

*Les Vieux Arbres de La Normandie.* By Henri Gadeau de Kerville. Fasc. iv. Pp. 219 + 352. (Paris: J. B. Baillière et fils, 1899.)

THIS instalment of M. de Kerville's careful monograph contains twenty views of trees from photographs by the author, accompanied by detailed descriptions and historical notes. The work is well and conscientiously done, whilst the illustrations are well selected and admirably reproduced in collotype. The trees here shown include ten oaks, six yews, two beeches, a lime and a poplar. As the photographs of the deciduous trees have been taken in very early spring, before the opening of the buds, their ramification and general architecture are shown to the greatest advantage. With this volume, *à propos* of a notable oak-tree growing at Isigny-le-Buat, the author includes an interesting account of recorded cases of mistletoe upon oaks in Normandy. He is able to produce evidence in support of some twenty-seven recorded instances. The book will appeal to all tree-lovers; may it stimulate some to similar studies. We remember to have seen something of the kind for Northumberland nearly thirty years ago in the *Transactions* of the Tyne-side Naturalists' Field Club.

LETTERS TO THE EDITOR.

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The Nature of the Solar Corona.

I SEE in the recently-published number of *Science Abstracts*, No. 802, that there is every reason to think that the corona line is not represented by any dark line in the solar spectrum. I write to call attention to the way this confirms the suggestion that the corona is an aurora round the sun. In the March number of the *Annalen der Physik* for this year, p. 462, Herr Cantor describes experiments from which he concludes that there is no absorption corresponding to the emission of light by a gas which is caused to radiate by an electric discharge. He makes certain deductions as to the temperature of the gas which emphasise the difficulty of defining "temperature" in the case of a non-steady state; but, whatever is to be deduced from his observation, it certainly lends weight to the suggestion that the corona is due to an emission of a similar character to that of a gas transmitting an electric discharge.

April 30.

GEO. FRAS. FITZGERALD.

Rock-structures in the Isle of Man and in South Tyrol.

MR. LAMPLUGH'S recent paper referred to in his letter in *NATURE* of April 26 (p. 612) is devoted to an elucidation of the "relations of the Carboniferous limestone to the Carboniferous volcanic rocks" in the Isle of Man (*Q.J.G.S.* 1900, p. 11). From Mr. Lamplugh's description, these relations are very similar to the relations which I described as subsisting between the Mid-Triassic dolomitic limestone ("Mendola Dolomite") and the tuffaceous "Wengen" beds of Enneberg. The "Buchenstein Agglomerate" of Enneberg, which I mentioned in my letter (*NATURE*, March 22), had been described in geological literature as a "Middle Triassic agglomerate" of local occurrence above "Mendola Dolomite," in the neighbourhood of eruptive outbursts of that age. My map and sections showed that the agglomerate had a limited occurrence in fault-zones and overthrust-planes where differential movement had taken place between the harder, more resisting "Mendola Dolomite" and the yielding, mixed "Wengen" series "comprising dust-tuffs and lavas, as well as fossiliferous shales and shaly limestones." I therefore explained the so-called "Triassic" agglomerate as a subsequent structure, of the nature of a shear-breccia, produced by the earth-movements of the later Alpine upheaval (*Q.J.G.S.* 1899, pp. 567, 584, Figs. 1, 4, 9, 10).

Mr. Lamplugh describes in the Carboniferous series of the Isle of Man rock-structures of brecciated limestone, tuffs with contained strips of limestone, and coarse agglomerate which had previously been referred to the effects of Carboniferous eruptive

action. Mr. Lamplugh's explanation is that the various complexities in the structure of these rocks "have not been caused by the volcanic outburst, but have been brought about at a later date by the differential movement of segments of the eruptive rocks upon their original floor of limestone" (*Q.J.G.S.* pp. 15, 19, Figs. 3, 4). The parallelism between the two cases is self-evident. In 1894, I had explained on precisely the same principle of subsequent differential movement, the occurrence of certain anomalous phenomena at the upper limit of the Wengen-Cassian series in Enneberg, *i.e.* the limit of this plastic and compressible series against the higher horizon of Triassic calcareo-dolomitic rock, termed "Schlern Dolomite" ("Coral in the Dolomites," *Geol. Mag.* 1894, p. 55).

The parallelism in the general sequence of events in the Isle of Man and in South Tyrol is as follows:—

<i>Isle of Man.</i>	<i>Enneberg.</i>
Pre-Carboniferous Movement.	Pre-Triassic Movement.
Lower Carboniferous Deposition.	Triassic Deposition.
Subsequent Movement.	Subsequent Movement.

The crust-movement immediately antecedent to Triassic deposition in South Tyrol was that which accomplished the upheaval of the Permian Alps, post-Triassic crust-movement culminated in the upheaval of the present Alps (aut. *Q.J.G.S.* 1899, p. 628, and *NATURE*, Sept. 7, 1899, pp. 445-6).

The farther issues of my paper in showing how differential movements twist the rocks by taking place in cross-directions were not touched in my letter of March 22, for the reason that Mr. Lamplugh did not in his paper enter into the torsional results of differential movements. But, as I have elsewhere expressed, rock-torsion or "warping" goes on all the time in crust-folding, and clearly, where from any cause whatsoever there is the greatest complexity in the differential movements, there will be the greatest complexity in the torsional phenomena.

MARIA M. OGILVIE GORDON.

POMPEII AND ITS REMAINS.<sup>1</sup>

THE city of Pompeii is one which will ever maintain a hold upon the imagination of cultured man, as much for what it represented in the history of civilisation, as for being the victim of one of the most awful visitations of the powers of nature which have ever befallen the abiding place of a great society of men. It is not the place here to descant upon the wealth and luxury of its

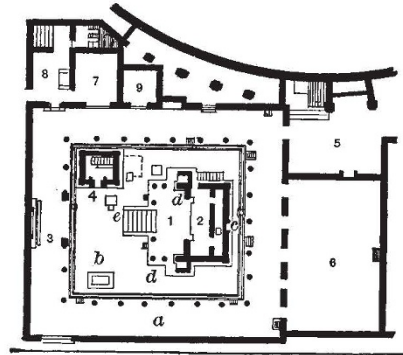


FIG. 1.—Plan of the Temple of Isis.

- 1, Portico; 2, cella; 3, shrine of Harpocrates; 4, purgatorium; 5, hall of initiation; 6, hall of mysteries; 7, 8, 9, abodes of priests; a, colonnade; b, refuse pit; c, niche for statue of Bacchus; d, d', niches; e, large altar.

inhabitants, on the bright and reckless lives which they led, on the splendour of its buildings, or even the fancied security wherein men and women lulled themselves, notwithstanding the violent shock of earthquake which shook the city to its very foundations on February 5, A.D. 63, for all these things are the commonplaces of history; but we are concerned with the remains left by the awful catastrophe which took place on August 24,

<sup>1</sup> "Pompeii, its Life and Art." By August Mau. Translated by F. W. Kelsey. Pp. xxii + 509. (New York: The Macmillan Co., 1899.)