nating new results in the posters. The scene is thus set for the theoretical reviews (by Osaki, Appenzeller, Zahn, Castor and Rybicki) in which the variety of sources of instability in these massive stars is displayed: radial and non-radial pulsations, interior vibrations, convection, rotation and shock waves. From this shopping list, one can select one or more of the possibilities and try to fit them to the real live articles. Why not get a copy for your library and see how much progress has been made—and get some good ideas for further research.—DAVID STICKLAND.


The objective of this IAU Symposium was to cover virtually all aspects of circumstellar matter and thus bring together observers and theoreticians from many different areas of astrophysics. The size of the proceedings and the large number of participants (183) demonstrates that this objective was achieved. Unfortunately, the verbal discussions have not been reproduced in the proceedings. This is a pity since it would have been illuminating to read the comments of the diverse collection of people present at the meeting.

The first and largest section of the proceedings covers bipolar flows, jets and protostars. The review of bipolar flows by M. Cohen provides a useful summary of evidence for this phenomenon in a wide range of stars. The next section covers Herbig–Haro objects with observational and theoretical reviews by R. Mundt and J. E. Dyson. The third section, concerning circumstellar shells and envelopes, starts with an excellent review and introduction to the IRAS project and the Point Source Catalogue by H. J. Habing. This review and the following poster papers demonstrate the enormous impact of IRAS on studies of circumstellar shells. This section finishes with the latest developments concerning circumstellar envelopes of OH/IR sources.

The next three sections concern matter more intimately related to stars: mass loss from cool stars; stellar coronae and chromospheres of cool stars; and mass loss from hot stars. The reviews covering mass loss discuss the mechanisms capable of driving the mass loss rather than the effects of mass loss on the immediate vicinity of the star. There is a number of poster papers, however, dealing with the effects of stellar winds on the surrounding interstellar medium. The next two sections covering symbiotic stars and planetary nebulae contain only poster papers and no reviews. The final section is concerned with circumstellar dust and chemistry and contains several interesting papers on mechanisms for the formation of dust grains in circumstellar envelopes.

It is evident that this Symposium has successfully covered a wide range of topics on circumstellar matter and I recommend the book to anyone who is working in these subject areas.—LINDA J. SMITH.


“Astrophysics on our own doorstep” could well be the sub-title of this compact dynamo of a book describing the flow of matter and energy from the Sun to the Earth via the solar wind, and dealing, in particular, with the physical processes governing this transfer. Unlike their astrophysical counterparts, the interactions