

## Rev. Thomas Brown, D.D. By Professor Duns, D.D.

(Read March 19, 1894.)

Thomas Brown was born on the 23rd of April 1811, in the manse of Langton, Berwickshire, of which parish his father, the Rev. John Brown, D.D., was minister. Mr Brown entered the University of Edinburgh in 1826, and, at the close of his Arts course, was enrolled as a student of divinity. His academical record was that of an able and diligent student, who gave himself earnestly to the work of the classes, and took a lively interest in more than one university debating society. Mr Brown was licensed as a probationer of the Church of Scotland in 1835, and in 1837 was settled as parish minister of Kineff, Presbytery of Fordoun, Aberdeenshire. At the Disruption of the Church in 1843, Mr Brown joined the ministers and laymen who then formed the Free Church. In 1848 he was married to Miss Wood, a member of an old and well-known Edinburgh family.\* In 1849 he accepted a call to be minister of the Dean Free Church, Edinburgh, and in this position made thorough proof of a ministry solid, full of instruction, and withal attractive.

Mr Brown was elected a Fellow of this Society in 1861. In

\* On her father's side, Miss Wood was connected with the Woods of War-riston, and on her mother's with those of Largo. Towards the opening of the present century, the former was represented by a popular physician, whose figures in Kay's Edinburgh Portraits as "Lang Sandy Wood," but was also known by a kindlier name. In a clever parody of "Childe Harold," which appeared in *Blackwood*, May 1818, beginning, "I stood, Edina, on thy Bridge of Sighs," we have the following lines:—

"Munro once ruled and Gregory now reigns;  
George Bell now feels the pulse which John Bell felt.  
Dispensaries, infirmaries, and chains  
Purge, slash, and clank, where'er the cities belt  
Girdles it in—a space that may be smelt!  
So we go on, I fear to little good,  
Meanwhile the rivals one another pelt!  
Oh for one hour of him who knew no feud,  
The octogenarian chief, the kind old Sandy Wood!"

It's pleasant to gather up any separate link like this, and give it a place in the genealogical chain.

1888 he received the degree of Doctor of Divinity from the University of Edinburgh. In 1890 he was called to the Moderator's Chair of the Free Church General Assembly, which he occupied with dignity, and with much satisfaction to the Church. Dr Brown died on the 4th of April 1893. Two sons survive him—J. Graham Brown, Esq., M.D., and J. Wood Brown, M.A., minister of the Free Church, Gordon, Berwickshire. His brother, Sir John Campbell Brown, K.C.B., a highly distinguished member of the Indian Medical Service, predeceased him.

Let this bald and rapid enumeration of the leading family and public steps in Dr Brown's life serve as introductory to what, in the obituary notice for the *Proceedings* of the Society, is of chief interest. I refer, mainly, to the records of the work he has done as one of its Fellows. This work may be looked at under three divisions:—Geology, Botany, and Literature.

I. *Geology.*—In comparatively few districts of lowland Scotland could a youth with an inborn bent towards natural science have found fuller scope for observation and research than in that part of Berwickshire in which Brown was born, and in which he spent his youth. The environments do not make the man, or determine his tastes, but much of a life depends on correspondence between natural bent and surroundings. The latter is ever at hand to develop, to cherish, and to strengthen, without perfectly satisfying, the former, and thus to allure to ever higher effort. The geological and botanical features of Langton parish, and other neighbouring parishes, are full of interest. Within little more than a gunshot from the manse, the Lower Carboniferous strata crop out in the Langton Burn course, with their embedded ichthyolites and remains of plants. In the same burn course are strata which seem to mark the meeting-place of the Carboniferous and the Old Red Sandstone, while, in near localities, are shales and clays yielding remains of other plants, mollusca, and fishes. And by a walk of a few miles he could reach what Hugh Miller describes as "The deep belt of Red Sandstone which leans to the south (in the valley of the Whiteadder) against the graywacke of the Lammermoors."

While avoiding details, it seems to me that a brief statement of the character and scope of his chief contributions to geology appropriately fits into this sketch of his life and work.

1860. His first paper is singularly free from the defects which generally characterise first attempts in the literature of any branch of science. It is entitled, "Notes on the Mountain Limestone and Lower Carboniferous Rocks of the Fifeshire Coast from Burntisland to St Andrews." This paper was read in April 1860, and printed in volume xxii. of the *Transactions*. Mr Brown had gone to Elie in the autumn of 1856 for a few weeks' rest, and, he says, was induced to pay some attention to the geology of the district, resuming, for a brief interval, what was once a favourite pursuit. His ever active habit of the eye had its reward. A thin bed of limestone, dipping inland from the shore, caught his attention. Ichthyolite, molluscan, and crustacean remains were found in it, and as some of these were well-known Irish forms, they raised the question,—May not this bed of limestone synchronise with the Irish series in which these forms occur? Mr Brown felt he had broken new ground here, because neither M'Laren, nor Landale, nor Anderson, who had worked much in the neighbourhood, had referred to it. He resolved, in the face of many difficulties, to work it out, and for several years devoted his autumn leisure to this. He succeeded, both from the stratigraphical and palæontological points of view.

1863. "On a Clay Deposit, with Fossil Arctic Shells, recently observed in the Basin of the Forth." This bed of clay was discovered, and the attention of geologists first called to it, by Mr Brown. It was specially interesting to him at the time as, he thought, indicating the former existence in Scotland of an Arctic climate—the shells found in it being for the most part exclusively Arctic, and several of them new to British glacial deposits. He believed, moreover, that the stratigraphical position of this bed warranted the inference of a considerable rise throughout the whole seaboard of the Forth.

1864. "Notice of Glacial Clay, with Arctic Shells, near Errol, on the Tay." The shells in the Errol brick-clay were found to be identical with those at Elie. The area within which these shells occur thus became greatly enlarged, and, as he thought, it also favoured his theory touching the rise of the land.

1874. "On the Parallel Roads of Glenroy," Lochaber. The subject has proved a tempting one to students of quaternary deposits. The theories of their formation were mainly three:—(1)

The Macculloch, Dick-Lauder, Milne-Home theory—the glen once the site of a lake ; (2) The Darwin, Nicol, R. Chambers theory—the terraces mark the level of an arm of the sea at three different periods ; and (3) The Agassiz, Buckland, (Mr) Jamieson theory—glacier lake ; the glacier, melting at three widely separated periods, left the marks of this in the terraces.

Dr Brown approached the problem from a new (the biotic) point of view. That the deposits contain no shells was accounted for by Darwin alleging that the carbonic acid gas in the rain-water had destroyed the shells. Mr Brown, remembering that the so-called shells of diatoms, being siliceous, would not be destroyed by this gas, resolved to search for diatoms in the terrace deposits, and diatoms were found which Professor Dickie of Aberdeen, an acknowledged authority, identified as fresh-water species. This seemed to favour the first theory just mentioned. It might, indeed, be asked, Were the data sufficient to warrant the inference ? Whatever answer may be given, we are indebted to Mr Brown for the introduction of this new element into these discussions.

1876. Perhaps Mr Brown is seen at his scientific best in the paper “On the Old River Terraces of the Earn and Teith, viewed in Connection with Certain Proofs of the Antiquity of Man,” read before the Society in the beginning of 1876, and printed in vol. xxvi. of the *Transactions*. Before noticing the leading characteristics of this paper, I may refer to the circumstances which led to it, and, specially, to the introduction of the speculative element in dealing with Physical Geology phenomena. In 1838 M. Boucher de Perthes, Abbeville, France, published his now well-known book, *De la Création*, in which he expressed the belief that he would find traces of primeval man in the fluvial gravels of the Somme. In 1846, in another work entitled *De l'Industrie Primitive, ou les Arts et leur Origine*, he intimated that his anticipations had been fulfilled, and in 1847 his *Antiquités Celtique et Antédiluviennne* appeared, giving great prominence to his discoveries in these river gravels. For years little or no interest was taken in his works. But about 1860 the attention of geologists, biologists, and archaeologists was fixed on them, and a great controversy arose, in which the giants of the time—Murchison, Lyell, Falconer, Carpenter, and others—were conspicuous. The crucial inquiry came

to be, "How was this valley formed?" Lyell thought that "river erosion" will account for most of the phenomena, but added, "I should infer considerable oscillations in the level of the land in that part of France." Murchison took up the same position, but claimed for the phenomena the action of much stronger and intenser forces than Lyell associated with them. In a word, the interest taken in the alleged facts and their discussion was because of the violent contradiction they seemed to give to the prevailing notions as to the time man had been on the earth. That Mr Brown had felt the influence of all this is clear from the summing-up of the results of his observations in the valleys of the Earn, the Teith, and the Spey. As I was myself much interested in the questions raised, I visited the valley of the Somme just when the discussions were at white heat; and when this paper was read, I had an impression that, had Mr Brown spent a few weeks in Abbeville and its neighbourhood, he would not have tried so earnestly to make good an alleged analogy between the formation of our Scottish river valleys and those of England and France. There are proofs of oscillations within the area over which the Somme gravels are spread, to which there is nothing analogous in the gravels of the Earn and the Teith. But all this by the way; and apart from all this, Mr Brown's paper bears in every page the marks of thoroughly scientific work—marks which come out in the careful examination of the valleys, the determination of the relations of the terraces, their levels above the river-beds, and their geological sequence as deposits begun at the close of a glacial period. Then, he argues, came the kames or escars, and last, the collection of the old gravels of which the river floods formed the terraces. Reference is made to the old river terraces of the Spey in support of the Earn and Teith inferences, and, it is asked, how are we to explain the action of the river in throwing up deposits 60 or 80 feet? The answer is, either by floods sufficient to raise the channels to that height, or by supposing the bed of the stream to have been formerly at a higher level than now. Mr Brown pleads in behalf of the former.

The value of these papers on the geology of the surface cannot well be over-estimated. They present, in a most lucid and thoroughly scientific way, questions which still occupy the attention of geologists. If we are ever to have a trustworthy scheme of

the order of superposition of quarternary deposits, and a biotic scheme co-ordinate with that of superposition, they are likely to result from such careful observation and orderly records of relation and sequence as distinguish Dr Brown's labours in this department.

II. *Botanical Studies.*—Botany was Dr Brown's earliest and favourite study. Langton and its environments presented a rich gathering ground. The parish lies partly in the Lammermoors and partly in the well-cultivated fields of the Merse. Moor and moss, hill and dale, and the wild-wooded valley through which Langton burn flows, were all that a young enthusiastic botanist could desire. In 1834 he prepared the notice of the botany of the district for the "New Statistical Account." Among the forms mentioned as "lately discovered" is *Saxifraga hirculus*, Dr Johnston's reference to which, in his *Natural History of the Eastern Borders*, is as follows:—"S. hirculus. In a wet moorish spot near Langton wood, plentiful, Rev. Thomas Brown, who had the good fortune to add this beautiful species to the Flora of Scotland." When Dr Brown was called to occupy the position of President of the Berwickshire Naturalists' Club, during its jubilee year, 1881, he referred to this in his interesting address. "I remember well," he said, "the enthusiasm with which Dr Johnston welcomed and submitted to the club the little saxifrage from the Langton Lees, and the *Anthoceros punctatus* from the fields of Gavinton—both at the time new to the Flora of Scotland." We have clear proof, in the same address, that, in his botanical studies, he had much more in view than the mere gathering of plants and the attainment of expertness in *hortus siccus* terminology. It was the living form which specially interested him—its relations to other forms, its surroundings, its use, the use of its beauty, and many such-like elements associated with place, and habits, and appearance and structure. The numerous references to him in Dr Johnston's work show how thoroughly he had mastered the botany of his native district.

III. *Literature.*—Dr Brown's work in this department was mainly —(a) Biographical, and (b) Historical. Or, perhaps, it would be better to say that it was history from the biographical point of view. In a general way, this may be affirmed of both of his works—*Annals of the Disruption*, and *Church and State in Scotland*.

But, as the subjects dealt with in them lie outside of those chiefly dealt with in this Society, I do little more than name them, in order that the record of Dr Brown's work, all round, may be as full as possible. In the *Annals* he sought to do for the Disruption men something analogous to what Dr Calamy did for the 17th century Nonconformists in his *Nonconformist's Memorial*, but, both in subject-matter, in style, and in the gift of supplying a setting for dry ecclesiastical details and incidents by associating them with phases of social, domestic, or religious life, which are ever fresh and interesting, the *Annals* take the foremost place. The goodly volume on *Church and State in Scotland* consists of six lectures delivered by Dr Brown as "Chalmers Lecturer." I may state that, in 1880, Robert Macfie, Esq., of Airds and Oban, transferred £5000 to trustees for the founding of this lectureship in memory of Dr Chalmers, and in connection with the Free Church. I heard all Dr Brown's lectures, and was struck with their clear, crisp style, graphic descriptions, and wide-minded appreciation of praiseworthy points, irrespective altogether of party considerations.

In the foregoing notes little has been said of his work as a Christian minister, though it was in this that his best qualities found highest expression. His friends love to say that, had he devoted his time to scientific pursuits, he might have taken a distinguished place among men of science. But the fact that all the points of his individuality fell so well into the profession of his choice makes this doubtful. It was in fulfilling the life-work to which he was set apart, that his quiet gentlemanly bearing, cultivated mien, extensive yet accurate knowledge of books and of men, his ever thoughtful consideration for the opinions of those from whom he differed, and his ready though never obtrusive exercise of the charity that suffereth long and is kind, were signally manifested. Unlike so many of his class, he had qualified himself to read both branches of the one revelation of God to man, and had found in Nature not only a revelation but a mental discipline also: "Homo, naturæ minister et interpres, tantum facit et intelligit, quantum de naturæ ordine re vel mente observaverit; nec amplius scit aut potest."—BACON, *Nov. Org.*, Aph. i.