

Darwin, C. R. to Pritchard, Charles

12 Oct [1866]

Transcription

Down,

Oct. 12th.

My Dear Mr Pritchard,—

I have read with much interest your sermon, with its appendices, & I thank you sincerely for having sent it me.^{f2}

I should be a very cross-grained man to object to a single word that you have said. You pay me the most elegant compliments, and attack me with much spirit and force. Even if I could you would not thank me for making a long defence; but I may make two remarks. When I refer to the extremely simple eyes of the *articulata* (*i.e.*, insects, spiders, etc.), you translate this into the human eye.^{f3} Should there be a second edition, I hope you will correct this, for I have always spoken of the human eye as the pinnacle of difficulty.

You speak of the necessity of various parts of the eye changing simultaneously in order that it may become adapted for even slightly changed work; but many a short-sighted person can see an object distinctly at a distance which renders the image confused to others.^{f4}

What a very curious case about the increasing length of day!^{f5} I have that profound respect for mathematics which profound ignorance gives, but I cannot help observing that when applied to uncertain subjects, such as geology, it gives as uncertain results as geologists arrive at by other means; for instance, how Thomson and others differ about the thickness of the crust of the earth and the rate of cooling.^{f6}

My son George has been much interested by your sermon, and begs to be very kindly remembered to you.—^{f7}

With my best thanks, pray believe me, yours very sincerely, | Ch. Darwin

That is a very foolish episode of mine about the Wealden, and was struck out
in later editions.^{f8}

Footnotes

f1

The year is established by the relationship between this letter and the letter from Charles Pritchard, 8 October 1866.

f2

The reference is to C. Pritchard 1866 (see letter from Charles Pritchard, 8 October 1866 and n. 1).

f3

Pritchard had misinterpreted a remark from *Origin*, p. 188, in which CD suggested that the change from a simple optic nerve to an eye of any member of the Articulata could be plausibly explained as the result of natural selection. Pritchard assumed CD meant an eye 'as perfect as the human eye' (C. Pritchard 1866, p. 32). CD had expanded his discussion of the possible development of the eye in *Origin* 4th ed., pp. 216--18.

f4

CD noted Pritchard's argument (C. Pritchard 1866, p. 33) in his discussion of the possible incremental steps in the development of the eye in *Variation 2*: 222--3.

f5

CD refers to another argument Pritchard made against Darwinian theory, based on astronomical evidence that the length of a day was constantly increasing (see letter to Charles Lyell, 12 October [1866] and n. 8).

f6

The physicist William Thomson (later Lord Kelvin) had recently calculated the age of the earth based on its cooling from a molten ball. He concluded that the earth could not possibly have existed with its crust in a similar state as at present for the length of time proposed by geologists (W. Thomson 1865).

f7

George Howard Darwin had been a student at Clapham Grammar School while Pritchard was headmaster there (see letter from Charles Pritchard, 8 October 1866 and n. 5).

f8

In *Origin*, p. 287, CD had written that the denudation of the Wealden district in Kent took longer than 300 million years. In response to criticism, he revised his estimate downwards to 150 or 100 million years in *Origin* 2d ed., p. 287. No reference was made to the Wealden in the third or later editions of *Origin* (see Peckham ed. 1959, pp. 483--4). See also *Correspondence* vol. 12, letter from A. C. Ramsay, 10 July 1864 and n. 3.