

Edinburgh January 1807

Everything here, my dearest Father, goes on as smoothly & pleasantly as usual. Perhaps it may be rather premature to say, that in an Edinburgh life, satiety does not succeed to the cessation of novelty; but I feel firmly persuaded that in my instance at least, this will not be the case. The pleasure derived from a scientific & highly cultivated society is not transient in its nature; and if such a society does exist in any part of the world, it surely is in Edinburgh. The gratification, too, arising from the study of my profession, is not likely to meet with any abatement; its progress at present is wonderfully rapid. Here indeed there is no cessation of novelty; new objects and new ideas are every day coming before my mind; and opening out new topics of thought, new sources of mental action_ But to proceed from declamation to detail. The last meeting of the Medical Society was by far the most interesting, at which I have hitherto been present. I believe I told you in my last letter that we were to have a paper from D^r Ogilby on the comparative merits of the Huttonian¹ and Wernerian² theories of the earth. Playfair's³ excellent work in support of the ~~former~~ of the former of these theories, has had a considerable influence in directing the attention of the Edinburghians to the subject, as well as in determining their opinions on the question. Murray the lecturer on Chemistry, and D^r Ogilby are, I believe, the only decided supporters of the Neptunian doctrine in the place; the former, however, is in himself a bulwark, from his acknowledged superiority of intellect, from his excellence as a speaker, and from the attention which he has bestowed upon this particular subject. The report that the question was to be discussed in the Medical Society quickly circulated through Edinburgh, and on the night of meeting the crowd of strangers was so great that many of the m were unable to procure seats, though the room is large, and several supplementary benches were brought forwards on the occasion. Among the visitors we had Sir James Hall⁴, and Lord Webb-Seymour⁵, both staunch abettors of the Huttonian doctrine. You have probably heard of the astonishing experiments of the former gentleman, published, I believe, in the Edinburgh Transactions. It had previously been found impossible by the most intense heat with which we

¹ James Hutton (1726–1797), Scottish geologist, physician, chemical manufacturer, naturalist, and experimental agriculturalist.

² Abraham Gottlob Werner (1749–1817), German geologist.

³ John Playfair (1748–1819), Church of Scotland minister, scientist, mathematician, and professor of natural philosophy at the University of Edinburgh.

⁴ Sir James Hall of Dunglass, 4th Baronet (1761–1832), Scottish geologist and geophysicist.

⁵ John Webb Seymour, Lord Webb Seymour (1777–1819), English aristocrat and amateur geologist.

are acquainted to fuse marble, chalk, or coal; Sir J. Hall succeeded in all these three operations, by the simultaneous application of a powerful pressure, so as to prevent the decomposition arising from the separation, by heat, of the volatile constituents of these substances. The effect was produced by a heat not greatly exceeding 2000° of Fahrenheit; while without a concomitant pressure, 150° of Wedgewood's pyrometer, or more than 20,000° of Fahrenheit were incompetent to effect such a fusion. These experiments are favourable to the Huttonian theory by demonstrating what D^r Hutton had started as an hypothesis, that the action of heat is capable of undergoing the most extensive modifications from pressure. But to return to the Medical Society. This meeting presented by much the most brilliant assemblage of talent, we have had this winter. Professor Playfair had proposed, I understand, being present at the discussion, but was prevented by indisposition; this is a circumstance I feel much disposed to regret, though at the same time I think it improbable he would have spoken on the occasion. M^{rs} Thomson was the only one [?]

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Professors who was present. The first paper of the evening, by M^r Pigott, was on Bronchocele⁶; its principal merit was that of brevity; in fact, the author appears to be a man very far removed from brilliance ^of talent. A short discussion ensued, principally carried on between Thomson the President & D^r Saunders, on the use of the muriate⁷ of lime in this disease; the former questioning its utility, the latter asserting it in very dogmatical terms. D^r Ogilby's paper succeeded, read by D^r Gordon who was President for the evening; it was well written, and displayed much ability, but was ?persuaded by a degree of acrimony, & contempt for those of an opposite opinion, by no means consistent with the nature of the subject, on the true principles of philosophical discussion. This acrimony was displayed in the epithets which he bestowed on the supporters of the Huttonian theory; the use of which epithets I was disposed particularly to regret on the present occasion, from the presence of so many individuals to whom they ^were^ would be applicable. The papers bore internal evidence indeed, that at the time of writing it, D^r Ogilby could not have been aware that Sir J. Hall would have presented himself at the discussion; otherwise the expressions which he used, betrayed a mind gross and indelicate in the extreme. D^r Nugent was the first who spoke after the reading of the paper. He adopted the Huttonian side of the question, and in a speech of some length brought forward the general & most striking objection to the Wernerian theory of the earth. He was answered by

⁶ A swelling of the thyroid gland; goitre [OED].

⁷ A salt of muriatic (hydrochloric) acid; a chloride [OED].

D^r Ogilby, though in a manner which appeared to me by no means satisfactory. Sir J. Hall then rose, and requested that the part of the paper which referred to him, might be read over again from the Chair. This being done, he made a short but neat speech, enforcing the important reference which his experiments had to the ^establishment of the^ general principles of the Huttonian theory: his stile of

speaking is not striking or energetic; but gentlemanly, and to the purpose. D^r Ogilby rose in reply & contended that Sir J. Hall's experiments did not remove any of the general objections to the theory of Hutton; I cannot, however, detail his argument without entering into the minutiae of the question which would occupy much too large a portion of my sheet. D^r Saunders (who cannot bear to listen to a discussion without making himself a party concerned) then got upon his legs, and in a long tedious speech levelled indiscriminate abuse against both ^the^ theories which had been brought forward, asserting that they were both exposed to numerous & insurmountable objections. I confess for my own part, I am strongly inclined to coincide in this sentiment; of the two, I think Hutton's theory the more plausible; but at the same time, it appears to me that there are difficulties connected with it, which even the genius of a Playfair cannot surmount. I know not indeed whether in the present state of our geological knowledge, we are warranted in forming any conclusions so general as those involved in the theories in question. D^r Nugent rose after D^r Saunders, to answer the objections which the latter had thrown out against the Huttonian theory; but here my account of the discussion must cease, as I was not longer present at it myself. This is a circumstance which may perhaps somewhat surprise you; but your astonishment will be diminished when I tell you the motive which induced me to absent myself from the remainder of the debate. The fact was that I had received an invitation to supper at M^{rs} Flecter's, to meet Professors Young & Mylne from Glasgow, and Miss Hamilton the authoress. This temptation I could not resist; though the motives which urged me to remain at the Medical Society were by no means of a trivial nature; indeed had Murray entered sooner

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into the discussion, I know not whether they would not have preponderated. The remainder of the debate was, according to the information of Travers, still more interesting than the part which I had been present. Murray made a long speech in defence of the Wernerian theory, in which he displayed all that ingenuity of argument, excellence of illustration, and luminousness of arrangement for which he is so peculiarly remarkable. Sir James Hall spoke again two or three times

in the course of the evening, but not being gifted with the same oratorical qualifications as Murray the Anti-Huttonians came off upon the whole victorious. Lord W. Seymour did not take any part in the discussion_. You may readily suppose that I passed a pleasant evening at M^r Fletcher's. I had the good fortune to be seated next to Miss Hamilton, with whom I was much pleased; she is a woman of about 50, plain externally, but evidently possessing a very superior mind; her conversation is lively, entertaining, and entirely devoid of literary affectation. M^r W. Henry was one of the party; he is intimately acquainted with Miss Hamilton, and is extremely partial to her.

My College business goes on much as usual. I yesterday heard for the first time a lecture from D^r Monro Sen^r; he leaves the greater part of the course to the management of his son, coming down only on extraordinary occasions. The demonstration of the brain he has always reserved to himself, and this was the occasion of his then honouring us with his presence. In good [truth I] felt strongly inclined to wish that he had staid away; for a merer shadow of a demons[tration] I never [w]itnessed. From the hurried manner in which he pushed round the dissection [table] one would have supposed he was doing it for a wager; no one individual present had the slightest opportunity of observing the parts; this was the more mortifying to me, as I had submitted to half an hour's squeezing ^in^ the crowd for the sake of obtaining a front seat. The brain was an excellent one for demonstration, being that of a woman who was hanged the day before for the murder of her husband. Dr Barclay gave us his demonstration of ?this part about a week ago, trying our anatomical perseverance by a sitting of four hours. It was certainly much superior to D^r Munro's, though he had very inferior materials to work upon._ Murray's lecture on Pharmacy commence in the course of a fortnight or three weeks. I expect to derived much advantage from our attendance on them; as he exhibits all the articles in the Materia Medica, and their modes of preparation. W. Henry introduced me to him a few days ago, and since that time I have been present at some experiments which they made together in Eudiometry⁸. Murray is now engaged in publishing a System of Chemistry, which will probably be the most complete work on the subject that has hitherto appeared. It will be in four very thick octavo volumes. Two of these are already published, and have excited much attention & admiration, as well from the excellence of the ?stile, as from the clear and lucid view which they give of the general doctrines of Chemistry. The 1st volume contains what was a desideration in chemical science, a perspicuous & connected exposition of the novel

⁸ The art or practice of using the eudiometer either for ascertaining the purity of the air, or in the analysis of gases [OED].

& important doctrines of Berthollet⁹ on the subject of affinity. It becomes now however as dangerous to publish a System of Chemistry as a map of Europe. Ever since these two volumes of Murray's made their appearance, experiments have been instituted which bid fair to ??

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out a new aera in the science. Davy¹⁰ has discovered that Chemical affinity may be referred entirely to the operation of the electric fluid; that affinity is in no instance exerted between two substances unless these are in opposite states of electricity; reverse either of these states so as to make both substances positive or negative, and you destroy their affinity. The particulars of the experiments are not yet known, but will probably soon be published. _ W. Henry left Edinburgh last Tuesday morning for Carlisle, whence he would proceed directly to Manchester; he has promised to exert himself in the recovery of my box. He had not an opportunity of seeing M^r Geddes¹¹ before his departure; but he has left the cobalt & a letter for M^r G. with me, which I shall deliver the first day I have time to walk down to Leith. I am surprised at not having heard from Newcastle, as I wrote to M^r Turner some time ago to request he would make enquiries about my box. ~~xxx xxx xxx~~
~~xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx~~ I fully expect a letter today or tomorrow.

[Mr Holland
Knutsford
Cheshire]

I dined a few days ago with M^r Grahame the poet, or as he is here usually called Sabbath Grahame¹². The only person I met there was Thomson¹³, the correspondent of Burns; he is a lively, agreeable man. I have not yet heard any thing from Dugald Stewart¹⁴. _ I was grieved to hear through the medium of W. Henry, that M^{rs} Greg still continued to be very much of an invalid. Pray tell me how she is when you next write. I hope you all keep well at home. Give my dear love to my Aunt, & Sisters, and my Sandlebridge friends. With the most sincere wishes for you health, believe me to be, my dearest

⁹ Claude Louis Berthollet (1748–1822), Savoyard-French chemist.

¹⁰ Sir Humphry Davy (1778–1829), Cornish chemist and inventor.

¹¹ Possibly Andrew Geddes (1783–1844), Scottish portrait painter and etcher.

¹² Rev James Grahame (1765–1811), Scottish poet whose works included *The Sabbath* (1804).

¹³ Possibly James Thomson (1763–1832), Scottish weaver poet.

¹⁴ Dugald Stewart (1753–1828), Scottish philosopher and mathematician.

Father, your truly affectionate Son.

Henry Holland.

January 9th 1807

P.S. I suppose you have before this time sent the Report up to London. I am anxious to know whether the B. of Agriculture will approve of it.