

## Dr Amnon Rosenfeld (1944–2014)

We dedicate this set of papers on *Cyprideis* to our colleague and friend Dr Amnon Rosenfeld, who was killed in a tragic traffic accident on 10 July 2014 and is no longer with us.



Amnon was born on 17 December 1944 in Haifa. He studied in the ‘Hugim’ High School in his home town and subsequently completed an MSc degree in Geology at the Hebrew University in Jerusalem in 1970, working on Cenomanian–Turonian ostracods from Israel. He was then appointed chief researcher for ostracods in the Palaeontological Division of the Geological Survey in Jerusalem. He completed his PhD at Kiel University in Germany in 1976 under the supervision of Professor Kurt Krömmelbein, describing Recent ostracods from the Baltic Sea. Returning to Israel, he held his position at the Geological Survey of Israel until his retirement in 2004 and reached scientific grading ‘A’, equivalent to a university professor. Amnon was invited to spend several sabbatical visits in the UK and USA.

Amnon published his first articles on early to mid-Cretaceous age ostracod assemblages from Israel, but soon enlarged his field of experience to those of the Jurassic, where he described all the available outcrops in Israel and Sinai. Later, works on the Triassic, Paleocene/Eocene and even Late Permian followed.

Amnon was not afraid to explore Recent taxa and the structure of the ostracod shell. His work with Vesper (Rosenfeld & Vesper 1977) laid the foundation for the use of *Cyprideis* in many palaeoecological studies. The work describes the different shapes of sieve pores in different salinities on the carapace of the species *Cyprideis torosa*. This is an easy and simple way to calculate the approximate salinities in which the animals lived, and is very effective in brackish-water environments for assessing the influx of fresh water or vice versa.

This work began his interest in the building of the carapace of an ostracod and especially its pigmentation. Here he used some of the newer analytical methods pioneered by Bate & East (1972, 1975) on ostracods. He could show that the moulting of several ostracod species was preceded by the formation of a huge amount of small

calcium-phosphate granules in the epidermal cells, which he assigned to the building of the calcitic shell of the ostracod (Rosenfeld 1982).

In his further studies, Amnon showed the usefulness of his findings for palaeontological work in general. He used the form of the sieve pores in *Cyprideis* for the determination of different brackish-water or salinized environments. This tool was especially important in the area he was working mostly in, the stratigraphy of the Middle East.

His knowledge of ostracod histology gave him an opportunity to judge his palaeontological findings in a more general way. He was looking at fossil animals as living creatures and not only as remnants of a former world. This was probably also the case with his studies on the archaeological history of his country. Amnon’s deep interest in history and art led him to study archaeological findings from Israel and the surrounding countries, mainly in the later years of his career. He published important articles on the ore source of arsenic copper tools during the Chalcolithic and Early Bronze ages; the geochemistry of bronze alloys during the Middle Bronze age and the mineralogy and chemistry of a Roman medical remedy. Most important are his works on archaeometric analysis of the ‘Jehoash Inscription’ tablet, describing the renovation of the First Temple of Jerusalem, of the ‘James Ossuary’ inscription and of the first known seven-nozzle stone oil lamp from the Second Temple period. Even though he was not an archaeologist by profession, Amnon was a talented and diligent researcher also in this field; his clear purpose was the uncovering of truth, even when challenged by the ‘professionals’. But, increasingly, it has become clear that Amnon’s theories were right.

Amnon was an honest, vital man, whose presence brought joy and optimism to those who knew him. It was difficult not to be his friend. He had many good colleagues in the GSI and the international ostracod community. Amnon was always ready to help, whenever needed. Many times we had to postpone our scientific plans for the day because somebody asked him for assistance or advice.

We are very sad about his passing away and will always remember him as a true member and friend of our international ostracod world.

### References

- Bate, R.H. & East, B.A. 1972. The structure of the ostracod carapace. *Lethaia*, **5**, 177–194.
- Bate, R.H. & East, B.A. 1975. The ultrastructure of the ostracode (Crustacea) integument. *Bulletins American Paleontology*, **65**, 529–547.
- Rosenfeld, A. 1982. The secretion process of the ostracod carapace. In: Bate, R. H., Robinson, E. & Sheppard, L.M. (eds) *Fossil and Recent Ostracods*. The British Micropalaeontological Society/Ellis Horwood, Chichester, UK, 12–24.
- Rosenfeld, A. & Vesper, B. 1977. The variability of the sieve pores in recent and fossil species of *Cyprideis torosa* (Jones, 1850) as an indicator for salinity and paleosalinity. In: Löffler, H. & Danielopol, D. (eds) *Aspects of Ecology and Zoogeography of Recent and Fossil Ostracoda*. Dr W. Junk b.v., The Hague, 55–67.

**Dietmar Keyser**  
 Zoologisches Institut,  
 Hamburg, Germany  
[keyser@zoologie.uni-hamburg.de](mailto:keyser@zoologie.uni-hamburg.de)

**Avraham Honigstein**  
 Geological Survey of Israel,  
 Israel  
[ahonigstein@gmail.com](mailto:ahonigstein@gmail.com)