Reviews

Revolutionaries of the cosmos – the astrophysicists

by I. S. Glass

Ian Glass, currently senior astronomer with the South African Astronomical Observatory in Cape Town, has done an astounding amount of research to put together a fascinating biography of 'The Astro-Physicists'. Glass obtained his PhD in Dublin, then spent five years at the Royal Greenwich Observatory.
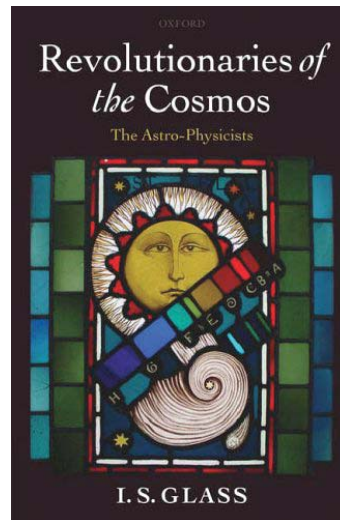
The book has chapters devoted to the life of each of eight astrophysicists – Galileo Galilei, Isaac Newton, William Herschel, William Huggins, George Hale, Arthur Eddington, Harlow Shapley and Edwin Hubble. Each chapter is concise, and only contains material relevant to their discoveries and productive life. As an amateur astronomer I thought I was pretty well versed in the achievements of Galileo, Herschel and Hubble; not so. For example, I didn't know it was Galileo who discovered the 'libration' of the Moon, that Herschel discovered infrared radiation at the age of 62, or that William Herschel's son John was a friend of my hero Charles Babbage. As a bonus we also get quite a bit of detail about the work of Caroline Herschel.

Although I had heard of Huggins, I wasn't really familiar with his achievements, so I particularly enjoyed the chapter on his life and work. Little nuggets of information kept cropping up, such as that Shapley's wife was a mathematician who calculated shell trajectories for the US Navy.

The book contains a huge number of references and quotations from correspondence to, from and about the subjects. It also presents some very interesting facts, such as 'even in the 1930s, there were those who still believed in a Sun-centered (sic) universe'. Which leads me on to a topic dear to any editor and proofreader's heart: why is a book published and printed in Britain littered with American spellings, while still also containing British ones? The quotation at the start of Chapter 9 has the spelling 'center' (US) and 'neighbourhood' (UK) only two lines apart. There are a few real spelling mistakes too. I also wonder why so many people don't capitalise Sun, Moon and Earth, when they capitalise Milky Way, Mars etc. The Sun is our sun, not just any old sun, likewise the Moon is our own moon.

This does not detract from a brilliantly written book, it is merely a niggle. Whenever a term appears that may not be understood by the reader, the author never fails to explain or enlarge on it. Galileo's story and his fight for his ideas to gain acceptance shows that nothing really changes – compare this with the current insistence in the US that creationism is taught in schools as a valid scientific theory. Even now many of the world's woes are caused by religious bigotry, indoctrination and ignorance.

Hale's story and his involvement at the observatory at Mount Wilson are most poignant to me having been there myself. While I was at the observatory there was an earthquake that shook the building and resulted in rock falls partially blocking the road down the mountain. Apparently my inconvenience was nothing compared to those early days transporting heavy equipment up a mere track. Another interesting fact is that even in 1929 Mount Wilson suffered light pollution from Los Angeles.

Even though this book is beautifully produced and fairly expensive it needs an ugly word to describe it – unputdownable. Rarely have I read a book that enlightened and interested me so much.

Sheridan Williams

Sheridan Williams is a keen amateur astronomer whose main interest is the 'changing sky' – eclipses, comets, asteroids. He is a member of the Open University Astronomy Society and also a BAA Council member. He is the author of UK Solar Eclipses from 1 to 3000AD *and the* 2006 Total Solar Eclipse Bradt Travel Guide.