



Société Française de Minéralogie et de Cristallographie

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OBITUARY FOR RAYMOND KERN (1928–2014)



Prof. Raymond Kern in his office at the Centre Interdisciplinaire de Nanoscience de Marseille (CINaM)

Professor Raymond Kern, a world-class expert in crystal growth, passed away on 6 November 2014. The crystal-growth community has lost not simply one of its most pre-eminent leaders but also a man who possessed rich human qualities.

R. Kern started his career in 1949 as a chemist at the Laboratory of Mineralogy and Crystallography (LMC) in Strasbourg (France) where he defended his Docteur-ès-Sciences thesis in 1953 on the habit of ionic crystals grown from solution, especially the role that supersaturation and additives played on the morphology of alkali-halide crystals. He then moved to the LMC of Paris-Sorbonne, headed by Jean Wyart and where he met Hubert Curien, with whom he worked on a

crystallographic theory of crystal twinning. There R. Kern adopted the vectorial treatment of crystallography, which became the trademark of his whole approach to teaching the subject throughout his career.

In 1959, R. Kern was appointed professor in Nancy, where he founded his first lab and applied theory and experiment on solution-growth topics to problems of nucleation, focusing on the key role that adsorption phenomena play on growing or inhibiting crystal faces. In 1964, he co-authored a book with Alain Weisbrod that was, for decades, “the bible” for young Earth scientists: *Thermodynamique de base pour minéralogistes, pétrographes et géologues* (Masson & Cie). R. Kern

worked with the crystal-growth specialist Boyan Mutaftchiev; they focused on adsorption phenomena and wetting properties of minerals, which led to a better practical improvement of ore processing by flotation.

In 1966, R. Kern moved to Marseille University (France) where he founded the Centre de Recherche sur les Mécanismes de la Croissance Cristalline (CRMC2) at the Centre National de la Recherche Scientifique, and thereby initiated the “golden age” of crystal growth research in France. At the CRMC2, physicists, chemists, biologists, and geologists worked together to explore all facets of crystal-growth science, including industrial and medical applications. R. Kern co-founded the *Journal of Crystal Growth*, the first international journal on the subject. In 1981, he was elected as head of the Société Française de Minéralogie et de Cristallographie. He maintained a keen interest in crystal science right to the very end; even then he was working on elastic strain phenomena at steps on crystal surfaces.

Related to his exceptional qualities as a founder of modern crystal growth, R. Kern had a very strong personality, such that an indifferent opinion of him was not possible. His office door was always open to discuss with one and all, scientific or personal problems. He loved classical music, literature, gardening, and good food, all of which he loved to share with his co-workers. He did, like all of us, have a few pet peeves, among them a strong dislike of television and computers.

In his passing, Raymond Kern leaves behind an unforgettable legacy, both in the science that he pioneered and in the person that he was.

Alain Baronnet, Aix-Marseille University
Centre Interdisciplinaire de Nanoscience de Marseille (CINaM)

TREASURES OF THE EARTH: A NEW MINERAL EXHIBIT IN THE HEART OF PARIS

The Muséum National d’Histoire Naturelle (MNHN) in Paris has just reopened its permanent exhibit entitled *Trésors de la Terre* (Treasures of the Earth) and we thank the French oil company Total for generously sponsoring the new exhibit.

The MNHN, founded in 1626, was home to some of the most famous mineralogists, crystallographers, and gemologists of all time, including René-Just Haüy (1743–1822) and Henri Becquerel (1852–1908). The collections have benefitted greatly from prestigious donations: the French Crown Jewels, including the Grand Saphir (135.74 carats) belonging to King Louis XIV of France (1669); the impressive Florentine *pietre dure* tables (16th–17th century); some of the first pre-Columbian artefacts to enter a western collection (an obsidian Inca mirror, 1737); the first scientifically studied meteorites (L’Aigle, 1803); and many mineral type-specimens, including the first ever diopside (Haüy, 1797). The MNHN owns the world’s best collection of giant crystals (including quartz, topaz, amazonite, beryl, etc.).



The giant crystal alley, central core to the Treasures of the Earth exhibition.

Some 600 spectacular mineral masterpieces are now forming the modern exhibition of Treasures of the Earth. A central alley shows off the giant crystals and four panels dedicated to explaining the mineral kingdom: definitions, classifications, crystallography, and optical properties, as well as the formation of the Earth. These aspects are illustrated using the best specimens in the collection, as well as having informative presentations on nearby touch pads. Three other sections explain the interactions between the mineral kingdom and man: gems, precious metals, and the French Crown Jewels and precious artefacts from the French royal collections.

The section about the history of the mineral collections highlights how the royal apothecary, founded in 1626, was transformed into an unparalleled “King’s Cabinet of Curiosities” during the 18th century. The last two sections deal with an exclusive selection of the rarest meteorites and of “dream stones” (梦石, meng shi) from Roger Caillois (1913–1988).

For information, please see www.galeriedemineralogieetgeologie.fr or contact François Farges (farges@mnhn.fr).