

Our reference to Tasman's chart reminds us to correct a misconception to which some observations in our number for July, 1845, might give rise, where (p. 321) the first publication of this chart is ascribed to the English captors of Batavia.

We shall make no further remarks on the present state of the chart of Tasmania than to declare our sincere satisfaction at the recently-expressed intention of Lieutenant-Governor Sir William Denison to prosecute an amended survey of the island, under the immediate auspices of the local government, and our hope that the instructions issued to the officers employed may prove worthy of the present state of modern science, and may, if possible, be published for the sake of directing inquiry upon this topic. The *mundus novissimus* of Australia is at this moment the best-illustrated of the regions of the earth in the department of natural history and physical description, thanks to the exertions of Count Strzelecki and the ornithologist Gould; and we trust that the same distinction may be in store for it at the hands of those to whom the new map of Tasmania is about to be entrusted.

The excellent spirit which breathes through the pages of Capt. Stokes' work, his zeal and industry, his thorough relish for the pursuits of the explorer, and his watchful ardour in the due fulfilment of his commission, all unite to relieve, though they cannot wholly remove the fact, that, apart from the mere charm of novelty, the shores of Australia are not among the most interesting objects of maritime research. A sandhill once in two hundred miles relieves the level desolation of one portion of the coast; a river, partaking rather of the nature of a gigantic and uncertain torrent than of a regularly flowing and useful stream, is with difficulty detected in another portion; the scanty population which haunt the shores but seldom betray their presence to the voyager, except to take cruel and inhospitable advantage of his unprotected moments, and would appear on the most interesting occasions of contact with their European visitors to be lost in an unreasoning apathy. One chapter in Capt. Stokes' book makes us feel still more perceptibly, by contrast, the somewhat untractable nature of his subject. It is that which has been contributed from the pen of Capt. Owen Stanley. No

sooner are we transported from the northern shores of Australia to the islands of the Arafura Sea than the whole face of things begins to brighten, amusing novelties teem on every side, the silence of the desert is exchanged for a succession of sights and sounds which excite our involuntary interest, and we feel that we are once more within the precincts of that oriental world which has still some store of undiscovered wonders for European voyagers, after three hundred years of almost constant investigation.

The vast unmanageable block which forms the continent of Australia contrasts very remarkably with the features of that other portion of the earth's surface which lies immediately to the north. Taking a section of the same length and breadth as comprises Australia, we find it chequered by a thousand islands, and divided by innumerable seas and channels. The scanty forest of Australia is exchanged for the rankest vegetation, the boundless plains for bold volcanic disruptions. What will be ultimately the relations of the inhabitants of this vast archipelago with those of the Australian main, it is impossible now to foretell, nor whether Australia or India is destined to exert the most important influence in this direction hereafter. We must turn from the tempting speculation to the subject more immediately in hand.

However devoid of interest the shores of the Australian continent may be, and those shores more especially which have been last examined, the bold coasts of Tasmania cannot be subjected to such an imputation. Those massive tiers which traverse the island from north-west to south-east are for the most part first seen by the English voyager where they descend with a precipitous declivity into the depths of the ocean upon the southern coast. Two of these vast chains, opening further to the eastward, form that noble entrance from the south which leads through the waters of Storm Bay and the Derwent far into the bosom of the country. The sunny shores of the eastern districts, with their castled cliffs and rocky islands, were not closely examined by the *Beagle*, though much needing investigation; but on the north little or nothing has been left unfinished. There the chief portion of Capt. Stokes' Tasmanian labours were ex-

pended ; and the difficulties of Bass's Strait may now be considered at an end, so far as charts can aid the sailor. The western coast still demands the labours of the explorer and surveyor, to whom its unsheltered and precipitous front, and the prevalence of westerly winds sweeping over a boundless ocean, offer no very attractive prospect.

As Capt. Stokes has not confined himself wholly to the coasts of Tasmania, we may be permitted to follow him into the interior, where he saw and describes in a concise and graphic manner a memorable scene of social ruin and distress such as can never, we trust, again recur. Without entering at large into the discussion of his supposition that it was owing to the mistaken penal arrangements of the defunct probation system, we may observe that even the imagined pressure of moral evil may form a most serious aggravation of the fits of alternate excitement and depression to which the economical relations of every newly-peopled colony appear to be subject.

The earth, the air, and the sea, would all appear to combine in marking out the future destiny of Tasmania as the *officina gentium* of the southern world. Her soil demands the diligence, her climate secures the vigour, her surrounding seas invite the enterprise of her own inhabitants, to an extent beyond any of the neighbouring countries. Inferior to most in her natural capacity for the varied products of these southern climes, she is second to none in the capability of preserving to the human race the enjoyment of its highest energy and development. Her airy hills and plains are deficient in the profuse vegetation elsewhere met with ; but to this very circumstance we owe the enjoyment of a Mediterranean sun without a Mediterranean malaria. Nor need there be any apprehension that future inhabitants will lose those physical qualities of strength and hardiness which have been introduced from the temperate regions of the European world. Should the lower districts of the island of Tasmania prove to possess a too stimulating climate, the upper districts of the lake country are yet in reserve, and are capable of supporting many thousands and tens of thousands of a highland population, when once the lower district has received its natural complement of occupiers.

Where a few lakes appear on the present map, hundreds in reality exist, scattered over that great natural platform whose rough and undulating surface occupies the western portion of Tasmania. Raised from 2000 to 3000 feet above the level of the rest of the island, its average temperature is equivalent to that of a country lying in 52° south latitude, and its climate derives a temperate and humid character from the influence of the Southern Ocean, to which it is completely exposed. Fostered but not relaxed by the genial sun of these favoured latitudes, the human race bids fair to attain a degree of physical energy which will exercise the happiest influence upon its social and intellectual developments.

J. P. G.

MINUTES OF THE TASMANIAN SOCIETY.

August 4, 1847.

READ a paper entitled "Some account of the country between Lake St. Clair and Macquarie Harbour (V.D.L.)." By Mr. J. E. Calder, Government Surveyor. Communicated by Lieut. Kay, R.N.

Read "Meteorological Observations, more especially with reference to the fall of rain in New South Wales." By the Rev. W. B. Clarke, M.A., F.G.S., &c.

Read a "letter from W. S. MacLeay, Esq., addressed to the editors of the *Sydney Morning Herald*, on the skull exhibited at the Colonial Museum of Sydney as that of the 'Bunyip.'" (Published in the present number of the *Tasmanian Journal*.)

Dr. W. R. Pugh drew the attention of the members to a series of experiments, published in the London *Pharmaceutical Journal*, on a poisonous plant which had destroyed many sheep, cattle, and horses at Swan River. (For particulars see page 312 of the present number of this Journal.)

Mr. R. C. Gunn stated that the poisonous plant of Swan River alluded to was described in Sir W. J. Hooker's *London Journal of Botany* to be a *Gompholobium* (of the nat. ord. *Leguminosæ*), and in that work (vol. i. p. 93, &c.) there were some interesting letters dated in 1841 on this subject from Mr. James Drummond, the zealous Swan River botanist. Mr. Gunn observed that as great numbers of cattle had died on both sides of the river Tamar near the sea without any visible or known cause to which their

deaths could be attributed, these might have arisen from their eating an indigenous species of Gompholobium (*G. latifolium*, Sm.) which is abundant in the pasturage of those neighbourhoods. He suggested that in experimenting upon the properties of our Gompholobiums, it would be as well to extend the inquiry into the properties of the allied genera, *Aotus*, *Sphaerolobium*, and *Oxylobium*, which also abounded in the same quarter, and might exert prejudicial effects on cattle feeding upon them.

Dr. Pugh exhibited some specimens of Serpentine from Glen Dhu, near Launceston, and Graphite from West Head, River Tamar.

C. S. Henty, Esq., exhibited several very perfect specimens of a fossil *Spatangus* from a recent marine limestone formation west of Portland Bay; also some curious nodules of iron-ore from the Darling Range, Swan River.

A large specimen of *Thylacinus Harrisii* was exhibited by W. H. Breton, Esq., which he had recently obtained from Auburn, Macquarie River. It was a male, and its dimensions were as follow :

	Ft.	In.
Nose to insertion of tail	3	10½
Length of tail	1	8
Height of shoulder from the ground.....	1	10½
Girth round the body behind the shoulder.....	2	0½

Dr. Pugh mentioned that the barometer at the Royal Magnetic Observatory, Hobart Town, on 22d July, 1847, was as low as 28.566; the weather being at the time fine.

C. S. Henty, Esq., stated, with reference to his previous observations on the habits of the Black Swan, as published in the Minutes of the Tasmanian Society, July 2, 1845, that the Swans at Srathmore had as usual returned (about a month or six weeks ago) to lay their eggs and breed, after an absence of several months.

August 18, 1847.

Read a paper "On the Geology of Point Nepean, Port Phillip." By Dr. E. C. Hobson, of Melbourne. (See p. 240)
Dr. Hobson observes :—

"The narrow strip of land bounding Port Phillip on the south, and separating the waters of Bass's Strait from that bay, and terminating in Point Nepean, consists of stratified calcareous sandstones, limestones almost as soft as chalk, beds of vegetable mould, and a base of basaltic rock. The surface is one succession of abrupt hillocks and depressions such as are seen in the ordinary sea dunes, excepting that Point Nepean is covered with a dense vegetation of trees and grass. The most interesting feature in the structure of this point of the coast is the existence of two fossil forests, the one above the other, the trees standing erect where they grew. The oldest is seen in some places

above high-water mark; and in others it passes downwards, and is hidden either by the sea or talus of sand from the cliffs. The trunks and roots are converted into a hard compact crystalline limestone as hard as marble; the roots extending themselves into a chocolate-coloured vegetable mould in which they appear to have grown. The stumps are embedded in a pretty hard sandstone, which is composed of fine siliceous grains and finely-comminuted shells cemented by a calcareous matrix. The unbroken line these fossil trees present is singularly interesting, there being no fault in the whole I have examined. The sandstone inclosing the trees is very irregular in its stratification, exhibiting precisely the structure of a bar or sand-bank, if consolidated into rock. The size of the largest trees I have seen are from eighteen inches to two feet in diameter. The characteristic structure of the wood is entirely lost; but from the irregularity of the trunks, and the number and size of the roots I think there can be little doubt of their exogenous character. Above these stumps and between them and the upper fossil forest there is in many places a deposit of sandstone, calcareous boulders, and loam of upwards of one hundred feet. The upper line of trees are in situ, and stand erect where they grew; they are more friable than the lower ones, and exhibit the woody character less distinctly. The roots and stems are for the most part decorticated, but in a few there are some coarse markings not unlike the rough bark of the *Casuaraceæ*. The broken extremities of the stumps in some places protrude through the grass and underwood, and are nowhere covered by more than a few feet of sand and vegetable loam, which would indicate their submergence did not extend over a long period.

“The most superficial stratum consists of limestone as white and soft as chalk, which it resembles in some of its zoological characters, viz. in the existence of nodules of flint which inclose spicula of sponges, sharks’ teeth, the spines of a large *cidaris*, great numbers of a forameniferous shell, resembling the genus *lenticulina*, several species of *terebratula*, *cellepora*, and the fossil claws of crustaceans. Other forms will, no doubt, be brought to light when a more careful examination is made of the superficial stratum. This upper deposit appears to have been formed under more tranquil circumstances than the lower beds of sandstone, which from the comminuted character of the broken shells that enter into its composition indicate the action of a boisterous sea.

“The changes that appear to have taken place in the level and form of the land on this part of the coast are, first, the existence of a sand bank, which was gradually raised above the sea level, and subsequently covered by a dense vegetation. This land again subsided until it became covered by the sea, and after a considerable lapse of time (indicated by the amount of detritus accumulated) was elevated, another generation of plants flourished upon it,

and it was again submerged. The land was a third time raised to its present height, upon which the luxuriant trees now existing grow. The emergence of the land on its last elevation appears to have gone on more rapidly towards Point Nepean, which would place an island in mid-channel, and account for the size and character of the trees, which on this more elevated and apparently older portion consists of large *Eucalypti* and *Acacia dealbata?* which do not grow betwixt Point King and Cape Schank, where the vegetation consists of *Casuarina quadrivalvis*, *Banksia* of three species, *Acacia melanoxylon?* and another smaller species *Bursaria spinosa*, and some other shrubs; there is but one *Eucalyptus* tree on the whole ten miles. We know generations of plants, as well as of animals, are progressive and give place to new ones; this may solve the problem of the non-existence of *Eucalypti* over ten miles of country and their sudden appearance on the extremity of the Point.

“From carefully examining the coast, I have no doubt but that these fossil forests extended over a considerable portion of the Bay of Port Phillip and Bass’s Strait, an opinion which is borne out by the fact that after heavy gales pieces of fossil wood and resin are driven on shore in the Bay. I have traced this fossil forest as far as the heads of Western Port, and have observed it in several localities on the shores of the Bay, and I have also been informed that the same kind of fossil trees are seen at Cape Liptrap to the eastward, and on the coast beyond the Glenelg to the west.”

September 2, 1847.

Captain Owen Stanley, R.N., and Captain C. E. Stanley, R.E., were elected members.

Read a paper “On the Osteology of the Marsupialia.” By Professor Owen. Vide page 271 of the present number of the *Tasmanian Journal*. Mr. Gunn observed with reference to this paper that it would be desirable to ascertain whether the two species of *Wombat* may not exist in Van Diemen’s Land, as Dr. Hobson had satisfactorily ascertained that both inhabit Port Phillip. Perhaps the *Wombat* found in such vast numbers on the plains and lower country about the St. Patrick’s River, &c., may prove to be distinct from the one found usually amongst rocks and stones in elevated situations.

Read extracts from a letter from Professor Owen to Mr. Ronald C. Gunn, wherein he expresses an anxious desire to obtain an impregnated *Platypus* or *Echidna* preserved in spirits. Also the brains of the *Thylacinus* and *Dasyurus* (Devil of the colonists), with a view to making out the internal structure. A skull broken open and immersed in strong spirits would give the required opportunity. Mr. Gunn expressed his hope that some of the members would aid him in procuring these desiderata for that eminent comparative anatomist Professor Owen.

Lieut. M. C. Friend, R.N., exhibited a series of fossil shells from the secondary limestone at the Black Brush collected by Dr. W. R. Pugh.

A fine specimen of that curious crustacean, *Ibacus Peronii* obtained by the Rev. J. Garrett from a fisherman, who stated that he caught it on the coast a little to the east of George Town, was exhibited by Mr. James Grant. It was $5\frac{1}{2}$ inches long and $3\frac{1}{2}$ inches wide at the widest part of the carapace.

Mr. James Grant mentioned having seen swallows (*Hirundo nigricans*, Viell.; *H. pyrrhonotus*, Vig. & Horsf.; *Collocalia arborea*, Gould.) this day for the first time this season. They usually appear at Launceston about 1st September.

Lieut. W. H. Breton, R.N., observed that he had been informed that Snipes (*Gallinago Australis*, Lath.; *Scolopax Hardwickii*, Gray) had been seen early in August; their usual time of arrival being about 1st September.

September 15, 1847.

Read some additional particulars relative to the poisonous leguminous plant at Swan River, and a specimen of it was exhibited by Mr. Gunn; also specimens of the *Gompholobiums* of Tasmania.

Dr. James Grant exhibited two very curious species of *Shark*, and a *Diodon*, obtained by the Rev. J. Garrett in the river Tamar at Whirlpool Reach.

Dr. Grant also exhibited a specimen of Carboniferous slate, closely resembling Graphite, stated to have been obtained from the east coast.

September 29, 1847.

John Helder Wedge, Esq., was elected a member.

Read extract from a letter from His Honor C. J. Latrobe, Esq., dated 23rd September, addressed to Mr. R. C. Gunn, as follows:—

“ I can add little about the *Bunyip!* beyond this, that I am more and more convinced that there are two large nondescript animals to be found in our waters; that of which our blacks give a description being quite distinct from that which appears to frequent the waters and lakes more to the north. A third animal of which glimpses have been seen occasionally in the waters directly communicating with the sea is, I have no doubt, a *Seal*. I send you two sketches of the animal described by our blacks, and these coincide in the main with those which I have seen delineated by the tribes north of Mount Macedon. No. 1 was sketched upon the sand in front of Capt. Lonsdale's cottage, and though ten or twelve feet long was still said by the *artist* not to be quite as large as life. A few days after, being at the native police station, Dandenong, I made some inquiries amongst the

older natives, and No. 2 is the animal drown by one of them. I send you the original. The two sketches certainly are intended to pourtray the same animal. It is pretended that before the Europeans arrived the river Yarra near Melbourne possessed many of them. We will catch one yet, if it does exist."

His Honor Mr. Latrobe also forwarded to the Society the Monthly Meteorological Registers kept at Melbourne for the year 1846, and which possess much interest and value.

C. S. Henty, Esq., stated that snakes were out at an unusually early period this season, having been seen in the beginning of September. He also observed that he had killed some as late last season as the end of April.

Very brilliant *Aurora Australis* was seen on Monday night, 27th instant, by several of the members.

October 20, 1847.

Read a paper "On the Landslips which have recently occurred on the west bank of the River Tamar, Van Diemen's Land." By Lieut. M. C. Friend, R.N., F.R.S., &c.

Read a pamphlet "On the Specific Gravity of Sea-water in different parts of the North and South Atlantic Oceans, and in the South Pacific, near the Western Coast of South America." By Captain Phillip P. King, R.N., F.R.S., &c. (Printed for private distribution.)

Read a paper published in the Sydney Morning Herald 28th September, 1847. "Comparison of the Geology of Russia with that of Australia."

The Secretary read the following Analysis, by Mr. Thomas Anderson, of Edinburgh, of the Salt from the lakes Westward of Geelong, Port Phillip :—

Chloride of Sodium (common salt)	99 654
Sulphate of Soda.....	104
Chloride of Magnesium.....	052
Insoluble residue.....	190
Lime.....	a trace
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	100 000

PLEASE NOTE

**THERE IS AN
ERROR IN THE
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OF PAGE
NUMBERS FROM
327 - 330.**