

# THE APPLICATION OF ELECTRON MICROSCOPY TO PALAEOLOGY

by M. D. MUIR *and* W. L. DIVER

THE Palaeontological Association and British Micropalaeontological Group were joint sponsors of the Symposium 'The Application of Electron Microscopy to Palaeontology' held on 11 September 1972, as a part of the 5th European Electron Microscope Congress, EMCON 72. The following four papers form part of the proceedings of the Symposium and illustrate how both the transmission electron microscope (TEM) and the scanning electron microscope (SEM) can be used in a wide range of palaeontological applications to give information on a variety of specimens that would be unobtainable by any other means. Most speakers emphasized that the reliable interpretation of electron micrographs requires supporting evidence from a thorough light optical microscope investigation.

In the general discussion that followed the meeting, it became clear that combined studies using all available techniques on a limited amount of material offered much greater returns in terms of understanding than large numbers of 'pretty pictures' produced using only one technique. Several novel preparation techniques were presented, all of them giving significantly better results than conventional methods. The short discussions printed here illustrate some of the interesting points raised at the meeting.

It was evident at the meeting that applications of electron microscopy (both TEM and SEM) will increase rapidly in all branches of palaeontology as access to equipment becomes possible for more and more palaeontologists. It is to be hoped that all new palaeontological electron microscopists will show such care in specimen preparation, instrument operation, and interpretation of results as was evident in the papers presented by the contributors to the EMCON 72 Symposium.

Department of Geology  
Royal School of Mines  
Imperial College  
Prince Consort Road  
London, SW7 2BP