Haughton, Samuel (1821–1897)

Haughton, Samuel (1821–1897), zoologist and physician, was born on 21 December 1821 in Carlow, Ireland, the second of three sons of Samuel Haughton (1786–1862), mechanic, and his wife, Sarah (d. 1854), who was the daughter of John Hancock, a linen merchant from Lisburn. The Haughton family was descended from a Quaker family established in Ireland during the Cromwellian settlements. Samuel was brought up within the Church of Ireland, as his father had withdrawn from active membership of the Society of Friends at the time of his marriage, but his upbringing undeniably reflected the Quaker tradition to which so many of his relatives and close family friends adhered. Growing up in the Carlow countryside, in the fertile and attractive valley of the River Barrow, stimulated his interest in natural history and the environment; this was further encouraged by the local rector, whose school in Carlow he had attended.

Haughton entered Trinity College, Dublin, in 1839. He studied mathematics, obtaining a gold medal in 1843, and was elected to fellowship the following year. The fellowship examination was a formidable one and it was quite unusual to succeed, as Haughton did when he was only twenty-one, at the first attempt. His early scientific work was in mathematical physics. A paper entitled ‘On the laws of equilibrium and motion of solid and fluid bodies’, published in the Cambridge and Dublin Mathematical Journal in 1844, won him the Cunningham medal of the Royal Irish Academy and published various other papers on fluid dynamics and wave propagation. From his teacher and colleague James MacCullagh he had also acquired an interest in the refraction of light within crystalline media. This led him to a wider interest in microscopy and it was presumably on the basis of this that he was deemed eligible for appointment to the chair of geology which he vacated in 1855. He was professor for thirty years until he was required to resign on becoming a senior fellow in 1881. Throughout that time he was in demand in promoting and developing his subject.

Haughton’s geological work encompassed a wide span including aspects of regional geology, stratigraphy, palaeontology, mineralogy, petrology, and structural geology. He calculated the age of the earth on the basis of sublimary thicknesses and estimated rates of deposition. His first results suggested about 2000 million years but he revised the calculated age in 1890 to about 1000 million years. With G. F. Darwin he calculated the costs of the build up of rock layers by investigating craters on the moon. In doing so he derived a formula for the length of drop as a function of the weight of the unfortunate ‘patient’ (as the doomed individual is described in the paper). The scientific interest in the vertebrates went hand in hand with a genuine affection for animals. He was a keen collector of fossils, drawing conclusions from this about rock development, and carried out chemical rock analyses. He established the Trinity Mining Company, which in 1856 opened a copper mine in Athlone in Co. Meath, but this venture was not a commercial success.

In 1859 Haughton, although by that time well established as a professor and a scientist of recognized standing, chose to become a medical student in order to pursue a more practical application of his skills. While still retaining his fellowship and his chair, he attended the Trinity medical course for three years, graduating MB in 1862. It is said that as a boy he had the idea that he might one day work as a medical practitioner, but it is likely that his primary motivation was scientific. Studies of animal fossils had stimulated an interest in the anatomy and physiology of animal species which he had examined in the process of identifying and producing detailed tables. Later he carried out similar analyses of data from Irish coastal stations and producing detailed tables. He used his tidal calculations to throw light on the sequence of events at the battle of Clontarf in 1014 and to examine the evidence of the Trinity Mining Company, which in 1856 opened a copper mine in Athlone in Co. Meath, but this venture was not a commercial success.

By 1860 he had become a council member in the Dublin Zoo, of which he had become a council member the previous year. He compiled data from over six thousand species of animals and birds, publishing various detailed analyses of the zoology of the Dublin Zoological Society and the Dublin Zoological and Philosophical Society in the Dublin University Magazine. From 1860 he spent forty-eight hours dissecting the huge boa constrictor which he ordered seriously and preached regularly throughout his life. Many of his sermons were published; these display his robust and coherent religious faith. The view of the world, profoundly shaped by his family biography, had led him to a constant theme that there was only one way to salvation, and the doctrine of original sin, which he had received from his Quaker upbringing, was, in his view, the only one to which the human soul was susceptible.

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Although Haughton never engaged in clinical practice, he none the less exercised a major influence on Irish medicine. In 1863 the Trinity board appointed him registrar of the medical school, a post he held for fifteen years during which time he introduced substantial reforms despite a sometimes strained relationship with the clinical professors. He also represented the university on the General Medical Council. He served on the board of Sir Patrick Dun’s Hospital for thirty-four years, becoming its dominant figure. It was his initiative that led to the extension of the hospital from a purely medical one to include surgical as well as obstetric and gynaecological services. To encourage student in their clinical work he endowed clinical prizes and medals in both medicine and surgery, leaving the residue of his estate for that purpose.

The fact that Trinity graduates were particularly successful in obtaining coveted positions in the Indian Civil Service was significantly due to Haughton and his colleague J. A. Galbraith, who introduced courses to prepare candidates for the Indian Civil Service competitive examination. Haughton and Galbraith also collaborated in writing a series of elementary manuals on various topics in mathematics and physics, and at Haughton’s initiative the college established a licentiate in pathology in 1895, and erected a building to house that activity. He was deeply interested in education at both school and university level. He contributed to the public debate in the 1860s on the future of the Irish universities: he maintained that Trinity College should continue to be linked with the Church of Ireland, but was not averse to the setting up of a college for Catholics and dissenters should a genuine demand for this become evident. Haughton was also an active member of the Royal Irish Academy, to which he had been elected in 1845, and was its president from 1886 to 1891. He was elected to the Royal Society in 1858, and received various other honours including honorary degrees from Bologna, Cambridge, Edinburgh, and Oxford.

Haughton’s wife, Louisa (1828–1888), née Haughton, was a half-first cousin—her father and his were half-brothers. They had four sons and two daughters, one of whom died in infancy. Louisa died in 1888 and Haughton died at his home at 12 Northbrook Road East in Dublin on 31 October 1897. Following a funeral service in the college chapel his remains were buried in the family plot at Killeshin church, just outside Carlow, on 5 November.

Sources

• W. J. E. Jessop, ‘Samuel Haughton’, *Hermathena*, 116 (1973), 5–26
• T. O’Keeffe, *The Royal Irish Academy, a Bicentennial history, 1785–1985* (1985)
• D. Crankly, *Irish masters of medicine* (1992)
• T. G. Bestman, *A short history of Sir Patrick Dun’s Hospital* (1942)
• DIB
• D. J. C., *PRS*, 62 (1897–8), xxxi–xxxiii
• The Times (3 Nov 1897)
• The Times (2 Nov 1897)
• The Times (2 Nov 1897)
• Burke, *Gen. Ire.* (1976)
• private information (2004)

Archives

• Meteorological Office, Bracknell, Berkshire, National Meteorological Library and Archive, meteorological journal relating to Ennistimon and Ballyhaunish
• priv. coll.
• TCD, papers
• CUL, letters to Sir George Stokes

Likenesses

• S. Purser, oils. 1863, TCD *Irish Times*
• S. Purser, oils

Wealth at Death

£5422 7s. 5d.: probate, 25 Jan 1898, CGPLA Ire.