

Carroll's Water  
8<sup>th</sup> June 1896

Dear Professor, Dearing in mind  
that I have such an acute little  
critic, I must try and amend the  
writing and avoid the blot on this  
occasion. I certainly felt careless  
and off color when last I wrote,  
but a few days trip over the delightful  
country on the Stephenson, and the  
prospect of a holiday in September  
have restored me to my normal  
resigned condition.

I was glad to hear about Hartland.  
He is a genuine worker at all events, and  
tho' I don't envy him the appointment and  
its multifarious duties, the trip, if

it includes the country lying west of Barrow and Tennant. Crusts, though so interesting and may result in some good mineral discoveries.

I have just finished reading the Geology and having a look thro' the Botany in Part 3. The Botany so far as I am capable of judging seems good, but I cannot see that the Geology adds much to our previous knowledge. Since '90 it has been known that the many ridges of the Adirondack are Silurian and the age of the underlying Quartzites & Schists may well be left until fossil finders of their age is forthcoming. A strong improbability hardly seems sufficient reason for relegating them to the Pre-Cambrian and I am inclined to think that Brown's opinion well proves correct, tho' no doubt he was with respect to the age of the foot

Silurian Conglomerates.

In describing the Adirondack Country I at first the usually accepted explanation of the formation of the gaps etc, but he makes only one mention of a fault, and does not refer at all to the Simpson Gap Range which Howe has been of interest. But what amuse me in the report was the introduction of Lewis and Clark. Lewis no doubt is now a good man, but when he visited this Country in '91 he knew absolutely nothing about geology and he learnt little during his journey. He thought that the Quartzite was basal, that the horizontally bedded hills (the Poranina) were Tertiary, and that the fossils he discovered were Carboniferous. He was quite jubilant over the prospect of discovering a lost field at Adirondack Springs! When he arrived in Adirondack he took him in hand, determined to

fossils as Upper Silurian, and between  
them they brought forth a Pamphlet in  
which Brown's classification of the  
Coraminnia Range as Devonian was  
adopted, and Fenimore Wood's opinion  
re the dolian formation of the desert  
Sandstone put forward as Shewings's.  
East was a fair mineralogist and had  
some knowledge of geology, but he was  
in the unfortunate position of having  
no one to cut from. He regarded all  
the rocks to the base of the Silurian  
with the exception of those at Horwich  
as Cretaceous, and thought  
the Stony Tablelands were the boulders  
strewn beds of ancient rivers which  
the boulders had protected from denudation,  
tho' he made no mention of the latter  
idea in his subsequent report.

Actually, Tate in attacking Shewings'  
and East is to a great extent demolishing  
his own earlier views respecting

the Mc Donnell.

The Silicification of the Cretaceous rocks is certainly a puzzle, but I don't think Tate need have conjured up a land 600 miles long by 200 broad, fitted with innumerable volcanic vents vomiting fire, ashes and bombs to explain the phenomenon. The usually mild and inoffensive Finchs may have butted the Crown Point Range and knocked a hole through it. tho I should have thought a passage thro' the low country four miles higher up would have been preferred, but how so many volcanoes could have existed in Post-Cretaceous times and only left bombs to tell the tale is a mystery. The theory covers all the phenomena no doubt, but it has yet to be proved that the bombs are connected with the Silicification - I am inclined to think that they are

derived from outliers of the older rocks, and that the desert Sandstone may have derived its silica from sea water, while the lower brecciated hills with Chalcedonic cappings may represent extinct hot springs.

It is hard to believe that the Silicification of the desert Sandstone, the lower brecciated hills, and the still lower ironstone stratum was contemporaneous. If it was, it must have occurred yesterday - and yet the desert Sandstone is much denuded altho' it resists the weather better than the ferruginous breccias or ironstones.

When travelling up the Stephenson last week I noticed a number of low hills composed of an impure siliceous limestone resembling travertine, and capped with slaggy looking blocks of Chalcedony which in places were cemented to the limestone. These hills are the horns of the "unrolled

agates found between the Stephens  
 and Floods Creek but tho'  
 I searched for some time I could  
 not find any obsidian in their  
 vicinity - There are also some hills  
 near C.W. capped with large  
 masses (up to 10 tons) of a vesicular  
 silicious rock, overlying brecciated  
 felspathic rocks, and unaltered  
 argillaceous sandstone and ironstone  
 but here again there is no obsidian  
 However, whether the worthy Professor's  
 Theory of the contemporaneous silicification  
 of about 120000 square miles of country  
 thro' the medium of volcanic vents (which  
 broke out like masses on the lower  
 country instead of showing along  
 the lines of least resistance - the range  
 is correct or not. He certainly scores  
 over the other geologists in giving  
 an explanation of those extraordinary  
 features - The clay pans - Quads

to think they were formed thro' the  
Natives covering them, and  
thus pulverising the stones and  
lowering the level of the ground;  
but tho' this view would also explain  
the hardness of the muggers feet I suppose  
I must give it up.

By this mail I am sending you  
the same old lot of beasts, which I  
expect you will fervently wish in the  
Yarra when you receive them, but until  
rain falls there is no chance of  
getting either Noctoryctes or  
Wipula, and I am afraid I have  
worked out the new species about  
Leys - in Marsupials at all events.  
I am also sending specimens of the  
vascular rocks and the Chalcedony  
and limestone mentioned, besides some  
Emu Poison bush, and a plant  
which I would like to know the  
nature of. It looks like an Euphorbia

and is credited with very poisonous  
Properties

I am glad to hear that you  
will be able to pay us a good  
long visit this time, and regret  
that my departure for town in  
September will prevent my being  
here when you arrive. But I  
will probably see you before  
you leave, and as I will be back  
in December we will be able to  
set the Rain Corroboru pictures,  
and any stray beasts that may have  
been overlooked.

While I am away I expect either  
Field or my brother Jack will  
be here, and I know they will be  
as anxious as myself to assist  
you in every way.

It is unnecessary to say that it hasn't  
rained!

With kind regards, and hoping



that Mrs Spencer and my Captious  
little critic will have an enjoyable  
trip.

Yours Ever Sincerely  
J. M. Dyson

Professor W Baldwin Spencer