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Obituaries

DAVID ALLEN (1946–1994)

David Allen was the first and only permanent member of the scientific staff of the Anglo-Australian Observatory. David's unique contribution to astronomy in Britain and Australia was his realization that, with the latest technology, he would be able profitably to exploit the prospects of short-wavelength infrared technology as used on a big telescope, even through the sometimes murky infrared windows in the atmosphere over the AAT.

David Anthony Allen was born in Altrincham, Cheshire, on 1946 July 30. As a child a mis-diagnosed trivial medical problem resulted in a deteriorating condition, stabilized by an operation to fuse his hip but, in spite of this, David was very active physically, regarding a climb to the top of Kilimanjaro as the pinnacle of his activities. He attended Manchester Grammar School and Trinity Hall, Cambridge, where he underachieved with a 2(i) and met his wife-to-be, Carol, whom he married in 1969.

David learnt infrared techniques in his PhD at Cambridge under David Dewhirst ('Thermal studies of the lunar terrain' was his thesis) and later in Minnesota, where he determined the sizes of asteroids from their thermal emission by comparison with the sunlight which they collected. He was Carnegie Fellow at the Hale Observatories 1970–72 and a research Fellow at the RGO in 1972–75, where he continued working on infrared astronomy with Ian Glass. He joined the AAO as an SRC Fellow (1975–1977), after which he became a member of the scientific staff. At the interview he was warned that infrared astronomy was likely to be unproductive at the AAT because it was situated in too warm a climate, had a dirty beam and suffered under a wet atmosphere; fortunately for astronomy he ignored the comment. In 1983 his term on the scientific staff was due to expire, and the AAT Board was insistent that the AAO should never have permanent scientific staff. AAT users protested and David was tenured. Until his death in Sydney, NSW, on 1994 July 26, he was *de facto* Deputy Director of the AAO under Russell Cannon; he was Acting Director more than once.

David had persuaded a previous Director of the AAO, Don Morton, that there was in fact a place for IR astronomy at the AAT and built IRPS, a single channel photometer, which, much more versatile than it sounds, was cleverly used for spectroscopy and speckle interferometry. It was displaced from the AAT first by FIGS (an infrared spectrograph) then by IRIS, a mercatel array spectrometer, although IRPS continued a productive life as late as 1993, taken to Antarctica for site testing purposes. IRIS remains in use on the AAT now.

David used his instruments on the AAT in 1983, and subsequently, in what he described as possibly his most significant body of work, to see, for the first time, through Venus's otherwise opaque clouds down towards its solid mountainous surface (by thermal radiation leaking through a thin, broken

cloud layer and windows in the Venusian atmosphere). His wide scientific interests included work on symbiotic stars (he helped show that they were wide binaries with Mira companions), Wolf-Rayet stars, Eta Carinae, the Galactic Centre (he showed that the inner regions of the Galaxy are dominated by early-type stars and clusters), interstellar matter, supernovae and Active Galaxies.

David became a Junior Member of the RAS in 1967 and a Fellow in 1971. Living so long in Australia he was a prominent member of the Astronomical Society of Australia, becoming President in 1991–93. He served on the Australian National Committee for Astronomy in 1991. His impact on RAS Fellows was probably greatest by his service on behalf of the user community of the AAT.

David's energy showed not only in an impressive corpus of scientific papers, but also a wide range of enthusiasms (fossils, travel, drawing, carving), and his galloping walk, favouring his stiff leg, his blond forelock of hair flicking over his brow. He authored innumerable articles and books about astronomy, some with his wife Carol. Patrick Moore, who first knew David as a short-trousered 9-year old who had come to look through his telescope, particularly admired David's writing skill. David was a frequent guest on 'Sky at Night', Patrick gathering in TV cameramen at the weekend to take advantage of a rare visit to the UK. It was on such a visit last year that David realised that his sight had suddenly deteriorated. Back in Australia, a brain tumour was diagnosed. It was an "unusually aggressive cancer", he wrote in an electronic mail message circulated globally to friends. "What else would you expect from David Allen?". The message sought no sympathy.

David weakened – even pecking out and re-editing short e-mail messages became impossibly laborious. He warned his scientific collaborators not to expect him to contribute further to joint studies with IRIS. His intellect remained, and he discoursed to a bed-side gathering of the AAT's governing Board what the telescope's future should be. It was the pain of the family that revealed the suffering of the inner man.

Because of his leg, David did not drive; it was Carol who peered over the huge steering wheel of a Land Rover as they explored outback Australia, sunhatted children (Kachina, Andelys and Alasdair) aboard. David seemed happiest exploring unknown places, the Nullarbor Plain or Venus, in the company of his family and his friends.

PAUL MURDIN