

# Maverick of Fleet Street

**N**ew optical products, aggressive marketing, disputed advertising claims, optical businesses expanding while others fail: just another week in the optical news, perhaps. Were *Optician* around in the mid-18th century, it might well have been reporting on all these topics in relation to the scientific instrument-maker and retailer Benjamin Martin.

Martin came from humble stock, born in 1704, the third of six children of a farmer with land near Guildford. Largely self-taught, he became firstly a mathematics teacher, then the proprietor of a boarding school in Chichester, West Sussex. Around 1737 he began to develop an interest in optics and optical instruments. Characteristic of Martin's personality was that he felt he could make improvements to whatever technical subject he turned his mind. Thus experiments resulted in him developing a 'pocket compound microscope' cheaper and more portable than the fashionable 'Culpeper' model. He wrote a monograph describing his new design, including a description also of a 'universal' microscope he had devised. These and other simple optical items he advertised for sale from his home.

By the early 1740s he had swapped teaching for a life of itinerant lecturing on 'Natural and Experimental Philosophy', all the while demonstrating his apparatus and advertising his instruments for sale. While spells in Reading, Bath and Norwich were moderately successful for his lectures, the logistics of getting his optical instruments from the manufacturers to his customers was proving unsatisfactory. In 1756 he decided on moving to London to open his own shop. But to trade in the City required him to be a freeman. The relatively new discipline of instrument-making did not have its own guild (the Worshipful Company of Scientific Instrument Makers was, in fact, only established in 1955, with the support of the Spectacle Makers and Clockmakers); apparently many instrument makers became freemen of the Grocers' Company, although records show that Martin joined the Goldsmiths' Company and became a

18th century optician Benjamin Martin had a talent for self-promotion and opportunism to rival that of many a modern day whiz kid entrepreneur. **David Baker** investigates



**Benjamin Martin** Image courtesy of The College of Optometrists/BOA Museum

freeman of the City in February 1756.

Martin found an advantageous site in Fleet Street located just two doors away from the Royal Society's home of the time at Crane Court, so that the Society's members would inevitably pass by his premises on their way to meetings. He began a vigorous campaign of marketing innovative products almost immediately, to the consternation of the many opticians and instrument makers in the neighbourhood. One of these products was his 'visual glasses' (sometimes referred to by modern collectors as 'Martin's Margins'). He promoted them in a pamphlet, *An Essay on Visual Glasses (Vulgarly called Spectacles)*, in which he would show 'From the principles of Optics, and the nature of the Eye, that the common

Structure of those Glasses is contrary to the Rules of Art, to the Nature of Things, etc, and very prejudicial to the Eyes...and Glasses of a New Construction proposed.'

The visual glasses were designed to overcome the many inherent faults of 'common spectacles' as Martin saw them. These were chiefly that the lenses were placed in the same plane, parallel to the eyes, causing light rays to be refracted irregularly toward the eyes; the large lens size admitted too much light to the eyes, causing irregular refraction from the lenses' periphery and also excessive, harmful light, when only a particular quantity of light is necessary for perfect and distinct vision; clear glass or the usual shades of coloured glass admitted the larger, red, particles of light which are not as refractable as the smaller, blue particles; the image through correctly coloured lenses would be more perfect than clear ones.

Martin introduced three major innovative features to rectify these deficiencies:

- The lenses were tilted inward, so that their optical axes converged on to the object of regard
- The lens apertures were reduced from a typical diameter of 1½ inches to one inch
- The lenses were tinted violet (the colour 'least hurtful to the eyes' according to Martin).

He made a shop sign bearing the image of a pair of visual glasses, and his business prospered. Within five years of opening his shop he moved to larger premises two doors away, at 171 Fleet Street. His new neighbour, optician John Cuff, most likely was not best pleased, especially as Martin adapted a compound microscope of Cuff's design to produce an improved instrument. Martin's aggressive marketing soon sent Cuff's business to the wall.

The visual glasses were popular enough to be finding their way to America, as advertised, for instance, by John Greenhow in the *Virginia Gazette* of April 11 1771: 'Visual

spectacles, of a new construction, by Martin, the celebrated optician'. But there were early criticisms of the new glasses, which Martin had already responded to in his Essay. To the accusation by customers that they could see no better or that the light hurt their eyes no less with the new spectacles, Martin gave the time-honoured response that it took time to adjust to and appreciate the benefit of his appliance.

Martin, in his Essay, was also scathing of those opticians who, seeing the popularity of his new design, were copying his glasses, even while the optical trade was ridiculing them. 'I have only one favour to ask those worthy gentlemen,' he writes, 'and that is, that, since they have taken so much pain to deprecate my inventions, they will act consistent with themselves and not imitate them. Let them who know nothing of optics, make spectacles; and those, who profess not to use their reason, buy them; I shall always find a demand for Visual Glasses.' Worse still, it seems that bootleg 'branded' examples were being circulated. Martin always marked his glasses with his initials 'BM' but, in price



'Martin's Margins' Image courtesy of The College of Optometrists/BOA Museum

lists from 1762 onwards, Martin notes, 'NB The visual glasses sold by peddlers... with the initials of my name, were never made or sold by me.'

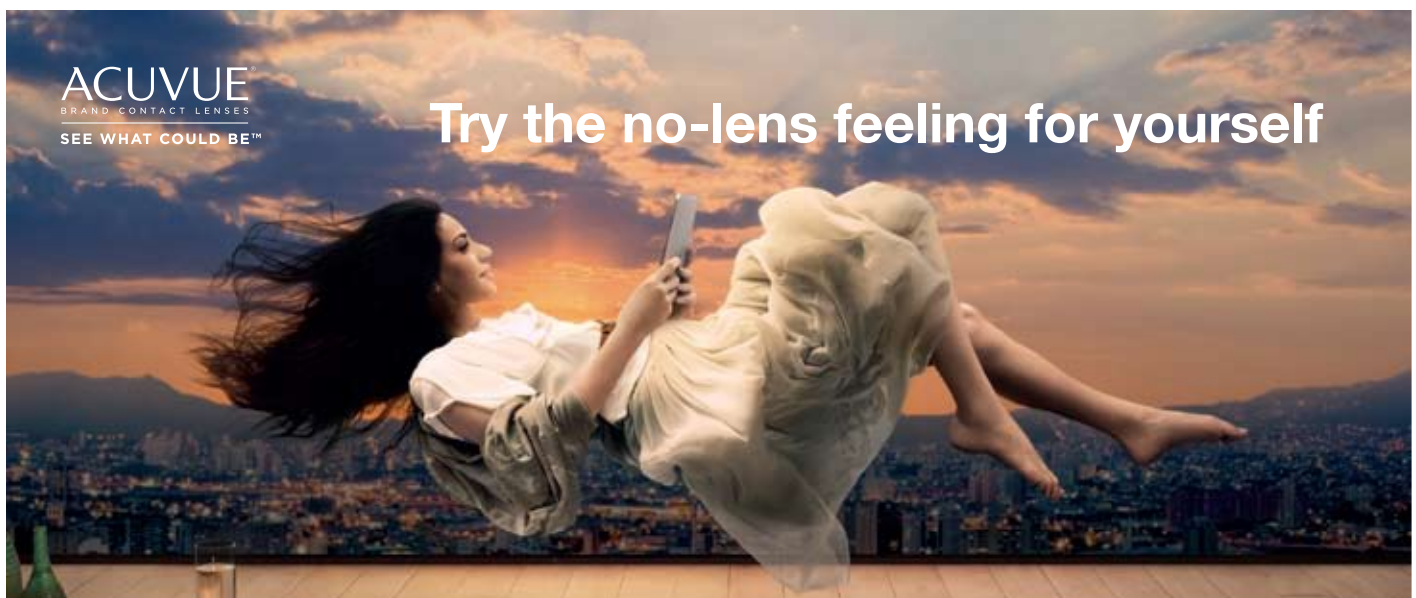
There were advertising wars, too, most notably with the prominent optician James Ayscough, who basically accused Martin of quackery. Martin continued to advertise but never directly answered Ayscough's criticisms. This drew Ayscough into printing ever more extensive rants, the consequence of which was merely additional free publicity for Martin.

The business was by now very successful. Joint publishing ventures with his bookseller, William Owen, helped spread knowledge of his products to an even wider audience. One huge order came from Harvard

to replace instruments lost in a fire. Many of those instruments supplied from 1765-8 are still held by the college. By the age of 65, Martin was passing much of the everyday business to his son, Joshua, and around 1778 the business was renamed 'B Martin & Son'. But Joshua was not in the same league as a businessman, and within four years Martin was declared bankrupt. So shocked was he by this sudden decline in fortunes, he apparently attempted suicide; at any rate, a month later Benjamin Martin was dead. He was buried in the vaults of St Dunstan's, just yards from his Fleet Street shop.

Twenty-six years' worth of price lists issued by Martin's shop and a surviving copy of the catalogue of the sale by auction of the shop's stock allows one to examine precisely the huge quantity and variety of instruments that Martin dealt in. But one can only speculate how his career would have played out under the glare of the Advertising Standards Authority, the General Optical Council, the *Optician* letters page... ●

● David Baker is an independent optometrist



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