

Lothian, another of the band of 1799-1800, was perhaps a more important adherent of Hutton than was even Playfair. Hall made experiments upon the actual effects of heat on rocks and minerals, particularly basalt. He studied the behaviour and properties of these substances in the molten state, thus confirming Hutton's conclusions in a remarkable manner. His experiments were reported to the Royal Society of Edinburgh. Hall, who was born in 1761 and died in 1832, had at one time studied military science at Brienne where a fellow student of his was the future Emperor Napoleon I. In 1812 Hall was elected President of the Royal Society of Edinburgh and held office until 1820 when he was succeeded by none other than Sir Walter Scott. The well-known traveller, Captain Basil Hall, R.N. was the second son of Sir James of Dunglass.

The physical sciences lead us to Sir John Leslie (1766-1832) Professor of Mathematics in 1805 and of Natural Philosophy in 1819. His name is as well known in the science of Heat as is Hutton's in Geology, for Leslie's researches with the differential thermometer he had invented, and the production of cold by evaporation which he discovered, gave him European fame. Leslie's work on radiant heat, on photometry and on hygrometry is all classical. He was the first to achieve artificial congelation of water by the evaporation of sulphuric acid in a vacuum. In spite of these fundamental researches in the Science of Heat, for which he received the Rumford medal, Leslie was wrong and Wells right on the causes of the formation of dew; and he believed to the last in the objective existence of cold. In early life Leslie travelled both in America and on the continent of Europe. His personal friends included Adam Smith, author of "The Wealth of Nations", a treatise which created the science of political economy, Wedgewood the potter, and the

celebrated Thomas Young. Sir John's appointment to the chair of Mathematics was bitterly opposed by the clergy who detected heterodoxy in Leslie's having quoted something of David Hume on cause and effect. But Leslie was not a lucid expositor even of his own views. On the recommendation of Lord Brougham, Leslie was knighted by King William IV in 1832, at the close of which year he died.

Although Sir David Brewster at the turn of the century was only nineteen years old, still it would not be right to exclude him from the scientific section of Edinburgh Society, for at this time he was a student at the University. By 1807 Brewster had contested the chair of Mathematics at the University of St. Andrews; and possibly his being unsuccessful in his candidature led him into a career of greater eminence than if at twenty-six he had settled down for life in a University at that time not distinguished for its devotion to pure science. David Brewster was destined to do for the science of optics what Black had done for chemistry, Hutton for geology and Leslie for heat. He invented certain prisms for light-houses, the refracting stereoscope and the kaleidoscope, besides making many valuable additions to mathematical optics. He coined the phrase, "to be colour blind". He also was knighted in 1832; successively Principal of St. Andrews and of Edinburgh University, Brewster became President of the British Association in 1850.

Hitherto the sciences represented have been the physical and the chemical, but biological science was not to go without its exponent. The second Monro, the worthy occupant of the chair of Anatomy from 1759 to 1808 was more than merely a-descriptive Anatomist. He studied Comparative Anatomy with great success, and was a pioneer investigator into the human nervous system in the nomenclature of which his name is embedded as the