



GEOLOGICAL & NATURAL HISTORY SURVEY.

Alfred R. C. Selwyn LL.D., F.R.S., Director.

MUSEUM & OFFICE, SUSSEX ST. OTTAWA.

17 July 1886

My dear Foster,

In case you should not meet with them
I beg call your attention to articles bearing on
same points you discuss, in Geol. Mag. for July
by R. Oldham & Phil. Mag. for same month by
Rev. O. Fisher.

Changes in latitude (& longitude) of portions of
Earth are not only probable but must occur when
mountain making & folding happens. As
Prof. Beckwith says in his new 'Geology' we
know nothing from experience of mountain making
but when this takes place it is evident that
pretty rapid changes of parts of crust in position
must occur. These changes should be away
from areas of unfolded flat rocks of larger
centiments (& probably of sea-beds) It has occurred to
me & may probably have occurred before to others
& received mention that we have a prima facie
evidence of great movement of this kind in the

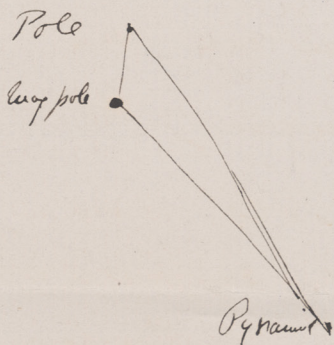
want of Correspondence in position of the ~~axis~~
 Axis of Rotation of the Earth with the magnetic poles.
 The magnetic poles must ultimately depend on position
 as the former & unless the Earth as a whole is
 much less homogeneous in composition than we
 suppose the only reason I can see for the present
 discordance is that the Crust has been slipping
 toward a wrong ~~direction~~ ^{direction} on the Core faster
 than the permanent magnetism induced in
 the ~~Old~~ Crust can accommodate itself to the
 change. In this case a straight line or
 Curve passing ~~from~~ ^{through} the pole & magnetic pole
 would show the last direction of movement
 of the Crust, (making allowance for uncertainty
 due to some differences of composition in
 the Crust which might make the Course of the
 magnetic pole in following the true pole more
 or less flexuous) It may I think be supposed that
 the magnetism of the Earth resides in the cooler
 outer Crust & not in the heated interior.

It is worth noticing in this connection as a
 coincidence that the presumed change in
 the ~~direction~~ ^{bearing} of the pole based on the Great



188

pyramid referred to by Mr. H. H. H. is about 5¹ west of north. That is to say it lay between the present magnetic & true poles, & if the pyramid's position is correct the true pole of today must have shifted since the pyramid was built at least 8 miles on a line joining it to the magnetic pole (to get the approximately exact distance would involve a spherical triangle).



If such changes were uniform they might seem under certain conditions as geological occurrences of time but they may probably be far from uniform though shifting always occurring towards lines of uplift & crumpling. The magnetic pole may have been pushed away from the great flat frontiers of northern Russia & Siberia but then there was the great crumpling on our side which allowed it to come this way

Yours Geop

Neckline
E. M. L. P. H.
H. L. P. H.
- L. M. C.
P. H. L. H.
Th. L.

2/1/18
J. M. L. P. H.
J. M. L. P. H.
J. M. L. P. H.
J. M. L. P. H.
J. M. L. P. H.
J. M. L. P. H.
J. M. L. P. H.

see notes
see II
see III
see IV