

THE ROLE OF THE PORTUGUESE SOCIETY (SPME-BC) IN THE DEVELOPMENT OF ELECTRON MICROSCOPY¹

Miguel Mota²

SUMMARY

The Portuguese Society of Electron Microscopy was founded in 1966. The number of scientists using electron microscopes in Portugal was scarce, at the time. Thanks to the Annual Meetings and other activities of the Society, the number of electron microscopes and the production of scientific papers increased rapidly. The “Program and Abstracts” of the 40 years of the Society are a good demonstration of its importance.

INVITED SPEECH

Electron microscopy in Portugal suffered from a bad start, which delayed its development for several years. When in 1954 I put a request for such a machine, with a detailed report stating why I needed it to see with a higher resolution the centromere region of chromosomes, essential for the new theory of the anaphase movement I was developing, I met with an enormous resistance.

In 1966, with only four electron microscopes operating in Portugal, a group of us considered that a scientific society for electron microscopy could help pushing the use of that machine, necessary to solve many problems.

After a series of informal meetings and discussions, the Portuguese Society for Elec-

tron Microscopy held its first formal General Assembly in June 1966 and elected its first Board of Directors, just a President, a Secretary and a Treasurer, all from the University of Porto.

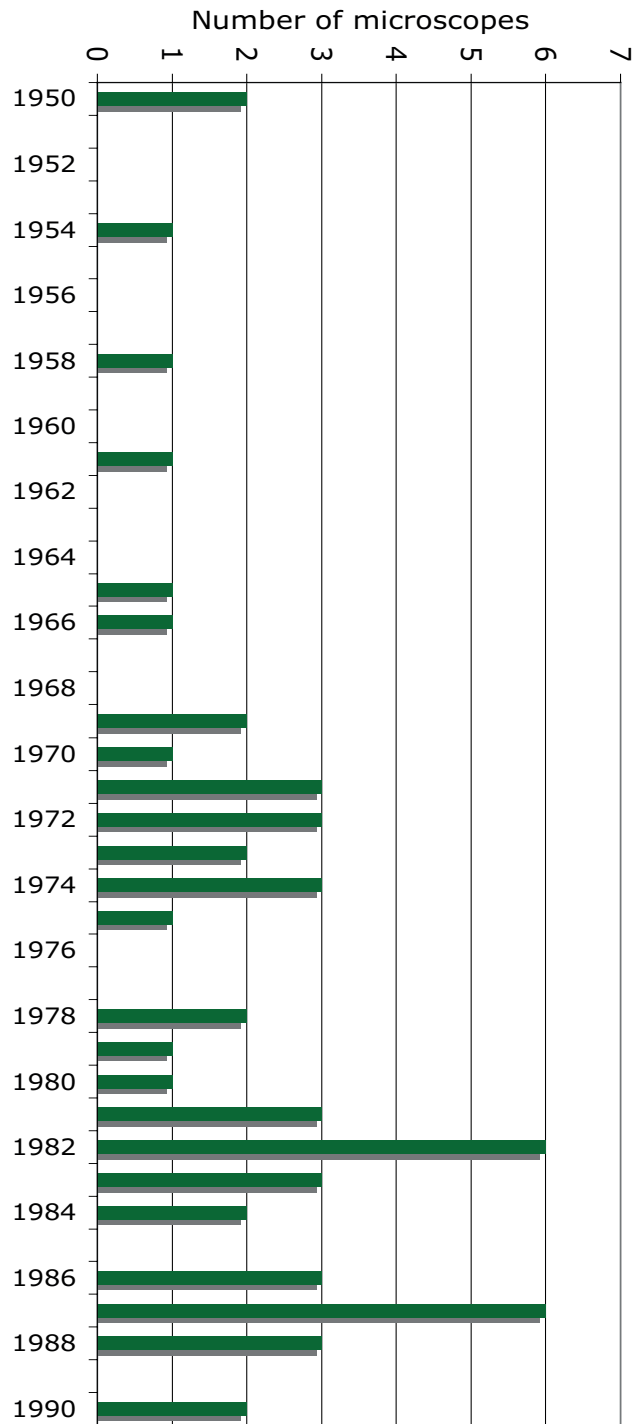
The Society had its first Annual Meeting on December 14 of the same year. It was only one day of solid work. Eleven papers were presented and discussed and the session ended with a movie film on electron microscopy entirely made by two members of the Society.

Half a dozen of the participants had had some previous experience but several young people that had started doing electron microscopy that same year presented good research, being enough to say that some of that work was published the next year in journals like “Experimental Cell Research” and others.

Membership increased rapidly, from the small number of founding members, to reach a few hundreds. The results of the good work reported at the Annual Meetings and the increasing number of published papers was convincing and financial support was given to install more microscopes in different laboratories. It is important to remember, in that phase, the good help of the Gulbenkian Foundation that provided the Universities of Lisbon, Porto and Coimbra with one microscope each and always gave some financial contribution to the Annual Meetings. I remember the old Elmiskop IA in the Calouste Gulbenkian Laboratory of Electron Microscopy of the University of Porto, which I used during three years before I had one installed in my own lab. That microscope, now a museum piece that can be seen in the hall of the IBMC, has to its credit over 200.000 photos and several hundred scientific papers.

¹ Invited speech in the Opening Session of the XL Annual Meeting of the SPME-BC, Lisbon, December 8 2005

² President, Portuguese Society of Genetics in 2005



Electron microscopes installed in Portugal

As we can see, between 1950 and 1968 (eighteen years), only seven electron microscopes had been installed in Portugal and three of them were inoperative. Three years after the foundation of the Society and when the results were evident, the number of electron microscopes installed increased rapidly. By 1990 a total of fifty-four electron microscopes had been installed in Portugal, still a modest number, if compared with countries of the same dimension

Changing the Board of Directors every year, the Society had its Annual Meetings and other activities in different towns, initially only Porto, Oeiras and Coimbra, later also Lisbon, Évora, Luanda, Funchal and Aveiro. Since 1971 the Abstracts started to be in Portuguese and English, as there were always a few invited guests from abroad. In 1983 they started to include also electron micrographs. The forty "Programs and Abstracts" of the Annual Meetings are the best credentials to demonstrate the value of electron microscopy.

In 1969 I published the "Portuguese Bibliography of Electron Microscopy", which listed all publications on that subject by Portuguese authors and by foreigners who published in Portugal. In 1973 a First Supplement was published and another group published yet another in 1983. It is a good help to those who want to know what was done during those early times.

As I mentioned, the activities of the Society were not limited to the Annual Meetings.

A number of other meetings and courses on different subjects were held during these forty years. I remember, in earlier times, in one year, a meeting on the study of surfaces and a course on analytical electron microscopy. In 1973, in Luanda, preceding the Annual Meeting, the Society organized a two weeks course on electron microscopy, for those who started using that technique.

The Society is a member of the International Federation of Societies of Electron Microscopy.

The contribution of the Society was not limited to Portugal. The presence of a number of Portuguese scientists in international meetings became normal. As early as 1969 we initiated contacts with the Spanish Society for Electron Microscopy, which at the time, although ten years older than the Portuguese, had fewer members, the majority in materials science and with very little biology. That contact was initiated with the invitation of the President of the Spanish Society, Professor Luís Brú, to participate in our Annual Meeting and was a good stimulus. Soon the Spanish Society included a large number of highly qualified biologists from different fields. A few joint meetings of the two Societies took place.

As I had no responsibilities in the organization, I can say that I am sure that the meeting we just started will continue to give its valuable contribution to Science.

Thank you.