

AN OUTLINE OF THE LIFE OF RENÉ-JUST HAÛY

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RENÉ-JUST HAÛY, commonly known as the Abbé Haüy, from his having been an honorary canon of Notre Dame, was born at Saint-Just, a small market town in the department of the Oise, on the 28th of February, 1743. His parents were poor, his father being a humble weaver. The boy's love of singing and music was the means of drawing attention to him in his native town. On the advice of a Premonstratensian prior his mother took him to Paris, where the kindness of friends enabled young Haüy to secure the post of chorister in a church of the quarter Saint-Antoine. The interest of his patrons later secured for him a scholarship in the college of Navarre, where he studied simultaneously the ancient languages and the sciences, particularly physics. His industry and good conduct at the college gained him further notice, and he received the appointment of mastership of the fourth class in Latin in his twenty-first year. Some time later he was transferred to the college of Cardinal Lemoine in a similar but higher capacity.

At this college Haüy became the friend and companion of Charles François L'Homond or Lhomond, one of the regents and a distinguished botanist. This friendship led Haüy to take up the study of botany, in which he obtained considerable proficiency. The pursuit of this study necessitated frequent visits to the *Jardin du Roi* (now the *Jardin des Plantes*.) On one of these visits he was led to attend a lecture on mineralogy by Daubenton, where, as Cuvier says, "he unexpectedly found himself in the presence of a new object of study, more congenial to his first taste for physics than even that of plants."

Happening to let fall a beautiful specimen of calcite belonging to a friend, M. De France du Croisset, he was led by examination of the fragments to the geometrical law of crystallization associated with his name. The conformity of the superposed layers of crystalline matter with the planes of the central polyhedron had revealed to him the secret of their development, and caused him to cry out "*Tout est trouvé*" (all is found). He was the first to show that the structure of crystals is regulated by

invariable laws, thus putting the study of crystallography on a scientific basis. "From the moment," says Sir John Herschel, "that the genius of Haüy discovered the general fact that they could be cloven or split in such directions as to lay bare their peculiar primitive or fundamental forms, from that moment mineralogy ceased to be an unmeaning list of names, a mere laborious cataloging of stones and rubbish."

The value of his discovery, the mathematical theory of which is given by Haüy in his *Traité de minéralogie*, was immediately recognized by Daubenton and Laplace, and on their advice it was communicated to the French Academy in November, 1783, and published in the following year under the title: *Essai d'une théorie sur la structure des cristaux, appliquée à plusieurs genres de substances cristallisées*.

Haüy also greatly increased our knowledge of pyro-electricity by his work on the "*Théorie de l'électricité et du magnétisme, d'après les principes de M. Aepinus*," published in 1787. When the Revolution broke out in 1792 Haüy was thrown into prison for refusing to take the required oath, and for a time his life was in danger. From this peril he was saved by the intercession of his friend and pupil Étienne Geoffroy Saint-Hilaire, and the remark of a citizen, that "it were better to spare a recusant priest, than to put to death a quiet man of letters."

In 1794 the Convention appointed him keeper of the cabinet of the School of Mines, and it was in this capacity that he prepared his principal work, *Traité de minéralogie*, published in four volumes in 1801. (An *Extrait* of this work had appeared in 1797.) In 1802, under Napoleon, he became professor of mineralogy in the Museum of Natural History, and in the following year, at the request of the government, he prepared his *Traité élémentaire de physique*, a work which passed thru three editions during the author's lifetime. Many honors were showered upon him by the rulers of different European states, but amidst all he preserved the modest simplicity which had distinguished his early life. By the government of the Restoration he was deprived of his appointments and pension, and his latter days were in consequence clouded by poverty. The strong courage and high moral qualities which had helped him in his youth did not desert him in his old age, and he lived cheerful and respected till his death in Paris, from the result of a fall, on June third, 1822.