

Obituary

PETER GODWIN EMBREY (1929–2010)



Peter Embrey passed away on 24th December 2010 at Charing Cross hospital. He was an inspiration to many of those who knew him and especially to those who worked with him and formed part of his team at the British Museum (Natural History) now the Natural History Museum, London. Classically educated, he was revered as a fount of knowledge on historical, taxonomic and topographic mineralogy and crystallography. He was a noted bibliophile and built up a vast collection of books on crystallography, mineralogy, scientific instruments, the history of science, the geology and mining history of southwest England, mathematics and computing. He was fascinated by the craftsmanship and development of scientific instruments and in their practical use in mineral optics and goniometry, and also kept up with the latest developments in computational methods until well into his retirement. In respecting the contributions made to science by amateur mineralogists and the collecting fraternity, Peter was at the forefront in the development of the National Collection of Minerals, partly through encouraging donations from his many contacts

and also through a series of exchanges at a time of low or non-existent acquisitions budgets.

Peter Godwin Embrey was born on 31 January 1929 in Edgbaston, Birmingham into a family that was well known at the time for its bakery business in Stoke-on-Trent. He was educated at Denstone College preparatory school and then at Oundle school in Northamptonshire, where he developed a strong interest in mathematics and science, before going up to Oriel College, Oxford University, in 1947, to read chemistry and mineralogy. His tutor at Oriel was the famous research chemist Dalziel Hammick FRS who had a lasting influence on him. At Oxford, he met Arthur Kingsbury who had just been appointed Research Assistant in the University Museum and Peter wrote:

“It was at this time, in my freshman year, that I first met him and became infected by his enthusiastic interest in everything connected with specimen mineralogy.”

Sir Arthur Russell, the most distinguished British mineralogist of the day was another major influence with whom Peter forged a great friendship around this time. Peter graduated in

1951 with BSc and MA degrees, and embarked on a DPhil which was supervised by Louis Ahrens, but which was never completed. He was, for a time, a demonstrator and junior lecturer in the Department of Geology and Mineralogy as it was then known.

In his early Oxford days, Peter joined the University RAF Squadron, partly to fulfil his National Service requirements; he worked his way up, flying Tiger Moth, Chipmunk and Harvard II B training aircraft operating out of RAF Cottesmore in Lincolnshire and RAF Middleton St George in County Durham. In 1952 he joined 501 Squadron of the Royal Auxiliary Air Force based at Filton near Bristol, flying de Havilland Vampires and Gloster Meteor jet fighters. He flew solo back from Gibraltar in 1955 and repeated the trip both ways via Istres in France in 1956. He also spent some time testing ejector seats. This activity for someone like Peter, who was big-boned and tall, probably resulted later in life in the fusing of many of his vertebrae (ankylosing spondylitis) which left him in considerable pain and almost doubled-over for the last few years of his life. He also suffered from tinnitus in his later years, again probably the result of engine noise damage from his flying days.

Peter wrote in the foreword to the facsimile edition of Greg and Lettsom's *Manual of the Mineralogy of Great Britain and Ireland* that he was "lastingly indebted" to Sir Arthur Russell, who drew his attention to a vacancy in the Mineralogy Department at the BM(NH). He started on 2 January 1956. At the BM(NH), his first day in the job, as we read from his daily logbook, was spent meeting the Museum Secretary and being introduced to his duties by the Keeper of Mineralogy, G.F. Claringbull and Miss Sweet, the Mineral Curator. During these early years in London he was still serving in the Royal Auxiliary Air Force at weekends. Early papers settling some taxonomic problems were followed by a period of publishing inactivity between 1960 and 1968 during which time a large part of his work and energy must have been devoted to becoming familiar with the collections and making new contacts. During this period he was also occupied with curation of the Russell and Kingsbury collections of British minerals and the important Smith and Key Collection. Indeed, it is in this aspect of development of the mineral collection where he will be seen to have had a lasting influence on the Mineralogy Department.

Although Peter had a razor sharp intellect, he had a butterfly mind, with a streak of perfectionism which led him to start many projects but to finish and publish relatively few. In this he took a somewhat perverse delight, but it was his view that although robust inquiry was worthy in itself, publication was merited only for the most significant findings, and at a time to suit the author rather than the publisher. This ultimately had negative implications for his career. He was a truly independent spirit in the age of the corporate functionary and was labelled as a loose cannon by management. Peter's ambition to be Keeper of Mineralogy was never fulfilled.

Towards the end of the 1960s Peter struck up a fruitful partnership with Max Hey and they worked on the new Tsumeb minerals, ludlockite and keyite, together. Their classic work on mineral type specimens was published in 1970. A visit to the USA in April 1962 for the International Mineralogical Association congress in Washington was the forerunner to an invited visit to the Tucson Mineral Show in 1970 and a subsequent tour of North America (notwithstanding the complexities of making a case for such a visit at that time). With further visits in the early 1970s it was to be in North America where he made a permanent impression and made many contacts among curators and dealers. The late Sid Williams of Phoenix, Arizona was one important contact who was invited to spend time at the BM(NH). He helped to characterize a number of new minerals including embreyite ($\text{Pb}_5(\text{PO}_4)_2(\text{CrO}_4)_2 \cdot \text{H}_2\text{O}$), which was named in 1972 in honour of Peter's contributions to mineralogy. The visits to North America had also given Peter the stimulus and knowledge of the markets to begin to exchange specimens with dealers and collectors, a radical step that ensured the collections continued to develop even at a time of inadequate purchase grants.

From 1973 to 1975 Peter served on the Council of the Mineralogical Society and was a member of a sub-committee which organized celebrations at the Royal Society for the centenary on 7–8 April 1976. Around this time he was also elected a Fellow of the Mineralogical Society of America. In the mid- to late-1970s, although his career ambitions had largely been stymied through lack of publications, Peter continued to work closely with Max Hey and Eva Fejer, producing lists of new minerals and a *Second Appendix to the Chemical Index of Minerals*. When Max Hey retired, Peter took over as UK representative on

the Commission on New Minerals of the International Mineralogical Association. He was respected for the diligent and forensic approach to the new mineral proposals that came before him for comment and for his willingness to call on the expertise of colleagues where required. In 1977 he wrote the foreword to the facsimile reprint of Greg and Lettsom's *Manual of the Mineralogy of Great Britain and Ireland*, which included the supplementary lists of British mineral species by L.J. Spencer (lists 1–3) and himself (list 4). This landmark publication has been made obsolete only recently by the monumental *Mineralogy of Britain and Ireland* by Andy Tindle (2008). Peter was also a consultant for mineralogical terms to the *Oxford English Dictionary* and to *Encyclopedia Britannica* for much of his professional life.

As Head of the Mineralogy and Crystallography Section, Peter had considerable influence over the appointment of many people to the Department of Mineralogy and their subsequent successful careers. The late Alan Criddle who had been taken on to study the optical properties of opaque minerals worked with Peter in defining some error problems in refractive indices and absorption coefficients derived from reflectance measurements. This involved a lot of calculations and illustrated another of Peter's talents and interests: computing. As well as desk top and hand held computers, Peter was also the first in the Department to own a word processor and he had the whole of Hey's *Chemical Index* character-read by one of the few machines in the country at the time in Cambridge.

I first met Peter in April 1977, shortly after embarking on a PhD, and he impressed me with his kindness and obvious interest in my work in the Lake District. This initial contact led on to my appointment as an ore mineralogist in 1980 and it was my turn to be "eternally grateful". On arrival in London I joined the W14 mafia, the small group of colleagues which included Peter, Alan Criddle and Eva Fejer, who had made their home in this convenient postcode. Morning coffee in Peter's office, especially when Max Hey or any other visitors were around, was often memorable either for humorous banter which could include limericks in Greek or Latin or for Peter testing our knowledge on some obscure aspect of the science. He had the ability to be witty and withering at the same time. I well remember a manuscript submitted for internal peer review coming back with a comment "Prose style serviceable, but not entirely deathless".

As part of his family had its origins in Cornwall, Peter planned a book on the mineralogy of southwest England. An opportunity came towards the end of the 1980s and the result was *Minerals of Cornwall and Devon*, a collaboration with Bob Symes published jointly by the Mineralogical Record and the BM(NH). This was the first in the "*Minerals of...*" series, as these works on the topographic mineralogy of Great Britain have become known. *Minerals of Cornwall and Devon* was a great success and although no reprint has yet appeared, correspondence suggests that this was being considered as early as 1995.

Peter could be bad-tempered and curmudgeonly, a misogynist and a misanthrope; he had a wicked sense of humour, erring towards the politically incorrect genre of double entendres, jokes and insults. A man of many contrasts and contradictions he could, more importantly, also be inspirational and was very generous with his time and money. In particular, he took great delight in the purchase of rare books for the BM(NH) library. Over the years he had many interests, hobbies and causes, some of which were related to mineralogy or mining, others to DIY, politics and the media. In no particular order these included the pipe organ, which he had presumably learned to play during his time at Oxford, and his love of Bach organ music (preferably played as loudly as possible). For a time in the 1960s his house was used for services of the Metropolitan Community Church. He hosted visits from numerous mineralogists from around the globe, among the more notable of these were John and Marje Sinkankas, Si and Ann Frazier, Al McGuiness, Dick Bideaux, Ken and Natasha Hosking, Cliff Frondel, Fabien Cesbron, Sid Williams, Bob Gait and Tom Vallance. While most of his own living quarters in his house were still under construction as an ongoing project, his visitors' room was always kept immaculately clean and ready for occupancy. He played an active role in Hammersmith and Fulham Ratepayers Association and it was no particular surprise when he joined the United Kingdom Independence Party, but this was an antidote to Brussels bureaucracy rather than in any xenophobic context; the Union flag flying from an upstairs window became a feature of 19 Edith Road from the 1990s until his death. His interests in Cornwall led to him giving substantial financial support over the years to the Royal Geological Society of Cornwall, the Royal Institution, the Trevithick Society and he also,

rather optimistically, purchased shares in South Crofty and Geevor tin mines which he held until they closed after falling victims to the tin crash of 1985. Another interest related to southwest England was in pumping engines and he was a Patron of Kew Bridge Steam Museum.

After his early retirement in 1987 Peter worked for a while on research for a proposed book on goniometers, but his interest in this and other aspects of mineralogy gradually waned. He was devastated and felt utterly betrayed when the Kingsbury fraud was revealed, being as much a victim as anybody in that his own field collecting had been brought to a halt due to lack of confidence in finding anything of significance compared to the ‘finds’ of Arthur Kingsbury.

For around forty years of his life he had been a 60-a-day chain smoker. Suddenly, in late 1989, possibly in an attempt to lessen the shakiness in his writing hand he gave up coffee and stopped smoking completely. The effects were immediate. On 21st March 1990 he wrote to John Vallance:

“...Don’t ever stop smoking. About thirteen weeks now, and I still feel like a zombie leucotomized with a rusty spoon. No power of concentration etc., etc., and more grossly overweight than ever in spite of all food tasting disgusting...”

In August 1992 he wrote:

“...though never of slim build – I’ve become disgustingly fat since I stopped smoking 2½ years ago; all these nosy busybodies who urge people to stop smoking never bother to mention that it requires at least ten times as much willpower to lose weight. Nicotine speeds up the metabolic rate, sharpens the mind, and soothes the temper...”

Another interest during his retirement saw him in the late 1980s join the HPCC (Hewlett Packard Computer Club) which used to meet regularly at Imperial College. Here he met a new circle of friends and returned to his mathematical roots working on the matrix capabilities of HP hand held computers.

He was greatly concerned during the redevelopment of the Earth Galleries (as the old Geological Museum had become after merger with the BM(NH) in 1985) that the collections would be degraded and there were plans at one stage to turn the Mineral Gallery into a stuffed bird mausoleum. His fears for the future of the mineral collection at the Natural History Museum

have so far proved groundless. The Mineral Gallery is not currently under threat, mineral acquisitions are healthy and the curatorial staff are enthusiastic and knowledgeable. This is largely because of the groundwork he laid, the interest he took in people, his belief in the contribution of collectors and amateurs, and his philosophy that collections should develop and not ossify. This is his legacy to his successors and our grateful heritage.

Peter leaves a brother, Cyril, and a sister, Jennifer as his closest relatives as well as many friends. There can be no doubt from the many comments, anecdotes and tributes on mindat.org that most of those who knew him will miss him deeply.

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