

---

## Introductory Remarks

C. M. Yonge

*Phil. Trans. R. Soc. Lond. B* 1978 **284**, 201

doi: 10.1098/rstb.1978.0062

---

### Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right-hand corner of the article or click [here](#)

---

To subscribe to *Phil. Trans. R. Soc. Lond. B* go to: <http://rstb.royalsocietypublishing.org/subscriptions>

---

## Introductory remarks

BY C. M. YONGE, F.R.S.

For many years, Norman Newell (of the American Museum of Natural History) and I (from the U.K.) had joint hopes, always discussed when we met, of promoting a meeting of workers on recent and fossil bivalves. With the institution by the Royal Society of Discussion Meetings on all aspects of science these hopes began to be possibilities. The proposition was further discussed with Dr T. E. Thompson, President of the Malacological Society of London and the enthusiastic support of that body was assured. Enquiries were then made of those most likely to make significant contributions to such a meeting. Effectively everyone expressed interest and with this assurance the Council of the Royal Society was approached with the result seen on 18 and 19 May 1977 and in this issue of *Philosophical Transactions*.

Almost all finally asked to contribute papers agreed and, with the exception of Dr O. A. Scarlato and Dr J. I. Starobogatov from Leningrad, who sent a manuscript, are here today. The participants are almost evenly divided between palaeontologists and workers on modern bivalves. And there is no group in the Animal Kingdom where contact between past and present is closer. The Mollusca are older than the fossil record with the Class Bivalvia separating very early from more primitive epifaunistic stocks. There has been a surprising persistence of many of these ancient and obviously very successful groups, a probable consequence of the appearance first of an adequate deposit feeding mechanism (as in the modern Nuculacea) and later of modifications of the original respiratory organs which elaborated these ctenidia into the most successful of all types of ciliary feeding mechanisms.

So effectively have many of these Palaeozoic bivalves, and then of the siphonate additions made in the Mesozoic, persisted that much of what we learn today by observing modern bivalves can be applied with little hesitation to animals that lived hundreds of millions of years ago. Indeed, many palaeontologists have not only taken advantage of this knowledge but have extended it by personally observing modern species. There has been an impressive growth of knowledge about palaeobiology.

Nevertheless, when it comes to classification there are obviously wide differences between the criteria available to those working with fossils and those having the organs and the secreting epithelia of the living animals for study and comparison. The publication of the papers delivered at the Discussion Meeting which represents the enduring achievement of this meeting, will bring into unusually close association many differing views and lead, we hope, to the wider understanding of a class of animals which, despite their external similarities to one another, display a remarkable degree of adaptive radiation with an unequalled propensity for convergence. The bivalves grow the more interesting the more one studies them. I have been doing so for over 50 years and am beginning to get a feeling for them. Norman Newell has suggested that this meeting might also see the beginning, in contemplation at least, of a revision, on a more comprehensive scale, of the bivalve volumes of the *Treatise on invertebrate palaeontology*. I would echo that hope.

Thanks are due to those authors who by contributing to the cost of printing their plates have made possible the publication of this report in full.

16-2