

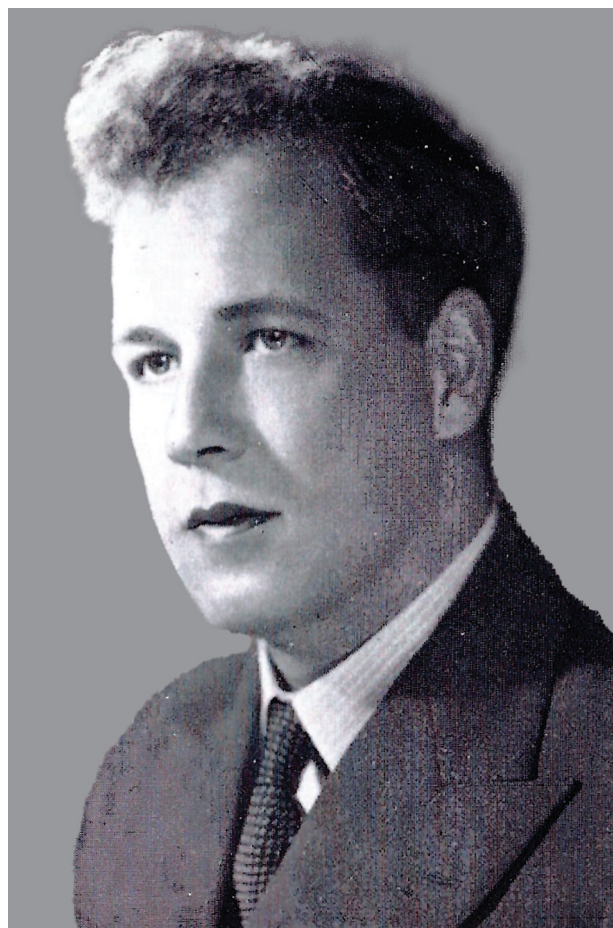
## Basil Eric Balme

13<sup>th</sup> June 1923 – 10<sup>th</sup> July 2023

Doyen of Australian palynology

One of the leading figures of post-war palynology, Basil Eric Balme, passed away on 10 July 2023 in his 100<sup>th</sup> year. He was born on 13 June 1923 in Perth, Western Australia. His grandfather hailed from Yorkshire and his father had been involved in the Battle of Passchendaele in WW1 as a member of the Australian forces. After the war, his father worked in Collie and farmed at Meckering before becoming a shopkeeper in Victoria Park and then South Perth. Consequently, Basil attended a variety of primary schools before gaining entry to Scotch College as a Coombe Scholar with a Council Scholarship. There he made his mark playing Australian Rules football and cricket, and was Head Boy in his final year. Basil commenced studies at the University of Western Australia (UWA) in 1941, initially in engineering before switching to science, majoring in geology, where the lecturer in palaeontology was the internationally renowned Curt Teichert (1905-96). However, in 1942 he suspended his studies to enlist in the Royal Australian Navy. Initially, he received intensive training in the then-new radar technology and went on to serve as a radar operator and eventually Petty Officer on ships in the Mediterranean and Pacific. He recalled serving for several months on a ship and had several discussions with Philip Mountbatten (subsequently Prince Philip, Duke of Edinburgh).

Basil returned, post-war, to UWA in 1946 to complete his undergraduate studies, achieving first class honours in 1948. For his honours project, he was invited by Joe Lord, then a geologist with the Geological Survey of Western Australia, to investigate spore-pollen assemblages from the Collie Coalfield, 160 km south of Perth, with a view to correlating the coal seams in Joe's pet project. He was under no illusion about the difficulty ahead, noting "it is with some trepidation that one approaches the task of employing miospores as fossils for stratigraphical purposes". Despite his reservations, Basil was able to describe and illustrate 36 types of spores and pollen from 35 mine face and borehole samples. This enabled him to distinguish two assemblage types and compare his material with published descriptions from New South Wales, Queensland and India: a remarkable achievement for the time. This work was published in 1952 as part of a Bulletin on the Collie Mineral Field. It was the first study of palynomorphs of any age from Western Australia, and one of the few from anywhere in Australia. As an undergraduate, Basil was awarded the Lady James Prize in Natural Science and the E.S. Simpson Prize in Mineralogy (both jointly with John Glover) and a CSIR Junior Scholarship. He continued his sporting interests, playing cricket and Australian Rules football for the university and was treasurer of the Guild of Undergraduates.



Travelling to England in 1949, he married Helen Cook from Dumbleyung, Western Australia, who at the time was an entomologist at the Natural History Museum, London. Basil joined the National Coal Board's Coal Survey Laboratories in Sheffield, collaborating with Mavis Butterworth and Harold Smith in the study of miospores from British Carboniferous coalfields. He returned to Australia in 1952 to work in the CSIRO Coal Research Section in Sydney. While in this position, he published three papers in 1955-56, co-authored with John Hennelly, on Permian spore-pollen taxonomy. These included many taxa from the Collie Basin that he had first encountered as a UWA honours student.

In mid-1957, Basil accepted a position as Lecturer in Geology at UWA. There he spent the rest of his academic career, progressing to Reader in Geology in 1969 and serving as Dean of Science (1979-81) and Head of the Geology Department (1983-85). His return to Perth in 1957 coincided providentially with the expansion of oil exploration in the state by West Australian Petroleum Pty Ltd (WAPET), a company with leases covering vast tracts in the Phanerozoic sedimentary basins of Western



Australia. Basil had previously examined numerous samples from WAPET exploration wells, and with his return to the state this collaboration expanded. The general paucity of surface outcrop of Palaeozoic and Mesozoic strata – nevertheless, extensive at depth in all the state's Phanerozoic sedimentary basins – was the impetus for using palynology from boreholes and petroleum wells. His taxonomic publications describing spores-pollen from subsurface Devonian, Permian and Triassic strata provided the essential basis for much of the ensuing biostratigraphic correlations. Many of his papers detailed geological boundary correlations, particularly the Permo–Triassic boundary, and he contributed to numerous international volumes. He also supervised at least seven higher-degree theses on palynological topics and most of the students proceeded to careers in palynology or joined the petroleum industry in other capacities. Furthermore, Basil was instrumental in supplying rock material to his colleague, Isabel Cookson (1893–1973) at the University of Melbourne, accompanied by precise geological formation and age data. From this material, she with her principal co-author, Alfred Eisenack, described a large number of dinoflagellate cyst taxa that became the foundation of many subsequent taxonomic and biostratigraphic studies of Jurassic, Cretaceous and Cenozoic dinoflagellate cysts.

Basil was awarded a D.Sc. from UWA in 1968 and the W.R. Browne Medal of the Geological Society of Australia in 1988. He became President of the Western Australian Division of the Geological Society of Australia in 1961 and President of the Royal Society of Western Australia in 1976. During overseas study leave, he has been Visiting Professor of Micropaleontology at New York University/ American Museum of Natural History in 1962–63,

Visiting Research Scientist at Chevron Oilfield Research Laboratory, Los Angeles (1971–72), and Occasional Lecturer at Aarhus University, Denmark (1978–79). A festschrift volume – published in his honour (*AAP Memoir* 5, 1988) and edited by Peter Jell and Geoffrey Playford – contains many papers by his colleagues and former students.

Following retirement in 1988, Basil continued in an adjunct position at UWA, eventually sharing, with his long-standing colleague John Glover, a very small office that had for many years been his microscope room. In 1995, he published a very comprehensive (242 pp.) catalogue of in-situ spores and pollen grains. This substantial reference work – the result of sustained effort over several years – is unlikely to be superseded. During 1999–2001, he collaborated on an extensive work on the Late Triassic palynology of the Rankin and Goodwyn gas fields in the Carnarvon Basin. This constituted his last palynological contribution.

In concluding this eulogy, it is appropriate to reproduce here paragraphs from the preface to the 1988 volume honouring Basil (*Australasian Association of Palaeontologists, Memoir* 5): “For many of us, it is his love of words that we associate with Basil. In conversation, in letters, and his scholarly writing there is so often evident his apt, original, and vivid use of language. Who else could describe his hometown of Perth as ‘something between Dallas and Cheltenham?’ He was a masterly lecturer and an entertaining speaker; his after-dinner address to the Gondwana Symposium in Canberra in 1973 is recalled with affection as something of a landmark of light-hearted oratory in Australian geological circles. The same wry humour enlivened his lectures to undergraduates. It was a love of words which no doubt led him into his association with university theatre in Western Australia, and to roles in such plays as Capek’s ‘The Insect Play’, Shaw’s ‘St. Joan’, T.S. Eliot’s ‘The Cocktail Party’. There was too his role as the soothsayer in Sophocle’s ‘Oedipus Rex’ played in the lovely setting of the Sunken Garden, and on one occasion before a daunting audience which included Sir Laurence Olivier. Basil has a rare skill as a written communicator. Those of us fortunate enough to have undertaken research under his supervision will recall his always apposite and tactful recommendations for remedying disorganized observations and faulty syntax. We recall with gratitude, too, his wise counsel, his unfailing accessibility to us and our ideas, his good humour, and his tolerance.”

Basil’s wife, Helen, predeceased him in 2008. He is survived by their three children, five grandchildren and two great-grandchildren.

#### **John Backhouse**

Honorary Research Fellow, The University of Western Australia, Perth

#### **Geoffrey Playford**

Professor Emeritus, The University of Queensland, Brisbane