



## Meeting the President

Allan R. Mackintosh, a Dane who is presently Professor of Physics at the University of Copenhagen, was elected by Council in Budapest to be President of EPS for the year 1980/81. Professor Mackintosh is a solid state physicist whose principal research interests are the magnetism of rare earth metals and the electronic structure of transition metals. He received his Ph.D. from the University of Cambridge in 1960 and has held positions at Iowa State University and the Technical University of Denmark. From 1971-76 he was Director of the Research Establishment Risø. He is a former President of the Danish Physical Society, a member of the Royal Danish Academy of Sciences and Letters, the Danish Academy of Technical Sciences, The Institute of Physics and is a Fellow of the American Physical Society. He has been awarded an honorary doctorate by the University of Uppsala. He is currently chairman of the Danish IUPAP Committee.

He has been associated with EPS almost from its inception and was the first Chairman of the Metals Section of the Condensed Matter Division. For the past three years he has been a member of the Executive Committee serving first as Vice-Treasurer and then Treasurer during the past year.

*Mr. President, EPS is a little over 11 years old. What do you consider to be its principal achievements so far?*

The really outstanding contribution that EPS has made to physics in Europe is to bring the physicists from all European countries together. In the U.S.A., physicists form a community quite naturally, whereas in Europe before EPS came into being this was not the case, even though occasionally they might unite for particular objectives. Now collaboration in physics in Europe has become part of the natural order of things, and I think there is little doubt that the EPS has made a major contribution to bringing about this happy state of affairs.

I believe also that we can continue and intensify this collaboration, particularly if it is fully understood that cooperation implies an obligation to adhere to certain ground rules. Scientific collaboration requires that there be a general agreement among nations that, despite different structures in society, certain principles are respected. A most important success of EPS is the way in which physicists of eastern and western Europe have been drawn together, to a degree that is quite exceptional, and although it may be argued that physics should naturally take the lead in such matters, in practice, the role of EPS has been decisive.

We cannot conceal the fact however — nor should we try — that political problems can arise which could inhibit the expansion of this east-west relationship and even cause it to contract. It is evident that the political problems of recent months have made an impact, but I am encouraged by the impression I have received that there is an understanding throughout the entire scientific community of the need to maintain common standards, particularly in the freedom given to scientists to carry out their scientific work. This I regard as essential for a continuance of collaboration in research.

I was also encouraged by the statements made at the Scientific Forum in Hamburg (which was a follow up to the Helsinki agreement) when there was agreement by all the participating nations that freedom to work is of fundamental importance. Let me quote from the final statement — “it is furthermore considered necessary to state that respect for human rights and fundamental freedoms by all States represents one of the foundations for a significant improvement of their mutual relations and of international scientific cooperation at all levels”. I hope that the significance of this statement, which is appreciated by all physicists, is equally understood by the political authorities in all countries.

Apart from its major broad contribution, I should also mention certain specific ex-

amples of the influence of EPS on European physics. The conference situation has been completely transformed during the past decade and we now have an intense and lively calendar, comparable to that of the U.S.A. I am particularly pleased to note that effectively all the Divisions (and some Sections too) are organizing annual conferences of very high standard, providing thereby a natural forum for physicists in a particular field. This was rare prior to the initiatives taken through EPS, which have stimulated a whole range of valuable scientific meetings.

In many respects they are a further manifestation of the broad will to collaborate, and we see the same influences at work in the activities of our various Advisory Committees — for example the

### Contents

Meeting the President	1
Searching the Literature	3
CMD in Antwerp	7
Stabilization of Monatomic Hydrogen — a New Bose Gas	9
Stella	10
Quantum Electronics Division	11
ESO Enlargement	12
ACAPPI/CMD Summer School	12
1980 EPS Hewlett-Packard Europhysics Prize	12

Education Committee, where physics education is seen as a subject for common concern throughout Europe and not simply as a national preoccupation. With less rapid success EPS has also tackled the publications situation in Europe and, although much remains to be done in rationalizing the whole spectrum, we have taken a very important step in launching, with The Institute of Physics in London, the *European Journal of Physics*. This was an obvious gap in Europe's range of publications and I look forward to this journal, becoming a great success.

*What do you see as the present strengths and weaknesses of EPS?*

Like all societies, EPS is composed of individuals, and EPS will flourish to the extent to which it remains possible to find members willing to make the necessary effort. I have been most impressed by the large number of people within EPS who are ready to work really hard in a given domain, spurred on not by any idea of material reward but from a sense of idealism and a belief in the value of what they do. This is the key — a band of enthusiasts who are encouraged to make their personal contributions.

There is perhaps a feeling in the Divisions that the contacts with the central administration, notably the Executive Committee, have not been adequate and some Individual Ordinary Members may have gained an impression of remoteness. What I should like to see is a closer integration of the whole organization so that everyone in the Society can feel part of a unified effort and in touch with the policy making bodies. I hope that during my presidency we can open further channels of communication, and that in particular the Chairmen of Divisional Boards and the Executive Committee can come into much closer contact.

But it should not stop there. We must involve the members individually and I should be very pleased if they would write to me about their ideas, their suggestions, their complaints, etc. We shall then try and respond accordingly.

EPS has been well served by its unique structure that allows it to be both a federation of National Societies and a body of individual members; it seems to satisfy remarkably well the different needs of the Society and its members. It may be the time nevertheless, to review the structure of, for example, the Advisory Committees. It is natural that there should be some evolution and the present structure, which has worked well in the past, may be due for adjustment. As for the Divisions, I would expect any proposals for change — new Divisions or new activities for existing Divisions — to come primarily from the grass roots.

*As the past Treasurer of the Society how do you view the Society's finances?*

We did pass through a very difficult period some years ago and by the standards of that time our finances are rather strong. On the other hand, in comparison with some societies we are certainly not affluent. I don't think we shall ever be particularly rich in a money sense, because this is not our objective. We do, however, have to maintain the sort of balance that has been achieved in recent years.

One thing that does disturb me is the decrease in the number of I.O.M. subscriptions received this past year, both because of the revenue as such, which we need, but even more because of the distortion this introduces into our structure. We must take seriously this question of how we make the Society more attractive to I.O.M.s, how we recruit more members and how we get our members to pay, so that we revert to a better balance between the individual membership and the National Society membership.

As regards expenditure, we have at the moment the financial drain of the launching of the *European Journal of Physics* palliated by the generous contributions from Belgium and Denmark (which I hope may be matched by other countries). In due course this journal ought to become a financial asset and provide a source of income for new initiatives.

On the whole, I see no cause for alarm, but there can never be room for complacency in a society which runs on such a modest budget as the EPS. I might mention here that there is no possibility of making any significant reduction in the Society's administration costs. Mr. Thomas and the Secretariat do an excellent job with the small resources available to them.

*Have you some special projects in mind to which you would like to give particular emphasis in the coming period?*

If we look back on the history of the Society we can distinguish a number of phases. It was founded with great enthusiasm and vision and an initial impetus was built up. Then we ran into economic difficulties, as we had over-reached our capacity and the financial position had to be stabilized. This was accomplished in the period that followed, while the critical objectives of the Society were maintained. Once economic stability was achieved, we could launch new initiatives and this was done. Now I think we have come to the point when we need to examine our programme and make sure that all its components are on a sound basis.

For example, there are the Scholarship Programme, the Lecturer Exchange Scheme, the ideas for the rationalization of Publications, the proposed EPS medal project, and, of course, we have to put our

whole weight behind *E.J. Phys.* In other words, we have a number of schemes which are in their early stages and which need a lot of attention to get them fully established. I do not think that this will leave a lot of time for fresh initiatives in the immediate future. We need, I believe, time for consolidation again, with the difference that, in this period, it is our projects that have to be consolidated rather than our finances.

*You seem optimistic about the future.*

It is perhaps natural for every President to be optimistic but, in the case of EPS, there are good reasons for being so. Financial constraints do not seem to be too inhibiting; we have an effective organization and, while problems will arise, I am impressed by the constructive attitude I have met in every part of the Society — individuals, Sections, Divisions, Council and Administration. In these circumstances, there is every reason for believing that progress will continue to be made.

The major problems that might arise could well be the result of external forces upon which the physics community has no great influence. But if any European society can transcend political problems, it is, I believe, the EPS, because of the mutual understanding and will to collaborate which have been built up during our Society's short history. We have achieved a great deal in the past 11 years — more than many who were called optimists in the late sixties believed possible. Given the continued support of our members, and a reasonably stable political and economic climate in Europe, I see no reason why we should not continue to prosper.

## Master of Science University of London

*Applications are invited from physicists to attend lectures from 1st October 1980 and undertake an experimental or theoretical project on a full-time, twelve month course leading to the M.Sc. degree of the University of London. Choice of condensed matter, with emphasis on semiconductor devices, or nuclear and elementary particle physics with an experimental bias. Entry standard is good Honours degree in physics for one year course, but other graduates can take a qualifying first year. Tuition and examination fees: EEC students £1,105 p.a.; others £3,000 p.a. Further details from:*

*Professor E.R. Dobbs,  
Bedford College, Regent's Park,  
London, NW1 4NS, England.*