

Wilson, Alexander

(1714–1786)

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Wilson, Alexander (1714–1786), astronomer and type founder, son of Patrick Wilson, town clerk of St Andrews, and Clara Fairfoul, his wife, was born at St Andrews, Fife. His father died when he was very young. He studied at the university there, and graduated MA on 8 May 1733. He was then apprenticed to a surgeon and apothecary, first in St Andrews and later in London. One day he visited a type foundry, and, after examining the processes being used, he was struck by the idea of an improved method of type manufacturing. He relinquished his profession and returned to St Andrews in 1739. There in 1742, with a friend named Bain, he started a type foundry, which was enlarged and removed in 1744 to Camlachie, near Glasgow. In 1747 Bain settled at Dublin, and in 1749 the partnership was dissolved. In 1740 Wilson married Jean, the daughter of William Sharp, a merchant of St Andrews; they had at least three sons. He married for a second time in 1752.

The result of Wilson's efforts at the foundry was an extensive and improved production of types. He furnished his Glasgow friends, the brothers Robert and Andrew Foulis, with their unrivalled types, especially the Greek, which made possible the beauty and artistic finish of the Foulis press. He is specially referred to in the preface to the Homer (4 vols., 1756–8). Assisted by his sons, whom he took into partnership, Wilson continued and extended the business of type founding, and in 1772 he published *A Specimen of some of the Printing Types Cast in the Foundry of Alexander Wilson & Sons*.

Wilson's interest in natural philosophy was apparent in the extraordinary experiments in which he and his friend Thomas Melvil used kites to measure atmospheric temperature (P. Wilson, 284–6). In 1760, through the influence of the duke of Argyll, Wilson was appointed the first professor of practical astronomy at the University of Glasgow. The post carried a salary of £50, charge of the new Downhill observatory, and he was not required to teach. Wilson observed the transit of Venus, Jupiter's satellites, eclipses, and occultations. He studied sunspots, and in 1769 he made his celebrated discovery of what became known as the Wilson effect, which won him the 1771 gold medal of the Royal Academy of Copenhagen. An account of his findings appeared in the *Philosophical Transactions* of the Royal Society of London in 1774 and 1783. His view was that the spots were cavities or depressions in the luminous matter surrounding the sun; he established this by a rigid geometrical reasoning. His theory was disputed by Lalande, who believed the spots were caused by mountains protruding above a liquid surface. In 1861–6 Warren De La Rue's stereoscopic photographs of the sun appeared to validate Wilson's theory, and only after 1900 was the effect understood as an illusion caused by absorption. Wilson envisaged the sun as an immense dark globe surrounded by a shell of luminous matter. By 1795 Sir William Herschel had developed that view into a description of the solar constitution that became the standard model until disproved by spectroscopy in the 1870s.

About 1777 Wilson considered the question that Newton had posed in his *Opticks* (1704): what hinders the fixed stars from falling upon one another? His view, published in an undated short tract 'Thoughts on general gravitation, and views thence arising as to the state of the universe', was that this might depend upon periodical motion round some grand centre of general gravitation.

Wilson received the honorary degree of MD from St Andrews on 6 August 1763, and was one of the original members of the Royal Society of Edinburgh in 1783. He resigned his professorship in 1784, and died in Glasgow on 16 October 1786. He was succeeded in his chair by his second son, Patrick Wilson (1743–1811). There is no record of observations made by Patrick, but he left £1000 to Glasgow University, the interest on which to be used to purchase instruments for the professor of astronomy. The type-founding business was continued by the Wilson family for many years, a branch being opened in 1832 in Edinburgh, while in 1834 the business was removed from Glasgow to London.

Sources

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Likenesses

- J. Tassie, medallion, Scot. NPG
- oil on card, Scot. NPG