

Preface

The Special Session of the XXIV IAU General Assembly in Manchester originated as a proposal for a symposium devoted to the topic "Astronomy for Developing Countries" that was submitted by the Working Group for the Worldwide Development of Astronomy with the support and cooperation of Commissions 5, 38 and 46. The Executive Committee decided that the topic could be more suitably dealt with within a Special Session, the first of its kind, for which they allocated time during the General Assembly and made a financial commitment to provide travel support for the participants.

One of the stated aims of the original proposal was that the Proceedings, when published, would provide a manual for those who wish to begin (or to revive) astronomical studies in a developing country and for those in developed countries who may wish to help them. How far we have been successful in our aim is for readers of this volume to decide. Invited speakers were asked to keep the aim in mind when preparing their papers: some of them obviously have done so; others, equally obviously, have been motivated by other concerns. What we have done, however, is to bring together a wide variety of accounts from many different countries and a number of ideas about how we can strengthen astronomy research and education in those countries that want to create an astronomical tradition, either for its own sake or as a means of creating a broader scientific tradition. We have not been afraid even to include contributions by those who question whether a developing country should be trying to develop an astronomical tradition at all. I believe that this book does contain a representative picture of the worldwide state of astronomy in the year 2000.

One of the themes that emerges from the book, which is confirmed by my own experiences in many of the countries discussed, is the variety among developing countries. Perhaps, in one sense, the kind of manual we envisaged at the beginning cannot be produced because of these differences. There are small countries that have either never had an indigenous scientific tradition, or the one they had has lain dormant for at least a generation as the country concerns adjust to the recovery of independence after a century or more of colonial rule. There are countries which, judged in terms of per capita wealth are poor but, because their populations are large, can afford a considerable investment in astronomical research. There are countries which had until recently a strong scientific tradition but, as a result of political and economic changes, have been thrown back into a status something like that of newly developing countries. Finally, there is the unique case of South Africa, with a strong but largely immigrant astronomical community, which has recently seen a profound, but fortunately peaceful, political change that has brought to power a government convinced of the value of continuing and broadening that astronomical community. It should hardly surprise us that many different approaches are needed in these different kinds of country and, perhaps, one of the important fruits of our Special Session has been to bring these differences out into the open.

The last paragraph makes clear that it is impossible to discuss the theme of astronomy in developing countries without reference to the political, economic, cultural and even religious differences between them. Neither is it possible to expunge all reference to such matters from the printed record of the Session. Where such matters are discussed, the opinions expressed should be regarded as the personal views of the respective authors. The Editor of this volume, himself, does not agree with all those views (some of which, indeed, are mutually contradictory); still less should they be taken as in any way being the expression of an official position of the IAU, which, of course, maintains a strict neutrality on topics that are not within the professional competence of astronomers, however familiar some of its members may be with particular situations.

The arrangement of papers in this volume is similar to, but not identical with, the order in which they were presented during the 2.5 days of the Special Session. As anyone who has organized a meeting knows, the exigencies of the event inevitably mean that the actual order of presentation is never quite that envisaged beforehand. When the meeting is one of several parallel sessions to which many of the speakers also have commitments, it is even harder to keep to the intended schedule. I have, sometimes, restored the intended order, but I have also found, as I assembled the manuscripts, that some papers were more appropriate in other than the original positions. In particular, it became clear as the Session progressed, that there was considerable difference of opinion between the various participants as to the relative merits of astronomers in a developing country doing research with their own small telescopes or using data obtained from the Internet. We did not resolve this difference, possibly because, again, there are so many differences between countries that one solution is not necessarily right for all. We did not foresee this controversy and, perhaps, just the recognition of its existence is another important result from our Session. I have found it convenient to put all the papers that deal with this matter into one section of the book "Small Telescopes or Internet Access?" which does not correspond to a section of the original programme. In addition to these changes, I have endeavoured to interweave the poster papers that were presented in conjunction with the Session at the most appropriate places between the various invited, orally presented papers. A few selected poster papers are presented in full. Most are represented only by their abstracts. A few authors of posters neglected to sign the required copyright-assignment forms in Manchester and have not responded to subsequent appeals to do so. Their posters appear by title only. A final departure is that two papers are included here that were not presented in the Special Session. That by Abt (*Electronic Access to Journals*) was prepared by him at a time that he hoped to be present, but he was not actually able to come; the paper by Percy (*Simple Science, Quality Science*) was presented to a smaller group in Manchester two days before the Session began. It is so germane to our topic, however, that I invited Percy to submit a written version for inclusion in these Proceedings.

Participants in the General Assembly were free to come to and go from our Session as they chose, so it is difficult to give a list of those attending the Session. I have listed on the following pages, as contributors to the Proceedings, the names of those who gave invited papers and of those authors of poster papers who were subsequently invited to prepare a written version for this volume. At least one of the authors of each invited paper was, of course, present, usually

most of the time. Similarly, at least one author of each poster paper was also usually present and the records of the discussions will show that others helped to form a core of regular attenders. The Index of Countries shows that about half the member states of the United Nations were considered, or at least alluded to, during the Session and a good fraction of those countries, and possibly some others, were represented among the participants. In particular, we had representation from seven African nations at the Session – probably a record for the IAU and a tribute to the activity of the UN sponsored Working Group for Space Sciences in Africa.

It remains to thank all those who assisted in the realization of this Session. First, those who helped to formulate the original proposal. Next the IAU Executive Committee for approving the proposal in a modified form and giving it the necessary financial support. I am grateful also to all those who served on the Scientific Organizing Committee and particularly those of them who acted as Chairpersons. The past and present General Secretaries, Johannes Andersen and Hans Rickman, gave help at many stages, not least in the disbursement of grants for attendance at the General Assembly which helped several who wanted to participate to be in Manchester. I also acknowledge the contribution made by the American Astronomical Society toward the cost of publishing the Proceedings. Finally, I thank Harold McNamara and his staff in the office of the ASP Conference Publications for their assistance in the production of this permanent record of the Special Session, and my long-time friend and colleague Murray Fletcher, without whose patient help and guidance I would never have mastered the intricacies of L^AT_EX

Alan H. Batten.

The eclipse maps on pp. 104-106 were prepared by F.G. Espenak of NASA.