminal cause of death being generally Congestion of the lungs. The disease is generally ushered in by fever and general prostration, followed by Catarhal Symptoms, but in some cases the Chest Affection first shows itself, followed by extreme debility and low fever. 

There is a peculiarly attending febrile state in the Colony, known as fever and that is the great amount of Ataraxia in proportion to the severity of the other symptoms. This is the case in patients of all ages. 

Odynodynia is common and severe, 
Diarhoea is also common and proves fatal to young children. There can
He no doubt that these diseases can often be traced to the contamination of the drinking water with sewage. As a rule each house has an open well and a closet situated close to it—the winds of the house are thus liable to remove the excreta from the closet. To the fluid part is allowed to seep into the very porous soil, and the solid matter to accumulate for years. Their part has contaminating the water, and the solid contaminating the air.

Ophtalmia is prevalent apparently at all seasons, especially in the mantle. No doubt the glare of the limestone excites it—wears of the cornea. Granular lids, and tearing. Ophthalmitis due to the dirt with, and proven very obstinately resisting almost all treatment. Enteric fevers are found both in the town and trail, but there are clean owing to the lead lining. Without this lead could easily be removed.
The melamine is not infrequent, thought of from the foundering of the letters often causing them to keep in the trunk without proper provision. This is not common. The cases I have met with, have been old cases from the home country. All pain suffering from this disease speak highly of the colony. No doubt life in these cases is greatly prolonged by suffering in the colony.

The Regulation of Western Australia

It would be a tremendous task to labor at length upon the Botany of Western Australia. Baron von Mueller, the government Botanist of Victoria, mentions in a lecture recently delivered at Ballarat, that 5000 species are found in either of the other Australian Colonies, comprising in all 313,653 species, of which 25,520 are Acetylcedons, 5,553 Monocotyledons, and 2000 Dicotyledons, ferns and their allies.

Of course, the most important were
...actions of the vegetable kingdom to the cattle are...The grains and flake wheat form a food for cattle and sheep. But there are other forms that are interesting in a medical point of view, and these I shall notice as well as some of the more valuable timber trees to commerce.

As mentioned when discussing the climate, there is a perfect freedom from malaria, even in the shores of the marshes, which may possibly be owing to the total absence of deciduous trees or thorns and consequently the absence of any accumulation of vegetable matter at any particular season. The trees are all evergreen. The eucalyptus or gum trees, of which there are about 100 species, from the tall gum and give the special character to the forests. These forests have an estimated area of 30,000 square miles, extending from the interior plains in the north to the south coast, and to the east of King George Sound where they all out-
The following are the chief species of the Eucalypti found in the Colony.
Eucalyptus Rootiana or Red Gum.
Eucalyptus Marginata or Narrow-leaved.
Eucalyptus Distincta or Kurrajong.
Eucalyptus Tetrodonta or Portrait.
Eucalyptus Pontinus or White Gum.
Eucalyptus Coccophora or Torke Gum.
Besides being valuable in commerce their Eucalypti are not devoid of medicinal virtues.
The leaves of the Eucalypti generally are much used in various ways — externally as fomentations. They are found useful in various swellings and inflammations.
I am personally aware that a simple decoction of the leaves acts as a charm in inflamed eyes.
The Eucalyptus Rootiana furnishes the common red gum, which is an excellent antiseptic.
And may be considered a specific in cases of syphilitic and ulceration. It must however, be used with caution. I have known results produced by it more terrible than
The disease it caused - The red gum also makes
an excellent disinfectant - Apart and is much less
by the settlers as a household remedy in a
form of the throat - That seems to pre-
vent or some districts during the early
tempest -
Eucalyptus Marginata - The Iarrhake -
This has become the most important of all
the Eucalyptus as an article of commerce.
It is estimated to cover an area of 10,000
square miles - It is a wood of great
strength and durability, and is of great
value for ship building - Bridges - Jetis -
It resists the attack of sub marine animals
and of the white ant - And when bolts are
rails driven into it do not rust - And
therefore do not rottyn -
Thirty 500 men are engaged in the felling and
cutting up of this timber - The Iarrhake
Timber Company has large works - It has
23½ miles of railway, twelve locomotives,
45 horses, two jetties, one 445 feet long and
the other 300 feet long. It employs 190 hands
and the population of Parramatta is 370. It is peculiarly situated in a Glen among the hills. It has a Post and Telegraph Office, Savings Bank and Money Order Office; Hotels, Hotel Templars Lodge, Reading Room, Assembly Hall and Government School. The Lockville Tobacco Company is fully larger than the Parramatta. It has 24 miles of Railway. For two years I was Surgeon to the Company.

And can speak to the general healthiness of the men, women, and children. The little wooden town of Lockville is situated on the beside near the jeties. It has all the advantages of Parramatta. Before I left the Colony there was a talk of removing the hills, and consequently the town, into the heart of the forest, so that the felling and cutting up could be carried on near each other. Eucalyptus Diversicolor - The Karii.

The Karii may be regarded as the Prince of the Eucalypti. It is found only in the Lower Blackwood and Lennon Districts. The healthiest district of the Colony -
It is of gigantic proportions - In appearance these trees resemble tropical trees, their trunks being smooth and of a light colour, and the tapers gradually from the base upward. They are all straight as a needle. Their average height is from 150 feet to 200 feet, but many will exceed this before the lowest branch is reached. And some of the branches have been estimated at 160 feet. Their average diameter is from 6 feet to 7 feet. But like the height, this diameter is often exceeded. A settler in the Canaan district was fortunate enough to be able to use one of these trees for one of his sides of his stock yard, and I was told that a horseman on horseback could not see over it - Before visiting the district I had often heard of their size and beauty, and was agreeably surprised to find they had not been exaggerated. That these enormous trees exert some influence on the climate cannot be doubted. The whole atmosphere is impregnated
I am of opinion that a visit to the great sites is alone worth a trip from England.
with a pleasant aromatic odour springing from these trees — this is especially noticeable in the early, in the early morning, it causes an agreeable feeling of invigoration, accompanied with a desire for exercise — the settlers and their families all enjoy the best of health — during my visit I made particular inquiries on every opportunity, and I am glad to report the time has come that they have known of any serious illness occurring in the Karri Country. The Karri is quite as valuable a timber as the Jarrah, but its huge size prevents its being used. I happened to be at Busselton when a vessel of Karri arrived from Augusta where it had lain, for 35 years, in the touch of the tide — on examination it was found to be perfectly sound, and to have quite resisted the attacks of the two worms, Litoraria terrestris, and Euclytus timoriellus, or white gum tas
found for the most part in the beds and
on the banks of all the rivers of the Colony,
Eucalyptus Camphorifolia or the Forest-
Tree is a great tree. The wood is
very close grained and of a light color
and is used for the various purposes
to which hard wood is applied. It
is also valuable for the immense quantity
of gum it contains.
Eucalyptus Murringa, the Sandalwood of the Colony
is an important article of commerce. Large
quantities are yearly exported to China and
India. It is used for ornamental work
and is much prized for its perfume and
the beautiful polish it takes, turning to the
very fine green.
The Banksia, belonging to the Protea Order, pro-
duces large quantities of resin and the wood
is useful for cabinet work.
The Raspberry Jam Tree, so called from
its peculiar scent, and known also as the
Banksia, has an extremely hard wood which
is used for turning and for furni}
The Tea Tree, or Paper Bark (Pappus) grows in large quantities by the sides of the creeks and on the banks of rivers. It is still used, as in days of old, for roof building and also for carriage tires.

The Tea Bark (Casuarina quadridentata) is common in the colony. It has a hearty, heavy wood, and is much used in house building.

There are various species of Acacia in the colony which yield a gum closely resembling the gum Acacia of commerce. This gum is much used as a demulcent in colds and sore throats by the settlers.

The wattles are species of Acacia with astringent-tart bark. The Black Wattle is a valuable tree for fencing, and this is also a good astringent for internal use.

The Black, Red and Grass Kees (Hattoria Mud, Hattile, and Hattoria Mud, Artesia), belong to the order Liliaceae, and Zania, belonging to the order Cyrtaceae, are characteristic of the vegetation of Western Australia. They are
This year is principally demand in England and the present time as here it febhrant h 2003.

Thos. R.

[Signature] 1803
Introgenous, and connect the present flora with that of the Carboniferous geological period. The Black Bog is a peculiar tree, the stem somewhat resembling a palm and growing a height of 7 feet to 8 feet. On the top of this stem is a head formed of long ivory grass, from the centre of which a long narrow stem like a stalk springs up to a height of from 6 feet to 12 feet. The base of the head is laden with leaves. It is very sweet and succulent. The Grass Tree is taller and heavier than the Black Bog, and the head more grass-like. The Zamia is like a gigantic spine apple with a crown of pods like a palm tree. The Black Bog yields a very fair gas, and its gum may be used for the same purposes as pitch. The Zamia is very Angledous, and the excellent arrowroot can be made from it, about 14 lbs of the centre of the stem yielding 1/2 lbs of gum. The Zamia nut is used by the natives, but it has first to be specially prepared. Otherwise it is poisonous.
Travel: Species of Asparagus, Celitris, and Caimanas are found in the Northern District. Here also is found the Asparagus Gregoria. The Snake-Headed Tree of Australia is apparent in very peculiar setting to the dwelling and the formal character of the trunk. The bark of the Asparagus yields a white gum which is said to resemble Macaroni both in taste and appearance, and the other gums is an agreeable delicacy. The fruit is a large nut resembling a Cocoa nut. The seeds within the nut have the appearance of almonds, and are very palatable. They are used as food by the Aborigines. The plant known as the Australian Asparagus is found in different parts of the Colony. It appears to be a species of Leptospermum of the Order Myrtaceae. Settlers in the district frequently use it in place of Chinese Tea. It is said to be fragrant, palatable and wholesome. The Asparagus, of the Plume Nut may order, is found in the Colony, its bark is an
In Portobelo Bay district, the Secretary General reports (April 11th, 1683) the country as far as he had seen it is magnificently graced by fine places, thickly timbered with a mixed kind of trees; with Calophyllum and other trees; and the grass is quite the best in the Island convenient. He also speaks of Portobelo Bay having a commodious space, anchorage, and as being one of the best harbours in the Colon.
excellent tonic—

The indigenous flowers are very brilliant—like a rule that clicks—September and October, with the early part of November, are the chief months for them. All attempts to cultivate them in gardens have failed—erns and graces are rare. The fourth of the native vegetation, according to Baron Müller is composed of Leg. The orders Leguminosat and Proteace He live several species of fungi—seven or ten are important as articles of food. The natives frequently have to depend upon them. Opinions and other marsupial animals are said to the fungi of them and largely use them. Some of these fungi are phosphorescent and are then useful as landmarks to the traveller by night—On several occasions I have been grateful to these luminous fungi for telling me when I was and by their help I have learned the time as they gave out sufficient light to
The climate of the colony is especially adapted for keeping fruit, and it is an industry that might well be cultivated. Dried fruits are unpicked, and the cage prison, while the same fruit is allowed to rot under the trees.
enable me to consult my watch—
although there are no fruit trees of any
importance indigenous to the colony. Nearly
all the European and many of the Asiatic
are successfully cultivated.
Vines are largely grown, and fair binding
wines, such as are used in Hungary and
the north of Italy, are made. In common
with all Australian wines, they contain
a very high percentage of alcohol, much
above the average of natural European
wines. Raisins of good quality
are made. The fig, olive, almond, and
mulberry trees all cultivate well—
Pomegranates are grown, but not with
great success. Bananas grow well
near the towns and lakes. The orange
trees all do well, and the same may
be said of the lemons. Pomegran。
Many species of the Carbohydrate, especially the
indians, grow to an enormous size
The cotton oil tree is looked upon as
a weed. It grows to a height of 30
Farming as presently carried out is however very primitive. The soil or locality is not specified. The farming consists of sowing the seed on land ploughed two or three times or not ploughed at all, and turning the chaff after the harvest. This is repeated year after year without manuring the land. Ultimately the land becomes sterile, and the farmer looks out for fresh land to replant the same process. Nothing has been attempted to improve the land. This is certainly a bad waste of good productive farming in the West.
to 40 feet, and spread at an amazing rate in any place that happens to be temporarily neglected - no one is made of it by the colonists - at the Mission Station at New Norcia Tobacco and Cotton have been successfully cultivated - oats may be cultivated in the south, and Wheat, Barley, and Raisin throughout the Colony - Potatoes thrive and give a large return - the same ground yielding two crops in the year - All the shadowy plants of the garden and hot-houses are cultivated in the open air with great success - Climbing Vines, and many other plants, spread into enormous shades -

**Animal Products**

The native Animals of Western Australia, considering the extent of country, are few as regards species, and none as regards individuals - There is not one large animal amongst them, and the Puffer, Porcupine, and the Porcup
It is therefore the more surprising to find that these animals, so useful to mankind, thrive so well.
Ar mata are entirely absent – fifty years ago horses, cattle, pigs, sheep, and goats were unknown to the Aborigines, and now there are wild herds of cattle, mobs of horses, numerous pigs and goats roaming all over the bush.

Of the indigenous Ferns family, nearly all belonging to the order Graminaceae. This order is distinguished from all others by their young being born prematurely and remaining in a pouch till they can take care of themselves. All fossil remains which have hitherto been found belong to this group – the Kangaroos belong to this order. There are two species of Kangaroo, three large species found in the open woods, heaths and plains – the brick Kangaroo, found among rocks, the wallaby, and Kangaroo rats. They are destructive – hunting the Kangaroo is one of the chief sports among the settlers. Most of them keep dogs for this purpose – they are called Kangaroo.
Cops, and appear to be a species of dog
hounds - they are large, powerful and Swift.
The Rabies dog is an animal indigenous to
the colony. It is the size of a small wolf,
and is of a yellowish or reddish color with
usually a black track down the back.
In its general form and appearance it
resembles a dog or Wolf. It is Carniure
and commits great harm among the Sheep.
It is very fierce and active, but avoids
An Intruder with Man, whom it instinctively
 avoids, and will fight, as an Enemy.
There is a peculiarity in this Animal which
totally destitute of Teeth. It cannot, or at least does not, Leap.
The smallest fence is sufficient to obstruct
its Course. By the Rabies, it is known by
the name Bongo. It used now regarded
as indigenous, it is supposed by many
to have been introduced by the Early
Explorers -
Iguana, Lizard, snakes and Torpedos
frequent the Bush.
The Iguana is eaten by the Rabies, who
Consider it a great delicacy, and indeed many travellers speak highly of it as an article of best diet. The mode of cooking it, and all other animals in the bush, is primitive. The animal is inclosed in the red hot ashes for half an hour, by which time the skin becomes detached from the flesh, and the flesh is ready for eating.

Many species of snakes are found in the colony. But it is only in the far north where the larger and more dangerous abound. The bush and the whip snakes are considered the most dangerous in the Lachlan districts. Death from these tribes is not common during a residence of five years. I can recall only one fatal case. This was two cases in which life was in danger, but the heroic treatment promptly employed proved successful in both cases. The treatment was cutting out the wound.
Applying friction with the mouth, and
then Centration, till doses of
ammonia and brandy being admin-
istered at the same time.
The worst thing is the taste, painful
and disagreeable, causing much swelling
and inflammation, accompanied with
vomiting and general malaise.
It is seldom or never fatal.
There is a peculiar species of edible
snail found in the Black Sea
chitonacea) and turtles. It is known
by the name "Turbit", and is about an
inch in length, and of a pale yellow
color. It has a pleasant, delicate
flavor, and is considered very
nourishing. It may be used with
advantage in anemia, constipation,
and in other cases where
Castor oil is indicated. It is
generally taken raw, but epicureans
do not despise it when tempered
and mixed with curry.
The Birds of the Colony are numerous and are chiefly remarkable for their gorgeous plumage, very few of them being songsters. The principal land birds are the Eagle, Turkey, Mountain-Pigeon, Peafowl, Cuckoo, and a species of bustard. The principal water birds are the White and Black Swan, which are still to be found in large numbers on the rivers, lakes, and estuaries and lakes not frequented by man. Ducks are very numerous in all parts. Fish is exceedingly abundant along the coast and in the estuaries. Whiting, Bittern, Turbot, Bream, and oysters are some of them. The smaller fresh water streams contain special species peculiar to them selves. Eels, Lamprey, and the Electric Eel. The latter is capable of giving a powerful, not to say unpleasant, shock to the unwary trout. The Chelid, a species of cobra, is also found in fresh water streams.
turtles tried to be very numerous along
the coast, but have decreased of late
years — seals are common in the north,
and belong to the north — the sealing
yields valuable oil, and its fat is
largely used in place of butter by the
Norwegian settlers, who speak of it in
glowing terms — its skin is of great
thickness and valuable for making tallow.

The seal judges in the north is an im-
portant industry giving employment to
a large number of men.

Minerals — The most important minerals
are coal and copper — the ores of which
are abundantly and widely diffused.

Iron ore mines are at work, and pay
tell — the treat of capital and labour
alone limits the quantity produced — Iron
ore is also abundant, especially in the
 Darling Range. Coal has been often searched
for, but nothing beyond lignite has yet been
found — Specimens of tin and helium
have been found — Gold which has been
Obtained in all the other Australian colonies has not yet been discovered - Sir R.
Furneaux declares that it will be found in the Northern part of the Colony -
It has been often and eagerly looked for, and the dig Eureka has often
been visited, but hitherto without finding.
As late as last December (1852) a lot
of quartz was sent to Melbourne to
be crushed with the confident hope
of giving a good yield of gold.
The Aborigines of New Australia.
The Aborigines of Western Australia have
been too often placed among the very
lowest of savage races, but experience
has certainly proved that they deserve
a higher place in the scale of humanity.
True to the tradition there is little
taking place with those on the Coast -
and it is said, that I think with little
authority, that the Coast Rabbits are
upright of the Victorian, and consider all
Whites and its Care attributable to them.
Bishop Tolanda of New Korea says that three hours' labour out of the twenty-four is all they are capable of.
In their native state the Aborigines do not toil, nor till the ground; they are hunters and their food is the natural produce of the country. In following the chase they are capable of great fatigue, but they are not capable of enduring prolonged bodily toil. In the north, and the hotter parts of the colony they wear no clothes, and build temporary huts of brushwood, but in the south, and the colder parts, they wear a cloak made of the skins of the kangaroo, and build strong huts constructed of logs and clay. And in the winter when they carry under their cloaks a burning piece of wood, generally the dried fruit of the bankia, which burns very slowly and gives great warmth.

The children take the name and belong to the family of the mother. I use the term family because I understand that terms do not exist in the colony, and that the word family gives a better idea of the division.
of the aboriginal inhabitants — Polygamy is allowed, to keep the children of the same father. They have altogether different relations, interests, and obligations. Inter-marriage between those of the same family is not allowed.

The following table was compiled by Bishop Talavera of New Focesia. It gives the relationship in the families about New Focesia. The upper lines of bracketed figures show the families to which inter-marriage is permitted; the lower those to which it is forbidden; (inheritance by the brother, and not by the father).

<table>
<thead>
<tr>
<th>Family</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ziroquis</td>
<td>2. Pitosos</td>
</tr>
<tr>
<td>2. Pitosos</td>
<td>3. Iriagues</td>
</tr>
<tr>
<td>3. Iriagues</td>
<td>4. Jandaros</td>
</tr>
<tr>
<td>4. Jandaros</td>
<td>5. Mondoros</td>
</tr>
<tr>
<td>5. Mondoros</td>
<td>6. Jiragios</td>
</tr>
</tbody>
</table>

It does not appear very clear from this table why some families are incapable of inter-marriage. But it is evident that, under such conditions, both the parents...
Courtship: Scratching each other.

Butcher's meat was unsustainable.

For many years after the first settlement of the colony, Kangaroo flesh was sold by the butcher, its provision became a regular occupation, and the Council asked among the Gheringa for want of their customary food. Allowing those animals now supplied, there

from illiterate whose hunting grounds had been occupied by the settler, in tend on the territory of others, contests, retaliations, and permanent fear was consequent among them.
and tribal systems, the legalities associated with these terms become impossible. Females are betrothed when very young and may be claimed at any time. The marriage ceremony is very simple, being merely the taking of the bride to her husband's hut, while she then prepares for his reception.

On the death of the husband, the wives and children belong to his brother. A father's property is divided among his male children. All property is held for hunting and retaining food. The chiefs are well known and transgressions for these purposes are punished by law.

Here it may be mentioned that these tribes are most submissive to their own laws. All the relatives of a culprit are implicated in his guilt and if the offender cannot be reached, any one of his relatives may be called upon to suffer in his stead. This is well
Legal according to Kari 


understood even by the young children, who are in their minds, and prepare against it.

The amount of punishment for every offence is apportioned and known. But an offender will, not uncommonly, present himself for punishment. There is a case on record of a man who readily suffered himself to be killed in retaliation for a false manslaughter he had committed, and to prevent a battle. When prominent, between his family and friends and those of his victim. Another case is recorded where two young persons, being attached to each other, were content to suffer some punishment—three times, in order that, the case being satisfied, they might afterwards live together.

Punishment are usually inflicted with the spear, and the part of the body to be pierced is known for each offence and punishment confirmed to it. There been told by an eye witness that
Homicide in obedience to law is therefore
common amongst them - their law is blood
for blood, an eye for an eye & a tooth
for a tooth. The death or wounding
of any relative from whatever cause, equally
requires retaliation, to the same or greater
amount of injury, of the nearest relation.
it is wonderful how truly they can punish, sometimes receiving as often spear thrust in the thigh or else where, without the slightest sign of flinching — sometimes their heads may be seen standing knee to knee opening each other alternately in the coldest fashion, until loss of blood or death compels them to stop — death is not regarded as natural, but due to witchcraft, and the nearest relative of the deceased is bound by law to take the life of one person of the family who seems most likely to have visited the sorcerers (or witches) to imitate the misdeeds which caused the death.

In the Sourn Great Penal Establishment for Transported Persons at Bottnert-Hill tens of the inmates have been imprisoned for carrying out this law — the convicts are very fond of singing, and when they meet they tell their adventures in extemporaneous poetry — their singing is adorned by musical instruments
occasionally plaintive — their voices as a rule seem soft and pleasing.

The women are the chief editors of vengeance, and by their wild songs and gestures stir up the men to the highest pitch of excitement, and indeed get so excited themselves that they fight desperately with each other using freely any weapons that may lie at hand.

They are also fond of war, and their dances, or corroborees take place at any special occasion such as birth, death, marriage, or war. The men alone take part in them, decorated for the occasion in all their glory with war paint and feathers. The women sit round in a circle, and applaud and stimulate to the occasion.

In communicating with each other by message, tons or sticks will ease scratched upon them are used. This species of cipher is neither alphabetical
Kangaroo, Grasshopper, 29 1/2 lbs of fish - 29 1/2 lbs,

Joseph, Le Jean, Le Maurice, 16 miles, 40
For pictorial, let those the ears is li-
telligible to them. For keeping count, they
use the time when thick as spoken
of in books antiquity - the most simple
of all methods -
The food of the Rabies in their wild side,
as previously mentioned, is the natural
products of the country. In most
districts, it is abundant in quantity
and varies in kind. It is to
be obtained mostly by hunting, fishing,
and digging - and their implements
and weapons are well suited for
the purpose - many of them taking
both for the chase and for trade.
The following is a list of their
weapons and implements -

Weapons: The Spear, Tillet +
Bood for throwing, the Spear, Thrown
Shield, Mundah

Boomsang, Keykay + Threblends.

Sticks for throwing or striking.

Doloks or Peas.
The Spears used in the North are longer and heavier than those used in the South. Near the settlements they are more commonly armed with broken glass. Formerly they were armed with tiles. In the North, some are of reddish wood and are called tilons. Some are cattails and are called tipulera.

One of the most Northern Attractions are long narrow shields of soft wood, with a handle in the center, and the top covered by small grooves in parallel lines, which arrest in the fleshing the spear when it strikes.

The Kayley or Boomerang is a curved piece of wood which they throw with great force still, the gyration of which are very irregular and that is uncontrollable.

The Bowset is not unlike a kalee in appearance, and has a piece of hardened black dyed gum at the end, with a stone enclosed in the gum. It is...
Sometimes used as a Club, and on other occasions it is thrown, the thrower using it with great force and precision.

**Implements**

- The Kajgel - Yargoo, Googor, Cooja.
- Knife or saw - Dabba.
- Digging sticks - Evanna.

The Kajgel and Knife are armed with Pirin (which is a mixture of black boy sage and red charcoal) and tika - helu - the ordeal in the Card for carrying children, and for taking small animals.

The baby Kangaroo is the most important animal to the Aborigines. Not only giving them food, but telling them useful lore. Its skin is used for cloaks, and bags, and its sinews supply the place of thread and string - its bones also are used for many domestic purposes. The mode of hunting this animal has been well described in Seller Natural History - it is however sometimes taken in quickfalls near living places, and a pointed stake...
Driven in at the fording places of rivers - Fish are generally speared, but in the North Nets are sometimes employed. These frequently tucked with interest the patience and skill with which the spear the small fish - The laws of the chase are well understood - If two or more spears are found in the same animal, when killed it is the property of him who threw the first - This law is rigidly enforced - That the Rabbit's ears and the Kangaroo there can be no doubt - but it is rare that they indulge this trade, and it is now confined to those who inhabit the northern points of the Colony.

Bracemats - The Cloth or cloak can hardly come under the category of Bracemats - It is the only Rabbit woolen - There is the women the smaller than the men - It is worn in the same manner as the Roman toga of old. The women also carry a bag, or bokha, a coarse, made of
The Roman art is
The material is the Cloth, for Kangaroo Skin.

Fur, for the head - Toranaas.

Fur, necklaces, and

The Eye Stone - Mullaange.

Opossum fur is spun into yarn, Bolton, which is wound round the loop. Many times, form a thick girdle, in which the King, Kajon, and Debbin the Carrick - it is also wound around the head, and there ties, to thick feathers - in. It is also used as a necklace -

Whidgey, a sort of Red Ochre is used to colour the face and body -

Funeral Ceremony - When a death takes place, the women sit round the body in a circle, and keep up a constant wailing and mourning, at the same time lacerating their faces and heads with sharp tools. The grave is dug very carefully, under the direction of the bridegroom for ever. The deceased is dug up by the hands - when
finished a fire is lighted within the grave. and in the midst of the fire the tootoos pretend to see those who have been the Cause of the Death.

The tootz is brought to the grave in procession with songs and recitings, the men cutting themselves and sprinkling their blood on the corpse. Sometimes also they cut off their beard and the head of the corpse, and, having tied the hands, rub their bodies with them.

The body is generally buried lying with spears in hand, kipley and hatchet in belt, feathers in hair, and surrounded by other weapons and implements—having been well wound up with a mound of earth. A great number of spears are put around the grave and piled behind, having the back twisted and called at the top, are placed on the trench, and placed directly on the grave in trenches, recently made near the England.

Numerous tootoos
but other weapons are placed round and on the grave - the body is generally placed on the grave with the face looking east - a small containing table to sit in front of the grave - the whole is surrounded by a very thick impenetrable hedge, about three feet in height - for some time after the death, the relatives of the deceased visit the grave daily in the early morning, and sing to their singing and tattooing show their respect for the dead - they also go into mourning, which consists in painting their faces while like all other savage races the aborigines of eastern Australia are very superstitious. The belief in witchcraft is prevalent everywhere - the power of their doctors or foremen is a constant source of terror to them - they have also their Karakol or medicine, able to inflict as well as to cure diseases - they think that disease may be inflicted by means of
Medicine camp on their production to live during

By the Dark Face Kimman
Tomes, tomes, good, or any other matter to while the foreseers or the Medicine Men have committed the influence. Pieces of crystal called "Fire" are held in Australia, as having great healing properties. They seem to have no picture of a god, but they have great fear of an evil spirit, whom they call Ganga, and whom they suppose to inhabit the more deep and gloomy recesses of the hills. There is also another monster, whom they call Taungul, who inhabits the lakes, and is also a great terror of terror—They do not seem to have any idea of a life beyond the grave. It is said that they revere the early colonists as the returned spirits of their deceased relations. I fancy this was with the hope of gaining capital out of the sale of bread. Men. I have known several settlers who have been very much frightened.
See photographs at page 80.
Having heard that circumcision and other rites were said to be practiced by the Aborigines, I visited the Native Penal Establishment at the Island of Rottnest in August 1874 with the purpose of investigating the truth of these rumours.

There were about thirty native prisoners on the Island, and among them good representatives of the different families with the assistance of the superintendent I divided them into three classes:

Those from the North - those from the East - and those from the South - and a photographer, who accompanied me, photographed the three groups separately.

It was markedly evident that those from the North were much superior to those from the South - those from the East - and an intermediate position.

I mainly determined the several types of families with the following results:
The practice circumcised - It is performed at the age of puberty. The prepuce is drawn forward over the glans penis, and the operator with a sharp pointed flint stone, called tayon, (being always circular in shape) cuts completely round the penis, at the point where the prepuce becomes continuous with the integument of the organ. The prepuce is then forcibly pulled forward and completely torn off; the raw surface is left to heal of itself. The prepuce, I am told, is eaten by the brother.

At or about the same period, one of the minor teeth, generally on the right side, is taken out. Two pieces of grass are inserted on each side of the tooth, and kept in for three days, during which time the patient is not allowed to speak. The tooth gradually gets loose, and is then knocked out with the dowlak, a teaspoon preceding
2. The families in the De Eerl river have an extraordinary custom. At the age of puberty, instead of circumcision, the testicle is slit completely open, the flaps extending from the greater perineum to the middle of the leg held up. This is performed on the under surface of the leg. The lad is known down, and one of the sons of the family performs the operation. The weapon used is the bayonette. The corpus chongorum is completely cut through, and the flat side of the bayonette inserted into the wound, and rubbed up and down in order to lay the flaps wide apart. The bone or weapon is again inserted when the wound is half healed, in order to prevent the parts from contracting. In the cases I saw, the corpus cavernosa could not spread flat-out, and the exposed surface of the testicle was bare and non-inflated.
3. Among the Rabbits inhabiting the Country on the North side of the Mackenzie, between Mounts Arthur and Munroison, the same Custom exists, but the Trethra is cut to a greater extent, extending from the Trethra to the Trekra. The operation is performed by the same implements, and in the same manner as in the case of the De Gray Rabbits. Water cannot be well passed through in the legs are placed very widely apart, it is therefore usually passed through a squating posture.

I was able to get one of the men to expose himself to the photograph, and the result is seen in the accompanying photograph. (See Page 74.) As far as I could learn, there are the only Rabbits in the Districts already mentioned. In the district of the De Gray, and the Munroison, but it c
Leaf-like in shape and serrated at the edges.
which extends further north—
In each case it takes place at a particular season of the year.
No females are present—The men wander
away in bodies, and are separated from
the females for this week's every year,
and it is supposed that these rites take
place at that time.
Five or six men hold the patient while
the operation is performed, and the
two crowd round in a circle, and
by winding and shaking and twirling
a piece of flat wood attached to a string made of human hair, termed
a hero-string, which produces a humming sound, help to distract the at-
tention of the sufferer.
The stone with which the operation is per-
formed, and also the hero-strings are pre-
erved after each operation will find
never. It is exceedingly difficult to
get the natives to speak about these
rites, and the origin of them is not.
known.

It is supposed by many that these rules are practised with a view of preventing the increase of population - but this I do not believe. These natives are very fond of children, and there is abundance of food in their districts, so there can be therefore no reason why they should desire to prevent the increase of population.

Besides, I think it is very doubtful whether the male cutting open of the testicles would be a preventative to any extent. In the development of the penis the under or posterior surface is at first simply grooved, to increase the two sides of the groove unite and form a complete tube, embraced by the Corpus Spongiosum, and the pencil testicles is the result; but in some cases no union occurs, the testicles open on the under surface of the penis, constituting the malformation known as hypospadia. This malformation in the
Minor degree (and the care of the De Expug ratio is very similar) is of no con-
sequence whatever. The erectile tissue
of the penis is situated in the tuber-
ous part of the organ - in the corpora can-
trum - erection can take place,
and the semen, or at least part of
it, will be fairly lodged within
the vagina. But its properties in the
higher grades is a very scarce thing.
The corpus spongiosum is undeveloped
or is represented by a firm band
which binds the penis down to the
scrotum, so that in erection the organ
becomes curved downward, and hence
it is impossible. Consequently impossible - The
Drakes on the North Side of the Marsh won
the Serpent, but this is performed at the age of puberty, when the parts
are fully developed; erection of the
organ will continue to take place
and it shall with course therefore the quick
practicable. Even in this case I see no reason why the semen, or part of it, should not be expelled from the vagina. It is to be remembered that very little semen is known requisite to cause impregnation and in these cases the tissues of the penis must necessarily be pressed together to a certain extent during coitus, and this, together with the capillary attraction in the groove of the treads, would be sufficient to convey part of the semen onward to the vagina. It is also to be noted that in some birds and reptiles a mere groove takes the place of the treads, and that in some animals the pencil treads, though complete, is often behind for my own part I am inclined to think that these operations were first performed to give relief in cases of inflammation of the treads, and that this mode linger gradually became custom — I have been informed.
those who have visited speak with the
reticence that the females also undergo
an operation, but what it is I have
been unable to learn. There is no
doubt that at certain seasons the two
sexes separate, but very little is known
as to the objects or causes of this
operation.

Tattooing is universal throughout all
the tribes of Western Australia, male
and female alike. I examined a
number of men of the north, and
found that tattooing is generally
limited to the front of the body,
extending from the clavicle down
to the umbilicus, below which it
ever reaches. The natives of the
Murchison districts have their shoulders
tattooed as well as the chest. The
operation of tattooing also takes place
at puberty and is as follows. The
fingers immediately above the umbilicus
is marked in a fork extending across
the body. This ridge is cut from one end to the other with a sharp-edged tool, or of the years, near the telltale districts, with glass. It is tied down this ridge another is tied and cut in the same way, and to the tendril the clavicle, or just below it, is tied. The same process takes place when the shoulder is tattooed, the ridge running parallel with the muscular fibers of the deltoid-tendons. Charcoal, pounded up, is then rubbed into the open cuts. The flesh is left to heal, which it does very quickly, and the tattooing is finished. The more marked the tattooing, the more attractive is the result. It is also the custom for all male subjects throughout the colony to have the epiglottis hare pricked at puberty. The instrument used for pricking is a kangaroo bone the pronged to a point. A charred piece of wood is affixed.
tubed and frequently turned round, and is left in until the wound is healed, and the freemason permanent. The freemason carried in the nose is usually a big stone of the Kangaroo, and is called by the natives Bullogange.

During my visit (or rather visits, for I was there on several occasions), I took the opportunity of making a number of measurements, so as to be able to compare the height, girth round the chest of the Aborigines with those of the white man.

The results of the examination of 53 Aborigines are given in the following table:

Table of stature and girth round the chest of fifty-three Aborigines in Botany Bay, New South Wales. Taken 14th August 1879.
<table>
<thead>
<tr>
<th>Location</th>
<th>No.</th>
<th>Greatest Height</th>
<th>Greatest Trunk</th>
<th>Least Height</th>
<th>Least Trunk</th>
<th>Average Height</th>
<th>Average Trunk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany</td>
<td>10</td>
<td>5 1/2</td>
<td>2 1/2</td>
<td>5 1/2</td>
<td>2 6 1/2</td>
<td>5 1/2</td>
<td>2 7 1/4</td>
</tr>
<tr>
<td>York</td>
<td>13</td>
<td>5 5 3/4</td>
<td>3 0 1/2</td>
<td>5 0 1/2</td>
<td>2 5 1/2</td>
<td>5 3 1/2</td>
<td>2 7 3/4</td>
</tr>
<tr>
<td>Championcy</td>
<td>12</td>
<td>5 6 1/2</td>
<td>2 9 1/4</td>
<td>5 0 1/2</td>
<td>2 6 1/2</td>
<td>5 3 3/4</td>
<td>2 7 3/4</td>
</tr>
<tr>
<td>Murchison</td>
<td>13</td>
<td>5 9</td>
<td>3 0</td>
<td>5 2 1/4</td>
<td>2 6 1/2</td>
<td>5 5 3/4</td>
<td>2 8</td>
</tr>
<tr>
<td>Rio De Lep</td>
<td>3</td>
<td>5 9 1/2</td>
<td>3 1 1/2</td>
<td>5 4</td>
<td>2 11</td>
<td>5 7 1/4</td>
<td>2 7 1/2</td>
</tr>
<tr>
<td>Guevigney</td>
<td>2</td>
<td>5 6 1/2</td>
<td>2 10 1/4</td>
<td>5 5 1/2</td>
<td>2 8 3/4</td>
<td>5 6 2/3</td>
<td>2 8 1/2</td>
</tr>
<tr>
<td>Half Treed</td>
<td>2</td>
<td>5 9 1/2</td>
<td>3 1 1/8</td>
<td>5 8</td>
<td>3 0 3/4</td>
<td>5 8 3/4</td>
<td>3 0 3/4</td>
</tr>
</tbody>
</table>
From the foregoing Table, it appears that the greatest height in 533 Racines was 5 feet 4½ inches, and the least height 5 feet 0½ inches. The greatest girth round the chest was 3 feet 1½ inches, and the least girth 2 feet 5¼ inches. The general average of height being 5 feet 5½ inches, and of girth 2 feet 3½ inches. Omitting half-breeds, the Rancherio Racines were found. Had proper separation been possible, the returns from the Upper Valley of the river would probably have shown higher figures.

Taking now the height of fifty prisoners as admitted into the Convict Prison Fremantle, the following comparison can be made:

Convict Fremantle - Greatest height 5½ ft 11½ in, Least - 5½ ft 0½ in.

Rottnest - 5 ft 9½ in, 5½ ft 0½ in.

Average white Convict - 5 ft 5½ in.

Black - 5 ft 5½ in.

As if, to make the Ranchers own, the three Ranchers of the North West, whose
height is much above the average, I have

convicts. Females - greatest height 5 ft. 11 1/2 in. East 5 ft. 6 in.

Rotten. " 5 ft. 9 in. 5 ft. 4 in.

Average. White convicts - 5 ft. 5 3/4 in.

Black " 5 ft. 5 in.

In measuring fifty prisoners at the convict establishment, the females, I found

the result as below.

Greatest Girl 39 inches

Least Girl 30 inches

Average measurement 2 ft. 11 1/2 in.

It will be seen that the female convicts compared unfavourably with these results.

Rabies - Greatest Girl 3 ft. 4 1/2 in. 2 ft. 5 1/2 in.

European " " 3 ft. 3 in. 2 ft. 6 in.

Average. Rabies 2 ft. 9 1/2 in.

" European. 2 ft. 11 3/4 in.

Having noticed that Professor Huxley

in his work on the Comparative Anatomy

of the Vertebrata, states that the forelim
and hand, the leg, and the foot of the Australian natives are often larger in proportion than the Europeans. I carefully measured these parts in fifty natives and in fifty Europeans, and give the results in the following table.

<table>
<thead>
<tr>
<th></th>
<th>Arm +</th>
<th>Leg</th>
<th>Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>European</td>
<td>Rabbit</td>
<td>European</td>
</tr>
<tr>
<td></td>
<td>17 in</td>
<td>17 in</td>
<td>9 in</td>
</tr>
<tr>
<td>Long</td>
<td>18(\frac{3}{4}) in</td>
<td>19(\frac{3}{4}) in</td>
<td>20 in</td>
</tr>
<tr>
<td>Mean of leg neglected</td>
<td>18.3</td>
<td>18.28</td>
<td>14.02</td>
</tr>
</tbody>
</table>
From the measurements it will be seen that the fore arm and hands, but the leg, of the Tasmanian Australian native, is considerably longer than that of the European, but that the foot is smaller.

Having obtained two native skulls from the Inspector-in-Chief of the Botnet Establishment, I examined and measured them according to Professor Tursley's method, and obtained the following results.

<table>
<thead>
<tr>
<th>No. 1</th>
<th>No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm</td>
<td>7 1/3 inches</td>
</tr>
<tr>
<td>Transverse Arm</td>
<td>5 1/4 inches</td>
</tr>
<tr>
<td>Height</td>
<td>5 3/4 inches</td>
</tr>
<tr>
<td>Projection of Upper Jaw</td>
<td>1 1/2 inches</td>
</tr>
<tr>
<td>Cranio-Facial Angle</td>
<td>94°</td>
</tr>
<tr>
<td>Cephalic Index</td>
<td>68.85</td>
</tr>
<tr>
<td>Contents</td>
<td>80 cubic inches</td>
</tr>
<tr>
<td>Skull: Thickness of Skull: Hull No. 1</td>
<td>Hull No. 2</td>
</tr>
<tr>
<td>Parietal Bone</td>
<td>1 1/4 in</td>
</tr>
<tr>
<td>Frontal Bone</td>
<td>4 1/2 in</td>
</tr>
</tbody>
</table>
Following is illustrated throughout
the story: Male + female alike and is
generally limited to the chest + upper
part of the arm. The hair is extended
in a ridge extending across the body, then
ridge is cut from one end to the other
with a sharp edged stone. The cut
allows the ridge to unthread - Thread
+ cut in the same tally + to the down
to the middle of body. Wood
Charcoal is then rubbed into the
open cuts, the flesh left there
w5. It also, very quickly,
it is then the custom for Indians
to use the topknot of the inner
pricked at parting - The custom
used for pricking is then a
Kangaroo bone sharpened to a
point. A channel puck forms
in afterwards incised, it frequently
The photographs, which are prefixed, will help to give an idea of the physical type of the Aborigines. I have also placed in the fly leaf a photograph of a collection of their weapons and instruments, and of the two turtles examined by me as mentioned at page 79.

In concluding this account of the Aborigines of Western Australia a few remarks upon their present condition may not be deemed inappropriate. Let it be remembered that the whole country was theirvey, reserved right for that of possession; but that after the British flag was hoisted at Fremantle it was virtually taken from them without consideration or compensation.

No sooner did the Aborigines receive the Newcomers to their shores, but they were not long in discovering that they were being deprived of their hunting grounds and that the animals, on which their food supply depended, were being killed.
The Surveyor General in a letter to the Governor dated Oelrichs Bay April 11th 1893 says, "The boats were well manned by deserving Indians engaged in pearl diving, their appearance and conduct reflected great credit upon the energetic gentlemen engaged in this industry. It was the first opportunity these had of taking the Indians at sea engaged in pearl diving, it has highly pleased me; the Indians are strong, healthy, willing, and while engaged in the primitive industry are to all appearance satisfied with their occupation."
placed by the flocks and herds introduced by the settlers. Their food supply failing
when they became dependent on the settlers, and from being lords of the soil
they so to speak became owners of food
and drawers of water to the laborers
helps to their suppliers
As guides there poor Rabbits were invaluable to the early explorers and
settlements. All the fittest and the
best watered lands was discovered
through their instrumentalities.
As servants they have proved themselves
reliable and trustworthy, more especially
as stockmen, travelers and shepherds.
But the settlers as a rule have not been generous to the supplanted race, and
whilst eagerly accepting their services
he have treated them with contempt,
required their services very inadequately.
Consequently many of the Rabbin insufficiently
intelligent to know that they were justly
tried, have returned to their old and
A Scant. prevalence, W vive dependent upon the
invading race...

Western Missionary Society in London first aid
it's Attempt first spent altogether 1,200 & but so many
children died. But in two years to give up the
work with the English Mission.

If the 140 natives in Tuarigua at Kristoel, I
should say 150 were there either for they are
their own thing & customs & they obey
be, or else for Sheep stealing. And Stein
my audience will agree with me that it
would be difficult for a savage to cheer
defy the difference between killing a
Sheep and a Spaniard especially if found
seeking on their Farm hunting Ground &
perhaps belonging to a Estate who had
marked them. Fortunately, I probably will
remain for Kristoel.
The Government felt that it ought to do something for the Aborigines, and made several attempts thereat, but felt none of them succeeded. A depot or refuge was opened for them near the sea, but it soon came to grief. Protectors were appointed but their opinions were disagreeable to the new lords of the soil, so their offices were abolished. A Native Council was held on Rottnest Island, and in still in force. There Aborigines are imprisoned for obeying their own laws and customs, and for ignoring the fact that they are subjects to the British Crown.

The various Religious Bodies have at various times, established Mission Stations, but only one of them has hitherto with any success. The Roman Catholic Mission at New Norcia—This Mission is on a large scale here being some 50 Benedictine monks, chiefly Spaniards, who devote themselves to attempting
45 Married
Rubric tags - 23
Rubric Suits - 23
3 hours to total - 3 to million + the rest to total
A farm that means to become - Tailoring sharing
Shears making good

They learn to speak English. Earls have a good idea of learning.
to civilise the Aborigines. Whilst their success has not been great, it has been sufficient to show that the Aborigines are capable of improvement. I myself have seen letters composed and written by these Aborigines that would do credit to an educated Englishman. I have listened to the music of a native plantation whose touch from a c金色球员, and I have witnessed a team of native cricketers defeat a strong team of Englishmen, and this not once, but again and again.

The place however is disappearing. The missionaries may teach them to read, to write, and to work; the settlers may make them useful servants; the Government may imprison them for breaking their own laws, but all the time they are fighting and long for their old back-life. Pining life and hardship have in their case their names for wealth. It is rare now to see an old, or even
A middle aged native in the settled districts - A slight illness, a cold, or a general attack is sufficient to kill. The Ingenus - They are dying out fast. European habits and customs do not suit them. Besides which the vices and diseases introduced by the whites are rapidly at work, and at no distant date an interesting race will have disappeared before the march of civilization.

Mrs. Robertson S.R.B.
Future of the colony. Rapidly developing - Railways, good pastoral & agricultral lands, honey, melons, 33,300 acres of cotton, rice & cereal. In 1873, a night made for it by Captain Madden, father from New South. An exaggerated idea of its value; beeswax, & beeswax, beeswax. In the forest, the Dinner - Now I can almost say it is, not a district where gold can be made without oil. You can plant a pearl shell to obtain without labor. It is merely with fertile plains, scarce specially good for tilling, cattle, pastoral purposes, more especially horses & cattle and also sheep, standing & thriving. Pastoral & agricultural culture. Most of the semi-arid parts Western must expect to wash it, prone of trouble, difficultly. Work under a tropical sun. From November to February the heat is oppressive, the rain heavy & continuous. Then whole suffers the greatest agony from mosquitoes, day and night. But in the settled parts & cool Western districts.