

Molyneux, William | Encyclopedia.com

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(*b.* Dublin, Ireland, 17 April 1656; *d.* Dublin, 11 October 1698)

astronomy, physics.

Molyneux was the son of Samuel and Margaret Dowdall Molyneux. He was born at his father's house in New Row near Ormond-Gate. The father was of an old family and, although trained in law, took up a military career during the turbulent 1640's. He was proficient in mathematics and as master gunner of Ireland, performed numerous gunnery experiments.

A delicate child, Molyneux was educated at a Dublin grammar school and entered Trinity College, Dublin, on 10 April 1671 under the tutelage of William Palliser (later archbishop of Cashel). After taking his bachelor of arts degree in 1675 he was sent by his father to prepare for the legal profession at the Middle Temple. He had little zeal for the law and, expecting an independent income, preferred to follow his own interests in natural philosophy. In 1678 he returned to Dublin to marry Lucy Domvile, daughter of the attorney general Sir William Domvile. Her ill health and subsequent blindness imposed a tragic family burden until her death on 9 May 1691.

After a vain attempt to secure a cure for his wife's ills, Molyneux returned to his studies in natural philosophy. While at Trinity he had already turned from Aristotelianism and began the study of Descartes, Gassendi, Bacon, and Digby. He also studied the

Philosophical Transactions of the Royal Society. In April 1680 Molyneux published his first work, a translation of Descartes's *Six Metaphysical Meditations*, for which he wrote a brief introduction and a short sketch of Descartes's life. This book, published in London, appears to be among the first English translations of Descartes. In the summer of 1682 he undertook to publish some queries concerning a description of Ireland in connection with Moses Pitt's *English Atlas*, an abortive attempt that left Molyneux with vast heaps of uncorrelated materials.

In October 1683 Molyneux formed a Dublin scientific society in an attempt to emulate the *Royal Society* of London. He brought together at a coffee-house on Cock Hill about a dozen men to discourse on philosophy and mathematics. They were soon invited by Robert Huntington, provost of Trinity College, to meet at his home, where in January 1684 they adopted the name Dublin Philosophical Society and elected Molyneux their first secretary. Despite his initial pessimism, the society flourished, many scientific papers were read, and correspondence was initiated with the Royal Society and with the Oxford Philosophical Society. The Dublin group was dispersed under the government of Tyrconnell in 1687, but resumed its activities for a brief period in 1693.

During this time Molyneux began a lengthy correspondence with *John Flamsteed*, astronomer royal, and strengthened his connections with the Royal Society, of which he was elected a fellow in 1685. The most important of his numerous articles published in the *Philosophical Transactions* include papers on the hygroscope, optics, and astronomy. In the short work *Sciothericum telscopium* (1686), he described a telescopic sundial constructed for him in London by Richard Whitehead.

Fearing for their lives under Tyrconnell's rule, Molyneux and his family left Ireland in January 1689 to settle in Chester, England. There Molyneux wrote his best-known scientific work, the *Dioptrica nova*, the first treatise on optics published in English. Printed at London in 1692, it was intended as a complete and clear treatise of current optical knowledge independent of any hypothesis concerning the nature of light. Appended to it was Halley's famous theorem for finding the foci of lenses. A popular text, it was reprinted in 1709 and provided a scientific base for Berkeley's *Essay Towards a New Theory of Vision*. The book was widely distributed, and Molyneux personally sent copies to Newton, Halley, Locke, Hooke, Boyle, Flamsteed, and Huygens. Its publication ended his friendship with Flamsteed, who, according to Molyneux, took umbrage at the lack of prominence accorded his work.

In the dedicatory epistle, Molyneux lavishly praised Locke's *Essay Concerning Human Understanding*; Locke's letter thanking him initiated a lengthy correspondence that was ended only by Molyneux's death in 1698. It was during the course of this exchange that Molyneux first posed the famous problem known by his name: Would a blind man, suddenly granted his vision, be able to distinguish by sight alone between a sphere and a cube that he had touched when sightless? Both Molyneux and Locke, as well as Berkeley, decided in the negative.

Through the influence of the duke of Ormonde, in 1684 Molyneux shared the post of surveyor general with William Robinson, but he was removed from the position by Tyrconnell in 1688. In 1691 the family returned from Chester to Dublin, where his wife died. Their son, Samuel, later became a noted astronomer. In 1692 Molyneux was chosen to represent the University of Dublin in Parliament and served for a short time. His services pleased the government and the university, and he was nominated a commissioner of forfeited estates in Ireland (a post he declined) and was awarded an honorary doctorate of laws in 1693.

Molyneux is best remembered for *The Case of Ireland's Being Bound by Acts of Parliament in England Stated* (1698), in which he argued for Ireland's autonomy and against the English Parliament's right to legislate for it. He died of a lifelong affliction, kidney stones, and was interred in St. Audoen's Church, Dublin, in the tomb of his grandfather, Sir William Usher.

BIBLIOGRAPHY

I. Original Works. Molyneux's major published works are his translation of Descartes's *Six Metaphysical Meditations* (London, 1680); *Sciothericum telescopium* (Dublin, 1686); *Dioptrica nova* (London, 1692; 2nd ed., 1709); and *The Case of Ireland's Being Bound by Acts of Parliament in England Stated* (Dublin, 1698). His published articles appeared mainly in the *Philosophical Transactions of the Royal Society*, **14–19** (1684–1697).

The main repositories of his MSS are the Civic Centre Archives, Southampton, which possesses the bulk of his correspondence with Flamsteed and his translations of Galileo and Torricelli on mechanics, now being edited for publication by R. Kargon; and Trinity College, Dublin. The *British Museum* has Molyneux's own copy of the *Dioptrica nova* with MS notes; letters of Molyneux to Hans Sloane on Newton's *Principia*, a 2nd ed. of which Molyneux offered to underwrite (Sloane MS 4036); and the minute and register book of the Dublin Philosophical Society (Add. MS 4811).

Much of the society's correspondence with the Oxford Philosophical Society is in R. T. Gunther, *Early Science in Oxford*, IV (Oxford, 1925), 129–208; and its correspondence with the Royal Society, in T. Birch, *History of the Royal Society*, IV (London, 1757), *passim*. *Dublin University Magazine*, **18** (1841), 305–327, 470–490, 604–619, 744–764, contains four articles with long extracts from Molyneux's correspondence with his brother Thomas. Molyneux's correspondence with *John Locke*, first published in *Some Familiar Letters Between Mr. Locke and Several of His Friends* (London, 1708), is reprinted in *The Works of John Locke*, 11th ed., IX (London, 1812).

II. Secondary Literature. The major biographical source is still Molyneux's autobiographical sketch (1694). in Capel Molyneux, *An Account of the Family and Descendants of Sir Thomas Molyneux, Kt.* (Evesham, 1820). *Biographia Britannica* (London, 1760) has a lengthy account, as does *Pierre Bayle, A General Dictionary Historical and Critical*, J. P. Bernard, T. Birch, and J. Lockman, eds., 10 vols. (London, 1734–1741), which also contains part of the Molyneux-Flamsteed correspondence. There is a short MS biography, probably by Birch, in the *British Museum*, Add. MS 4223. See also Robert Dunlop's article in *Dictionary of National Biography*.

More recent works are Colin Turhayne, "Berkeley and Molyneux on Retinal Images," in *Journal of the History of Ideas*, **16** (1955); I. Ehrenpreis, *Swift: The Man, His Works and the Age*, I (Cambridge, Mass., 1962), 43–88; k. T. Hoppen, "The Royal Society and Ireland: William Molyneux, F.R.S.," in *Notes and Records. Royal Society of London*, **18** (1963), 125–135; and *The Common Scientist in the Seventeenth Century* (Charlottesville, Va., 1970), 90–190, which contains a good account of Molyneux's work and an excellent bibliography.

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