

ORIGINS AND PHILOSOPHY OF TECHNOLOGY

LARGE corporations both in the United States and Britain have recently been giving attention to the more metaphysical aspects of the power they embody or produce, and considering the direction of the steps they intend to take in the second half of the twentieth century. In the United States, General Motors employed Peter Drucker to sketch for them "The Concept of the Corporation". In Britain, from the periphery of an industrial conference, similar heart-searchings are visible. Perhaps the best description for this activity is Adolf Berle's "Matrix Work", which he defined as "tending towards a body of sophisticated thinking whose aim, properly organized, is a concept of a community making for the good life".

Big bites into the edges of this vast and important sphere of thinking have just been made by the Electricity Council. Its chairman, Sir Henry Self, is particularly well qualified to do so, for in the midst of a distinguished career at the Board of Trade, the Post Office, the Foreign Office, the War Office, the Air Ministry and the British Electricity Authority, he has found time to supplement his originally scientific training by separate academic qualifications in mathematics, divinity, classics and philosophy. Having ploughed, harrowed and sown such diverse fields, all in their way fertile, he has now been winnowing the harvest of a life-time. Moreover, as president of the Modern Churchman's Union he is particularly concerned with presenting in contemporary terms a teleology of the modern world. He sees the universe as a complex of experience in every conceivable form at any possible level. He cites the collect in the "Book of Common Prayer" that prays for the grace not only to "read, mark and learn" but also to "inwardly digest" that which is "written for our learning". His introduction to the eight lectures* which were delivered to an invited audience of members of the senior staff of the Electricity Supply Industry in the autumn of 1956 emphasizes the inward nature of this digestive process.

As an aperitif, he has assembled three well-known figures to present the fruits of their work on the history of science: Prof. H. Dingle, Prof. D. McKie and Dr. P. Dunsheath. Each takes two strands of human

thought and development which has fundamental significance for an understanding of our times and which, in Sir Henry Self's view, can be used as "the basis for future development of twentieth century life". Prof. Dingle presents us with Galileo and the beginnings of modern science, Prof. McKie follows on with the Royal Society and the scientific academies, and of course Lavoisier and the beginnings of modern chemistry. Prof. Dingle returns with a lecture on the nineteenth century and the expansion of the physical sciences, and Dr. Dunsheath with two lectures on the engineer and human progress. Sir Henry Self has not only given the introductory and the concluding lecture but has also published a further booklet*, treating in a complementary way twentieth century science and its implications for modern thinking. In this he confines himself to the exact sciences, but promises us further supplements on biology, medicine and psychology.

To the philosopher these two booklets are interesting and significant in that they reveal Sir Henry as a disciple of that great scientific statesman, Viscount Haldane, to whom, as much as any man, we owe the foundation of the Department of Scientific and Industrial Research. For he sees society evolving through community, creative adventure and the pursuit of truth. He is concerned with the bipolar nature of man. As a twentieth century mystic in the tradition of Boehme, William Law and Coleridge (though he does not shelter behind their names) he says "we have got to try and break from the bad habit which has grown over seven centuries whereby we are so proud of our empirical development, of the idea of trial and error, experiment and test, that having developed that we have thrown away the origins, the sources, out of which it sprang". These origins and sources show man, not as a super-computer capable of grinding out thoughts, words and ideas with a brain and a nervous system, but a living embodiment of ideas which have enduring eternal value.

Texts are out of fashion. If one were to be put on the front of these two booklets it would be *Romans*, i, 20: "For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made".

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* "The History and Philosophy of Science and Technology". Pp. vi+139. 9s. (Education and Training Department of the Electricity Council, London, 1958.)

* Sir Henry Self, "Some Implications of Modern Science". Pp. ii+18. 1s. 6d. (Electricity Council, London, 1958.)

IONS OF THE TRANSITION ELEMENTS

A GENERAL discussion organized by the Faraday Society on "Ions of the Transition Elements" was held in Dublin during September 9-11. The main object was to consider the electronic structures and properties of these ions, particularly when included in complexes. A further object was to bring together physicists whose work was concerned with the structures of these ions and theoretical and experimental chemists whose interests lay in the same direction. It was most fortunate that both Prof. L. Pauling (California Institute of Technology)

and Prof. J. H. Van Vleck (Harvard University) could be present, for their names are intimately connected with two of the most important theories that have been applied to the electronic structures of these compounds.

Two introductory papers at the beginning of the meeting were given by Dr. J. W. Linnett (University of Oxford) and Prof. M. H. L. Pryce (University of Bristol). The former surveyed the theories and experimental methods that have been employed, while the latter considered, in very general terms,