



Obituary

Professor David W. Hughes (1941–2022)

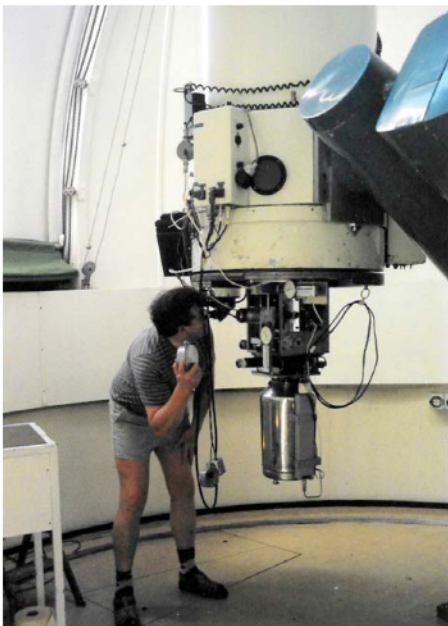
Professor David W. Hughes – academic, inspiring astronomer, and past Vice-President of the BAA – died in 2022 June.

David was Vice-President of the BAA from 1979–1981 and a Council member in the 1970s. He was a BAA member for 52 years, a frequent contributor to the *Journal*, and a regular lecturer to the Association.

It is not easy to write a linear account of David's life, since he embraced all aspects of it simultaneously. Astronomy was central, of course, but it was accompanied by numerous related topics, in addition to which were his many hobbies. To all of these he brought the same energy, expertise and infectious enthusiasm – David was not a man for half measures.

His academic career followed traditional lines, though faster and further than most. At 17 he embarked on his first degree, in the Physics Department at the University of Birmingham. His decision to study at Birmingham proved life changing. Lectures by Martin Johnson kindled David's lifelong passion for astronomy, and firmly lodged the idea of becoming a university teacher.

Consequently, he proceeded to New College, Oxford, to study for a DPhil in Astrophysics. Then, aged 23, he joined the staff of the Physics Department at the University of Sheffield. He remained there from 1965 until retirement in 2007,



David using the 24-inch reflector at Siding Spring Observatory, Australia in 1986 March, where he was observing standard stars for calibration, prior to making observations of Halley's Comet with the 3.9m Anglo-Australian Telescope.

by which time, due to David's influence, it had changed its name to the Department of Physics & Astronomy, with David as its first Professor of Astronomy. After retirement he was honoured with an Emeritus Professorship.

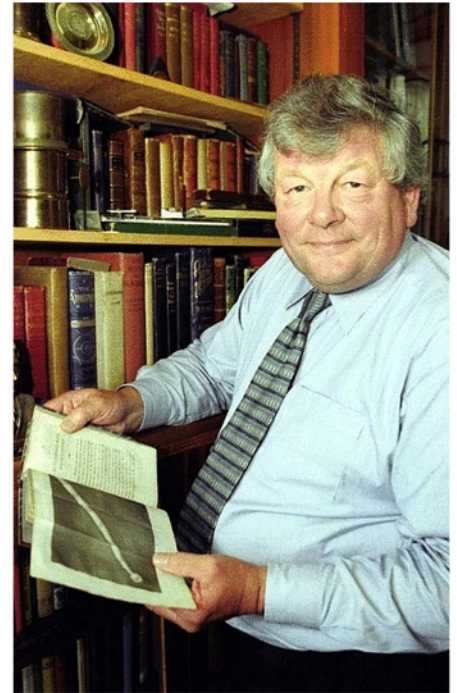
His research focussed on the smaller components of the solar system: comets, asteroids, meteorites, meteors and cosmic dust; specifically making important contributions to our knowledge of their origin, evolution and interaction with Earth. His pioneering work on the mass distribution of comets and asteroids was a key to understanding the origin mechanisms and decay processes of these bodies, and through his study of the impact of near-Earth objects David quantified the cratering rate on Earth. His research established him as a leading European astronomer and international authority. Asteroid 4205 was named after him, in recognition of his research and outstanding work in the popularisation of astronomy.

University staff tend to favour either teaching or research, but David threw himself wholeheartedly into both. He was a natural at lecturing – an important skill for the teaching of students and disseminating an understanding of astronomy to a wider public. David was a virtuoso communicator – one-to-one, in the lecture theatre, on radio and television, and (after retirement) on cruise ships. He enjoyed this as much as did his audiences, and his services were greatly in demand.

In addition to university lecturing, David gave at least one public lecture per fortnight for more than forty years. Beneficiaries were astronomical societies and public audiences UK-wide. He developed his lecture on the star of Bethlehem into an article in *Nature* in 1976, and then into his seminal book *The Star of Bethlehem Mystery*, which investigated religious and astronomical explanations of the star. Now a world expert on the subject, for the rest of his life December was busy with 'star' lectures and television filming.

It was while filming a BBC *Horizon* special at the Royal Observatory, Greenwich that he met Carole Stott, his future wife. Two halves of a whole, David and Carole shared their love of astronomy, writing, collecting and travelling for forty years. And their lives were enriched by two children and two grandchildren.

The BBC special anticipated the 1986 return of Halley's Comet and the consequent interest.



David in his office at the University of Sheffield.

David fulfilled countless requests for comet lectures and broadcast interviews. Notably, he presented the 1985 BAA Public Lecture at the London Planetarium; he also lectured in the USA on behalf of the Royal Society, and in Brazil for the British Council. He helped secure a memorial for Edmond Halley in Westminster Abbey and worked with Royal Mail on commemorative stamps.

A key player in the genesis of space missions to comets, David was co-investigator for two experiments on ESA's *Giotto* spacecraft to Halley: a dust-detection system, and a multicolour camera which took the first ever images of a cometary nucleus. Over a three-week period before, during and after *Giotto* encountered the comet, David made ground-truth images with the 3.9m Anglo-Australian Telescope. Later, he was a co-investigator on the *Rosetta*

(cometary) and SMART-1 (lunar) missions.

A less glamorous, though equally important, aspect of astronomy is its administration. Yet again, David played a prominent part. In addition to serving as BAA Vice-President, he was the Royal Astronomical Society's Vice-President (2005–2007), a RAS Council member, and editor of two of its journals. It would be tedious to list the many committees, advisory panels and examination boards on which he served, but they included, *inter alia*, those of the UK's Space Science Advisory Committee, the European Space Agency, and the Swedish National Space Agency.

“Astronomy fascinates me precisely because we're always studying things we don't know – but we are learning all the time.”

– David W. Hughes



David's model of a comet's nucleus, revealing its interior. It was made based on David's research, 1983

Despite his busy professional and family life, David found plenty of time for many other passions. First were railways, dating from his youthful train-spotting days. This blended well with his peripatetic lecturing and collecting proclivities – he had definitive collections of cast-iron railway signs and livery buttons, the envy of aficionados worldwide. He also had more traditional cultural interests, being a knowledgeable collector of Chinese ceramics, an accomplished pianist and a lover of literature. His appetite both for fiction and non-fiction was prodigious and he never left home without half a dozen books. It was not one-way traffic, however; David was a prolific writer of 10 books and over 900 published papers and articles, more than 40 for the BAA.



Explaining William Heath Robinson's 1909 humorous cartoon 'Searching for Halley's Comet' to the Duke of Edinburgh, 1985. On the left is David's wife, Carole.

David's love of travel was indulged once retired, memorably visiting his daughter in India, wading through volcanic ash in Papua New Guinea, and helping 4,000 guests and crew experience a total solar eclipse from a South Pacific cruise ship. Always cheerful and positive,

David delighted in the world about him. Above all else he was a devoted family man; a much-loved and loving husband, father and grandpa who is greatly missed. 🇬🇧

Stuart Malin & Carole Hughes

New members

The BAA welcomes the following new members.

2023 June 7

ARDEN William, Mifflin, UNITED STATES

ARENAS Arjan, Barnet

ATTFIELD Jonathan, Staffordshire

BERGERON Serge, Ontario, CANADA

BLACKBURN Paul, Hertfordshire

BROWNE Dana, East Baton Rouge, UNITED STATES

BROWNE Neville, Aberdeenshire

CAIRNS Peter, Wiltshire

CLARK Jane, Caerphilly

COX Nathan, Lincolnshire

CULLINAN Michael, Hertfordshire

DOWNES Gordon, Hampshire

FOSTER Martyn, Essex

FOX Gerard, East Sussex

GALL Alan, Wigan

GILL Sylvester, Christ Church, BARBADOS

GODEFROY Andrew, Ontario, CANADA

HIBBERD Ash, South Australia, AUSTRALIA

HOGG William Ernest, Co. Dublin, IRELAND

JAMI Kabir, West Sussex

LANE R., Southend-on-Sea

LUCAS William, Fife

MARSHALL Donald, Lanarkshire

MASON Tom, North Yorkshire

MILLS Stephen, Hertfordshire

MURPHY Timothy, Las Palmas, SPAIN

PALMER James, Hampshire

PERERA Karl İzmir, TURKEY

PUGH Morgan, Central Bedfordshire

SARANGAN Nimaya, South Gloucestershire

SARATHCHANDRA Chathura, Havering

SAVILLE Lawrence, Hampshire

SHEEHAN Stephen, Dublin, IRELAND

SMART Philip, Surrey

SMITH Steven, Devon

SMITH Teresa, Suffolk

TALBOT Alec, Hampshire

TAYLOR Dr Robert, Lancashire

TWEEDIE Mark, Coventry

VINCENT John, Oxfordshire

WADUD Ryaan, Redbridge 🇬🇧