



## **Research between Sisyphe and Tantalos**

**Mathew H. Nitecki, Harry Mutvei, & Doris V. Nitecki. 1999. *Receptaculitids. A Phylogenetic Debate on a Problematic Fossil Taxon*. Kluwer Academic/Plenum Publishers, Dordrecht. xvii + 241 pages (hardback). EUR 79.50, USD 85.00.**

Problematic fossils have always enjoyed great interest on the part of both professional palaeontologists and a numerous group of lovers of palaeontology. One could have observed with admiration the Sherlock Holmes style methods of detailed investigations, continued for many years and by many generations of researchers, aimed at solving the problem of the systematic position of ancient organisms that cannot be classified unreservedly into one of the recognized phyla. When the available sources are merely ambiguous skeletal structures, indistinct remains of soft tissues, some mould in a sedimentary rock, or an imprint of the body outline, then the researcher's imagination and the tenacity of purpose to solve the aggravating problem furnish him/her with a set of renewed and new arguments as well as many kinds of comparisons with numerous and varied present and ancient organisms. The collections in a vast number of museums are compared and, eventually, enriched. The history of paleontology has taught us, however, that this particularly tedious process of arriving at a solution of the question of the systematic position of the problematic fossils seldom secures success. Explicit evidence cannot be substituted by even the most sophisticated reasoning, even if supported by names of renowned specialists in this field. Such evidence is not usually found due to large-scale planned investigations, but is a result of unexpected and accidental discoveries, often specimens preserved in positions atypical for a particular group of fossils, and even in the dust-covered drawers in museums.

Receptaculitids, discussed in the book in question, are a classical group of ancient problematics that several generations of paleontologists grew old studying without a positive effect. Matt Nitecki has undoubtedly proved to be the most ardent detective of the affinity of these fossils in the past century. The evidence is to be found in his books on the subject, in every one of which a thread of the same question besetting the author is resumed 'What the hell are these beasts?' It is a good thing, then, that Matthew Nitecki, Harry Mutvei, and Doris Nitecki decided to integrate their entire experience in researching receptaculitids in book format, and once again, step by step, to analyze all the pros and cons of the postulated views on the systematic position of this small group, put forward by them and other authors in the course of a more than 200-years' long history of its investigation. The eventful history of this investigation is best evidenced by a 52-pages' long list of references.

It seems that the book was prompted by the authors' own recent discovery and description of the phosphatized specimens of receptaculitids in the Ordovician deposits of Oland, which allowed for the new and unusually detailed view of the morphology of receptaculitids' skeleton, its primary mineralogy and growth, and, consequently, for the critical and detailed comparison with the representatives of the two main groups, with which receptaculitids had long been linked, i.e. sponges and syphonalean algae. However, even those uniquely preserved specimens did not provide the solution of the besetting problem of affinity of receptaculitids. In spite of the

earlier preferences of Matt Nitecki for the receptaculitids' affinity with algae, the comparison was conducted very honestly and objectively. The result is a well-balanced and, what is important, excellent and not deprived of Matt Nitecki's typical sense of humour, monograph of a group of fossils, whose systematic position will surely continue to be pondered over by new generations of paleontologists. And though another attack on the problem of the systematic position of receptaculitids has not proved successful, one should take into consideration the past of the senior author of the book – his experience as the Arnhem paratrooper – and congratulate him that this time it was not a venture a bridge too far. The book is excellent, making future investigation of receptaculitids easier to those eager to undertake it.

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