

Dedication to Clement August Baar

It was as a geologist that Clem Baar approached the problems of rock-mechanics, and it was as a geologist that he first made an impression on the scientific world more than thirty-five years ago. His work in the potash deposits of Germany is still cited in any serious study of mineralogy and geochemistry of similar deposits elsewhere: he was the first to recognize that both halite and anhydrite could form as reaction minerals during the metamorphic transformation of primary sequences; he established that bromine could be used as a stratigraphic indicator and as a guide to changes affecting primary potash parageneses; with Robert Kuhn he showed how geochemistry could be used to resolve the problem of primary or secondary origin of evaporite sequences, in this case the Tertiary evaporites of the Rhein Graben.

Significant though these studies were, it was in the field of rock-mechanics that he made his biggest impact. In the early fifties he began to be interested in the structural problems of mines, and attempted to monitor intracrustal pressure by measurements of the pressure of carbon dioxide in inclusions in salts. After he migrated to Canada in the early sixties, he continued both his geological and his mechanical investigations, the latter culminating in his book: "Applied Salt-rock Mechanics" in 1977. The book has been described as "Baar versus the Establishment", because he took the iconoclastic view that the strain-hardening observed in the laboratory did not occur in nature, and that the principles of rock-mechanics break down when dealing with a material as unusual as rock-salt. The matter is still controversial, but in the manner of the classical geologist, Baar based his case on meticulous observation in mines, not on calculations in a laboratory.

For his contributions to the study of potash-bearing evaporite sequences, and for his geological analysis of the problems of rock-mechanics, this section of the Proceedings is dedicated to Clement August Baar.

Robert Evans.