

Gardner



Park House.

St John's Wood Park.
4th March 79

My dear Sir,

I am much obliged for your letter
respecting my article on the Cretaceous
series -

I had enquired as fully as my
limited knowledge ~~upon~~ the published
works upon the American Cretaceous
series, permitted - In such works
as I consulted I found no evidence
of first rate importance to show that
the Dakota Beds belong to the Middle
Cretaceous ^{period} ~~part~~ of Europe - No Eocene
shells occur in it, it is true, but no

distinctly Middle Cretaceous genera
characterize it. It is Cretaceous, there is
no doubt, for it has not an Eocene
fauna, but there is no positive evidence
that it is contemporary with our Middle
Cretaceous, while the plants & the Vertebrate
evidence are against it, & the invertebrate
evidence inconclusive. The Niobrara group
may be as old as our Chalk, but I
should say is newer, but it also is
Cretaceous. The Fort Pierre group
contains a large percentage of Eocene
forms, while those that are Cretaceous
are unlike ours & probably of a
newer type - e.g. Scaphites. The
Taramie group is certainly Eocene & in
part at least Middle Eocene.

I do not doubt the age of the
Dakota + Niobrara groups being Cretaceous.
I only doubt, I do not affirm, they are
not as old as any of our British Cretaceous
rocks, which, if I may use the expression,
are abruptly truncated, lithologically +
paleontologically. I find, + since I
wrote two new species of cones have been
sent me from our fault, besides portions
of branches — that with a comparatively
+ limited flora, no dicotyledons are found
here — + it seems to me that we should
require absolute evidence that our
floras without dicotyledons are contemporaneous
with other floras with, before we
entirely accept the statements as fact.

I do not think I mentioned before that
I employ, + have done for years, a most
experienced man to collect for me from
the fault alone the whole year round, so
that the results sent me weekly are
extensive — I have also a large series

in some 200 drawers, of Eocene plants
from our coast - so that I have
material for comparison -

I look forward to a copy of your
paper with interest - Believe me

Yours sincerely

J Gardner