

Copy of letter from  
Edward Hull Esq - to  
Sir Charles Lyell. Bart.

3 Hamilton Park Terrace.  
Glasgow 23 Jan'y 1869.

"I have attentively considered your reasoning with the assistance of the tracing - and I cannot see any objection to it. There must (I think) have been on the Southside near Chignecto Point a greater elevation by nearly 15,000 feet than at the North-western extremity of the Joggins section - accompanied and followed by proportionate denudation. I don't see any escape from these proportions - though occurring

in only the space of 10 miles -

I have now the Map accompanying Prof. Dawson's new Edit<sup>n</sup> of "Acadian Geology"; and a very admirable mo-

rogram it is - Now although I do not personally know the geology of the country - and therefore to you who have visited it, I speak with all diffidence and openness to correction - it seems to me from a study of the maps - that although there are no flexures in the coalfield of Joggins itself - yet the strata there occupy the position of a segment in a great fold - which has its deepest axis of depression, somewhere about Cumberland Basin - or Shepody Bay, with its corresponding axis of elevation running in a direction due east from Cape Chignecto along the Cobequid Hills. To the south of this line the beds roll over again under Minas Basin.

I see that Dr. Dawson considers the intervening Cobequid Hills as having been an original dividing ridge

during the earlier Carboniferous Period.

This may have been so - and yet this same line of elevation may have become again an axis of elevation at the close of the Carboniferous period. But it is clear that the elevation of the basement beds of the South Joggins Section must have been either along a fault - or an axis of elevation; as far as I can make out there is no dislocation along the edge of the basement beds.

On referring to your Manual, I find the greatest depression marked at the South - and the elevation at the North end of the section. You also make use of these points of the compass in your letter - but I am somewhat puzzled on looking at the Map to

Lzell & Bull

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see the Silurian rocks rising from  
below the coal measures on the south - or  
rather south west side of the section.

With the inferred original folding of  
the Carboniferous beds over the Cobequid  
Dills and the resulting tension - numerous  
fissures must have been produced, which  
would materially assist the process of de-  
hydration both by atmospheric and  
marine agencies.

(Sigs.) Edward Bull.