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IN MEMORIAM: VAGN FABRITIUS BUCHWALD

Vagn Fabritius Buchwald, a pioneering Danish metallurgist, meteoriticist, and scholar of ancient iron, passed away on April 22, 2025, at the age of 95. His life and work left a deep and lasting imprint on planetary science, archaeology, and materials research—not only through his discoveries and writings, but also through the care, patience, and humility with which he pursued them.

Born in Copenhagen, Denmark, on June 23, 1929, Vagn began his formal studies in metallurgy at the Technical University of Denmark (DTU; then Danmarks Tekniske Højskole), where he received his MSc in engineering in 1954. After completing 18 months of military service, he returned to DTU in 1955 as an assistant lecturer. He was promoted to associate professor in 1961 and full professor in 1974, a position he held until his retirement in 1998. Throughout his academic career, Vagn helped shape Denmark's scientific education in metallurgy and was widely respected for his mentorship, clarity of thought, and generosity with his time. He was also closely affiliated with the Geological Museum (now part of the Natural History Museum of Denmark), where he curated meteorite collections and pursued some of his most enduring research.

Those who worked with Vagn remember him not only for his scientific achievements but for his warmth, humility, and keen interest in others. He had a talent for making students and colleagues feel heard and supported—whether in the classroom, the field, or over handwritten correspondence filled with encouragement and insight. He was especially admired for his ability to explain complex materials science in plain, engaging terms, often laced with humor. In fieldwork settings—from Arctic expeditions to remote archaeological sites—he brought not just scientific acumen but camaraderie and curiosity, always eager to learn from others and from the materials themselves.

Vagn Buchwald was widely recognized as one of the world's foremost authorities on iron meteorites. His magnum opus, the three-volume *Handbook of Iron Meteorites* (1975), catalogs and discusses nearly 600 iron meteorites and remains a foundational text in meteoritics today. Its combination of rigorous structural, chemical, and metallographic analysis is still unmatched, and the work is still affectionately referred to as “the Buchwald” among planetary scientists (the publication is available online here: <https://evols.library.manoa.hawaii.edu/communities/dce03342-76c0-4122-a7a0-a681c9b87167>).

In 1963, Vagn took leave from his academic duties to work as a liaison officer at Thule Air Base in northwestern Greenland, motivated by a desire to explore the region around Cape York. During his spare time, he conducted solo hikes across the terrain, searching for fragments of



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the Cape York meteorite. It was on one of these hikes that he discovered the Agpalilik meteorite—a 20-ton iron mass later known as “The Man.” In subsequent years, he organized expeditions to recover it and succeeded in transporting it to Copenhagen in 1967. He donated it to the Mineralogical Museum, where it remains a highlight of the collection. His insistence that a large slab be cut from Agpalilik revealed macroscopic structures and chemical features unique among iron meteorites. That slice—still the largest meteorite slab in the world—offered unprecedented insight into the internal structure of planetary iron cores.

His research also spanned terrestrial iron systems: from the microscopic textures of Norse iron artifacts to the chemical fingerprints of slag from Iron Age Denmark and medieval Greenland. His interdisciplinary studies linked materials science with archaeology and history in ways that helped define the emerging field of archaeometallurgy. In 2005, he published another significant book entitled *Iron and Steel in Ancient Times*. In recognition of his contributions, Vagn was elected to the Royal Danish Academy of Sciences and Letters, was a foreign member of the Finnish Academy of Science and Letters, served as President of the Meteoritical Society (1981–1982), and was honored with the naming of asteroid (3209) Buchwald. In 1992, he was the main organizer of the Meteoritical Society annual meeting in Copenhagen. Even after his official retirement (in 1998), he remained intellectually engaged, notably through a project titled Danmark før Danmark (“Denmark before Denmark”), which explored gold, Goths, and iron technology in the early history of northern Europe.

Vagn met Kirsti Canth in Finland, where he had traveled as a young volunteer to support reconstruction efforts following the Winter War and World War II. They married in 1957, and their home became a place of quiet hospitality and intellectual exchange—a reflection of the values they shared: curiosity, humility, and human connection.

Vagn Buchwald leaves behind a substantial body of work that will continue to serve researchers for generations. His work on iron meteorites was of enormous influence for the meteorite community. His three-volume handbook remains an essential reference, his field discoveries continue to yield new insights, and his approach to bridging materials science with archaeology has opened pathways others still follow. Beyond his scientific contributions, those who knew him will remember a generous mentor and colleague who brought both rigor and humanity to his work.

Submitted by **Martin Bizzarro, Christian Koeberl, and Henning Haack.**

This article can also be found online at the Meteoritical Society webpage: <https://meteoritical.org/news/vagn-fabritius-buchwald-1929-2025>.

THE BARRINGER FAMILY FUND FOR METEORITE IMPACT RESEARCH

The Barringer Crater Company has established a special fund to support field work by eligible students interested in the study of impact cratering processes. The Barringer Family Fund for Meteorite Impact Research will provide a number of competitive grants in the range of \$2,500 to \$10,000 in support of field research at known or suspected impact sites worldwide. Grant funds may be used to assist with travel and subsistence costs, as well as laboratory and computer analysis of research

samples and findings. Masters, doctoral, and post-doctoral students enrolled in formal university programs are eligible, as well as early career researchers within 10 years of obtaining a PhD. Application to the fund will be due by **1 April 2026**, with notification of grant awards by **1 June 2026**.

Additional details about the fund and its application process can be found at: <https://meteoritical.org/grants/barringer-family-fund-meteorite-impact-research>.