

Book Review

A Life in Science

Sir NEVILL F. MOTT

Taylor & Francis, London and Philadelphia, 1986. 198 pages, 21 figures, £15.00, ISBN 0-85066-333-4.

This excellent autobiography written by the famous and well-known physicist Sir NEVILL F. MOTT is being read with great pleasure and demonstrates that a life in science can give a suitable belletristic sujet.

The author does not attempt to review or explain his scientific work, though he will throw some light on the origin and development of his ideas. One of the important statements of the book explaining N. MOTT's passion for physics is that he never doubted to become a physicist believing that this is the thing he can do best. And, like a credo: "To me the laws of physics are to be approached through mathematics, and their validity and beauty become clear when expressed in mathematical form."

Nevertheless, a universe is opened with rich experiences also outside physics as to the academic administration as well as religious and political activities. Especially, N. MOTT's engagement in the international control of atomic energy and the anti-Concorde project should be mentioned here, but also his influence as President of the Modern Language Association as well as his interest in problems of education. As an example of the latter he said that education may support gifted children only if the society accepts that "Science is not a collection of facts but a way of answering questions, and the 'answer' continually changes", which also holds in general.

The fundamental discoveries of N. MOTT e.g. in investigating insulator materials, studying dislocations, and, from 1950s onwards, his research in liquid metals and semiconductors have helped to promote the understanding of microelectronic developments, which have been revolutionizing modern every day life.

Starting research in Cambridge (1930) with applying the recently developed quantum theory to Rutherford's nucleus model, turning to solid state physics in Bristol (1933) and building up a department that owing to his experiences during the war could help the industry N. MOTT comes to the non-crystalline semiconductors in the late 1960s.

The latter investigations brought him the Nobel prize 1977 and a lot of honorary degrees, which he quoted by "Perhaps the chief pleasure is the obvious satisfaction it gave friends and colleagues". Although in the same strikingly restrained manner all the important experiences in life and science are dealt with, the book is interspersed with the contest of the polarizations in science as e.g. theory and experiment, freedom of research and applicability of the results, free availability of information and plagiarism, true scientific cooperation and scientific tourism, specialization and universality, relative scientific truth and divine omnipotence.

No doubt that the book will find numerous readers, it might be recommended not only to specialists but also to those who are interested in history, philosophy and religion as well as in a life in science more generally.

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