

Life and the environment during the Cretaceous

Editorial

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This special issue of *Cretaceous Research* is dedicated to Jürgen Remane, former professor of stratigraphy and paleontology at the University of Neuchâtel, who died on November 15, 2004. With the passing of Jürgen Remane, Cretaceous specialists and geoscientists in general, lost a scientist of international reputation, a gifted teacher, and—above all—a good friend.

Born 1934 in Kiel, Germany, Jürgen quickly became attracted by natural sciences, following the footsteps of his father, a professor in zoology at the Universities of Kiel and Halle. In 1954, he graduated in Plön and enrolled at the University of Kiel and subsequently at the University of Tübingen. After having passed the “Vordiplom,” he spent a year at the University of Grenoble, where he obtained a diploma “d'étude supérieure en géologie.” He returned to Tübingen, where he started a Ph.D. thesis under the direction of professor Schindewolf. Several times during his graduate studies, he worked abroad, in particular together with the Swedish Geological Survey. In 1962, he earned his Ph.D. degree and took an assistant position at the University of Göttingen.

In 1969, he was employed as “chef de travaux” at the University of Neuchâtel. He was nominated “privat-docent” in 1970, “assistant professor” in 1971, and finally “professor” in 1978. He also taught at the University of Geneva and in Linares, Mexico. When he arrived in Switzerland, he strongly considered a career in his home country. He changed his plans, and declined an attractive offer from one of the most prestigious universities of Germany.

At the University of Neuchâtel, he taught micropaleontology, paleontology, and stratigraphy. He did this in the broader perspective of Earth history and the evolution of life. Thereby he followed the tradition of Louis Agassiz, one of the founders of our University. His pioneering work on Calpionellid biostratigraphy in uppermost Jurassic and Lower Cretaceous sediments of the Tethys is one of his best known research contributions. Through his general expertise in the evolution of fossil faunas and their use as biostratigraphical tools he became attracted by research groups establishing geological time scales. His broad experience in the fields of geology and zoology, his active participation in the recognition and solution of stratigraphical problems and his perfect command of different languages quickly made him a privileged personal contact. First member of one of the numerous international stratigraphical sub-commissions, he was soon nominated general secretary and subsequently president of the prestigious International Commission of Stratigraphy. In this position he laid the foundation for the progress ICS made by establishing a stable chronostratigraphical calibration of the stages. Jürgen was able to cope well with the evolution of

thinking amongst his colleagues within his discipline and he successfully navigated ICS through occasionally rough waters. Parallel to his international responsibilities, he remained very active as researcher and teacher, as is shown by his numerous articles published in international journals and by the number of diploma and Ph.D. students he has guided.

In 1997, he became chief editor of *Eclogae*, the journal of the Swiss Geological Society, and had occupied this position until the very end of his life, despite a long and difficult illness. This responsibility allowed him to stay in contact with the scientific world throughout his whole retirement.

His friends and colleagues will remember him as a man of exemplary scientific rigour and intellectual integrity, and—above all—as a jovial and very generous person (Fig. 1).

The Cretaceous period was one of the main focus of interest of Jürgen throughout his life, and so he accepted voluntarily to actively take part in the organisation of the 7th International



Fig. 1. Jürgen Remane, during a short fieldtrip with former school friends in August 2004.

Symposium on the Cretaceous. Unfortunately he did not have a chance anymore to participate in the symposium, which took place from 5 to 9 September 2005 in Neuchâtel.

This special volume contains 27 manuscripts, which resulted from a selection of contributions to this symposium. The conveying theme of this special volume is "life and the environment during the Cretaceous" and the contributions included in this volume are a good reflection of our present-day knowledge of environmental and evolutionary processes characteristic for the Cretaceous, and provide a valuable interface with the interests of Jürgen Remane throughout his career. We therefore dedicate this volume to his memory.

The volume starts with two general contributions on the Cretaceous, in which the peculiarities of oceanic and atmospheric conditions and their environmental repercussions are discussed for the Cretaceous ice-free world (Hay), and in which the importance of anoxic events and nutrient availability is stressed for evolutionary change during the Cretaceous (Keller). This volume continues with a series of more specific contributions, which concerns (1) the detection and description of Cretaceous oceanic anoxic events in various regions of the world (Barbu and Melinte, Amodio et al., De Gea et al., Michalik et al., Duque-Botero and Maurasse, Wagreich et al., Keller et al., Tantawi, Mort et al., Melinte and Bojar) and its possible origins simulated in a numerical model (Misumi and Yamanaka); (2) general pattern in life and evolutionary trends and their biostratigraphic utility during the Cretaceous shown by such different groups as pollen and spores (Tripathi, Götz et al.), planktonic and benthic foraminifera (Mandic and Lukeneder, Hart, Pardo and Keller), belemnites (Mutterlose and Wiedenroth, Wilmsen), inoceramids and ammonites (Ifrim and Stinnesbeck), arthropods preserved in amber (Néraudeau et al.), and verte-

brate remains (Vullo and Néraudeau); and (3) regional reviews of Cretaceous sediments with connotations to general developments in the Cretaceous environment (Dinis et al., Castro et al., Molina and Vera, Godet et al.).

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