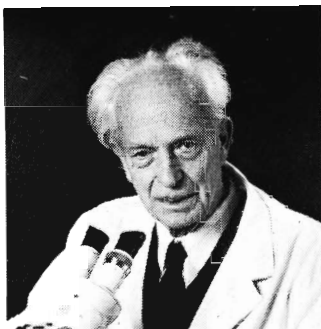


## OBITUARIES

### HANS SCHAUB



1913-1994

On 3rd of October, shortly after his 81st birthday, Professor Hans Schaub peacefully died in a Basel hospital, a finished manuscript for correction on his lap. A couple of days before, he had actively participated in the IGCP 286 final meeting in Aspet, southern France, and had introduced a student to field work in the Campo key-section in northern Spain.

Born in 1913 in Binningen, then a village on the outskirts of Basel, he was educated to become a teacher for mathematics and geography at middle and high school. Beside his teaching activities at the Realgymnasium in Basel, he extended his studies at the Geological Institute of Basel University to Geology and Palaeontology. His PhD thesis, delayed by long military service during World War II, focussed on the nummulites of the Schlierenflysch in order to interpret the age of this long turbiditic sequence of prime importance for understanding Alpine tectonics. Illustrated by numerous camera lucida drawings, his thesis - printed in 1951 - represents the first modern standard monograph on the genera *Nummulites* and *Assilina* and its numerous species. The biostratigraphic distribution of the nummulites in the Schlierenflysch sedimentary sequence documents a succession of two main assemblages of species through time. Previously, similar assemblages and their species had been described in the Aquitaine Basin (southern France) where they occur respectively in the eastern and western part of the Basin. No stratigraphic relationship between the two assemblages had been observed in the Aquitaine. Their age relations, based on molluscs had been misinterpreted in inverse

order compared to the sequence of faunas in the Schlierenflysch. A lively discussion, mainly with French workers, arose about this discrepancy and resulted in the proposition of a new stage name, the Ilterdian, for the time period represented by the earlier Schlierenflysch and Eastern Aquitaine assemblage.

Hans Schaub's biostratigraphic conclusions derived from the Schlierenflysch succession were supported first by parallel investigations on alveolinid species and confirmed soon after by the rising nannoplankton (*Discoaster*) stratigraphy. The biostratigraphic success in the Pyrenean realm confirmed the species concept conceived by Boussac for *Nummulites* and carried through for biostratigraphic use by Hans Schaub: Multiple, parallel phylogenetic lineages evolving with different rates of progress through geological time. With the accurate registration of external and internal shell morphology of numerous specimens reproduced as drawings or photographs at standard enlargements for simultaneous comparison, the much enhanced resolution power of the palaeontological taxonomy permitted a regular biozonation subdividing the stages (previously used as time units) into 3-6 zonal subunits each representing roughly one million years. Since the late fifties, Hans Schaub continued to elaborate the phylogenetic and biostratigraphic system of the *Nummulites* extending also his area of research to all circum-Mediterranean countries.

A visit to the type sections on the Crimean peninsula, as well as the study on material collected

by oil companies from Libya contributed much to complete an overall picture of this exceptionally frequent and successful genus with its over 400 species evolving through 21 million years. The material collected during a lifetime from all over the western Tethyan realm is stored in the Basel Museum as a carefully cured, huge collection of free shells of most known species of nummulites and assilinas accompanied not only with numerous prepared specimens from many localities but also with thousands of photographs.

Hans Schaub published his life-time's work as a monumental, amply illustrated monograph in 1981. He has lived long enough to observe the international response to his book and to become assured of its standard value for many decades to come. His last manuscript on the nummulites of Israel will provide a valuable complement to his 1981 monograph where only a part of the faunas characterizing the North African faunal province are described. In 1940, the large-sized monograph series of the Swiss Palaeontological Society was separated from the latter and changed its name to "Memoires Suisses de Paléontologie". The original numbering of the volumes was kept up nevertheless. Being the youngest member of the previous board, Hans Schaub took over the heavy task of an editor for all the volumes 63 to 107 published between 1942 and 1984, with the support of a new board elected directly by the Swiss Academy of Sciences. For more than four decades, Hans Schaub has managed to keep up the traditional, extraordinary quality of reproduction of the plates characterizing the "Memoires Suisses" up to the present day, in spite of changing concepts of publication in the scientific community as well as the dramatic change in printing technology and management. Thus, Hans Schaub provided a generation of Swiss palaeontologists with exceptional means of publication for which we all are particularly grateful.

For many decades up to his last years, Hans Schaub participated in mapping the Alpine geology on sheet 379 Alpnach for the Geological Atlas of Switzerland on behalf of the Swiss Geological Commission. His last scientific grief was to have to leave his maps unfinished.

In 1958, Hans Schaub entered the staff of Basel University and received his professorial title one year later together with his directorial functions at the Natural History Museum of Basel, the largest of its kind in Switzerland. His lectures at the University covered general Earth History and in particular also Palaeogene alpine stratigraphy and nummulite palaeontology and biostratigraphy. As director of the Museum he succeeded in transform-

ing the somewhat sleepy curio cabinet into an institution promoting a scientific dialogue with the public and supporting modern research.

Much of his time was devoted to realize the huge underground storage rooms built as air-raid shelter under the still lively impression of what had happened to German museums during World War II. Ample, additional storage room was the prerequisite to disengage the show rooms of the museum from their vast and important scientific collections in order to gain space for modern exhibitions.

For many years, Hans Schaub represented Switzerland on the board of the so-called European Micropaleontological Colloquium organizing sampling trips to European type key localities in order to provide research laboratories of oil companies and universities with identical material, a kind of intercalibration exercise. Nobody other than a nummulite specialist would know better how important the availability of topotype material may be for identification or revision of ancient taxa on the species level. The 9th European Colloquium was organized in Switzerland by Hans Schaub and Hanspeter Luterbacher in 1965. On this occasion, they edited an excursion guide providing an overview of the Swiss microfossil assemblages by a common effort of all Swiss micropaleontologists active at that time. These common trips were also a valuable means of mutual stimulation between academic and applied research involving also Hans Schaub as a specialist of shallow water Palaeogene biostratigraphy in questions of applied geology. Hence, he supervised, for instance, Roger Lehmann in writing and illustrating an extensive report on *Nummulites* for Exxon.

Hans Schaub, unconditionally opposed to nazism during World War II, committed himself to politics as a member of the socialist party and represented the latter in the Basel parliament from 1964 - 1976. He was a member of the Basel educational council from 1954 to 1984.

Country life was Hans Schaub's main recreational activity. His comfortable farm house far from town will be remembered by many colleagues visiting his hospitable permanent residence.

The profession loses a colourful, good humoured and equilibrated, very hard working colleague loyally supported in his multiple and often tiring tasks by competent professional assistance and by a courageous and understanding wife.

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