

FOREWORD

Seated in a sun-lit corner of his 17th century Dutch house, his hand touching a celestial globe, Johannes Vermeer's "Astronomer" seems to ponder about the mysteries of the universe. We might make the trip to Paris and ask him, in the Louvre, what precisely is on his mind. Unfortunately, there will be no answer. But we do know what his mind was not on. It was not on the approaching deadlines for the proposals he would have to write for getting funds and telescope-time, not on the meeting of the observing programs committee, not on his refereeing duty for the journal *Astronomy & Astrophysics*, nor on his university's tightening budget for science.

In the Kapteyn Institute at Groningen I stand face to face with the impressive portrait of J.C. Kapteyn, painted in the year 1918. Seated at his desk he is doing his calculations with pen, pencil and tables, perhaps checking the work of his skilled staff of human computers. Early in his career he had completed his magnum opus, the *Cape Photographic Durchmusterung* in collaboration with his close friend David Gill at Capetown, South Africa. When he wrote to Gill, he knew it would take two months or more before he would receive a reply. And having dispatched a letter to George Ellery Hale, director of Mt Wilson Observatory, he knew the reply would be due at best in four weeks. Ample time to think about the next step. This was the pace of scientific intercourse until well into the 20th century.

And on the frontispiece of a 1929 issue of *Punch*, a British magazine of long standing in pre-World War II years, we meet a plain clothed gentleman, also doing his calculations. His name: Sir James Jeans, one of the giants of 20th century astronomy, whom we owe that monumental volume *Astronomy and Cosmogony*. In his hands, a slide-rule.

Today's astronomer finds himself at the shore of an ocean of observational data accessible à la minute, he/she is amply supplied with information on programs carried out elsewhere, and with references to the work done by others. Calculations are matters of seconds. Perhaps he or she even fancies his or her growing citation index – that monstrous but seemingly unavoidable modern byproduct of research. But there is an other side of the

medal, of which the student of astronomy only gradually becomes aware. He or she is immersed in an intricate network of organizations and boundary conditions – all meant to be for his or her good. The present volume reveals the role played in that ambiance at various levels, from consultation between the astronomers themselves, to interaction at European level, to United Nations interests.

There is, first of all, the competition for observing time. Will the OPC pass the proposal and will sufficient observing time be allocated? And, once the work is done, will the editor accept the manuscript? These decisions are made with the collaboration of numerous anonymous colleagues voluntarily sharing in the tasks of OPC and editor. Tasks, so necessary in order to maintain quality and conciseness. The chapters by Abt and by Breysacher and Waelkens on these subjects reveal the size of these important ongoing efforts – shouldn't these chapters be compulsory reading for every astronomy student? A very welcome chapter – at least to me – is also the one by Grothkopf and Cummins. How many astronomers are aware of the scope of librarians' tasks and their mutual contacts when we ask them to get that rare document we urgently want?

“Il faut faire l'Europe”. With these words, my friend and colleague Charles Fehrenbach expressed what we felt in the 1950's, the early post-World War II years. The time had come to pool national resources of funds and manpower for astronomy in European countries, and create the European Southern Observatory. It would take nearly a decade, until 1962, to realize our dream. A logical next step was the creation of the European Journal *Astronomy & Astrophysics*.

The examples of, first, CERN and next ESO, were soon followed by EMBO and many other fields of science. But Europeanization was a long and laborious process. The 1950s were the first years of incubation, the years 1960 the first ones of materialization. By now, in the year 2001, the organization and funding of research in European context has grown far beyond what we intended and expected at that time. Mayer's chapter, surveying the panorama from the belvedere of the European Science Foundation describes how far this process has spread. At first sight, his Figure 1 shows a bewildering array of mutual national/European relations. Will science policy and funding gradually shift from national to international level? Haubold's chapter, looking at things from United Nations' point of view, puts the international relations in still wider context.

Eventually, the results of our research will become part of the cultural inheritance we leave for next generations. Dissemination of new insights is a slow process, in which scientists participate with varying degrees of enthusiasm. Those who devote themselves to it, aware of its far-reaching implications, deserve our admiration and support. The description by Jacqueline

Mitton of the Royal Astronomical Society's experience in this field shows numerous aspects of this work and reminds us how important it is that the professional astronomers remain involved or, at least, within reach. Closely connected with this is the project of the *Encyclopedia of Astronomy and Astrophysics*, adjustable on the Web, described by its editor Paul Murdin. It promises to become a main source of information for astronomers as well as laymen.

These and many other interesting items are presented to us under the title "Organizations and Strategies". The fellow on Punch's frontispiece demonstrated the sheer power of the human brain, equipped with a slide-rule. Today's young student of astronomy as well as the advanced researcher will derive pleasure from supplementing these tools with the rich contents of this volume.

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