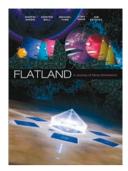
That extra dimension



FLATI AND: THE MOVIE

Princeton Univ. Press: 2008. 35 min. \$29.95/£19.99

Science fiction is like jazz — people think they know what it is, but finding a precise definition is another matter. In which case, my two cents are as worthy as anybody's: the most enduring science fiction is a mode of expression in which our current concerns are explored in fantastic surroundings, the better to understand their contemporary impact. The fiction of the late Arthur C. Clarke, for example, was almost always about the reaction of people to advanced technology; that of H. G. Wells, in contrast, often had an explicitly social dimension. The effete Eloi and the industrious Morlocks in *The Time Machine* are, quite deliberately, satires on the stratified social structure of late-Victorian England.

Satire was at least an occasional preoccupation of another Victorian, Edwin A. Abbott (1838–1926). Abbott was a schoolmaster, philologist and theologian. He wrote on Shakespeare, Francis Bacon and St Thomas Becket, as well as theological treatises and religious romances. His claim to fame, however, is the curious novella *Flatland: A Romance of Many Dimensions* (1884).

Flatland is set in a universe of two dimensions. The residents are geometric figures who rise in society according to their sidedness. Rank increases with each generation — triangles are the lower orders; squares are professional men, and their children are successively more polygonal, until, one day, their descendents reach the exalted state of circles — the priests and lawmakers. Women, however, are always straight lines, kept confined in case their points puncture a male.

The tale is told by a clerk, A. Square, who begins to wonder about the existence of a third dimension — a heresy punishable by imprisonment or death. He is visited by a sphere from three-dimensional Spaceland, and his incredulity is compared with the reaction of the residents of one-dimensional Lineland and zero-dimensional Pointland to his own intercessions. These are as fruitless as his attempts to convince other Flatlanders that the third dimension exists, and the story ends with A. Square in jail.

On one level the brutal theocracy of Flatland is a vicious satire on Victorian England, a society that offered a paradoxical mix of self-advancement

(except if you were female) and stringent conformity (especially if you were female). On the other, A. Square is a hero in the mode of Gulliver, Winston Smith in 1984 or the Savage in Brave New World — the everyman outsider who sees the world in new ways that his contemporaries cannot accept. This, together with its setting in which ordinary people are shown living in exotic circumstances whose differences from our own world are made scientifically explicit, perhaps explains why SF readers have gathered Flatland into their collective bosom. Flatland has never been out of print, and has attracted many imitators and spin-offs such as Dionys Burger's Sphereland (1965) and Ian Stewart's Flatterland (2001).

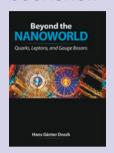
Flatland has also been filmed, several times — from a 1965 animation featuring Dudley Moore as A. Square, to a 98-minute feature film directed by Ladd Ehlinger, released last year. Flatland: The Movie, directed by Jeffrey Travis, is a 35-minute all-star animation (Martin Sheen as A. Square) and is packaged as an educational short. The DVD contains features exploring the idea of dimensions, and is accompanied by a beautiful book that includes a facsimile of Abbot's story, as well as the screenplay and stills from the movie.

The movie softens the totalitarian aspects of Flatland in two respects only. First, women are geometric shapes, rather than lines, and contribute to society. The screenplay changes the genders of some characters — notably Hex, A. Square's granddaughter, a grandson in the novella — and introduces new ones. Second, it has a Hollywood happy ending, with the general population accepting the idea of a third dimension, and the tyranny of the circles overthrown. My children (aged 10 and nearly 8) enjoyed it, but more for the comedic aspects (Tony Hale as the King of Pointland is a treat) and the sumptuous visuals and music than for the educational value, but I suspect that at least some of that will have sunken in, in some higher (or lower) dimension.

Henry Gee

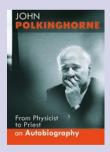
Henry Gee is a Senior Editor of Nature. He edits the Futures series of SF stories in both Nature Physics and Nature.

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"I am a scientist theologian, someone who is both a physicist and a priest — a statement that sometimes arouses the kind of curiosity or suspicion that might follow the claim to be a vegetarian butcher."