

Guest Editorial

Historical Background of Science and Technology in the West and in India

In a modern sense, science and technology which include medicine, came into existence during the European renaissance of the fifteenth century. The word renaissance is to mean here the entire cultural activation of that era. Violently stirred by spirit of inquiry and freedom of thought, the tumultuous minds of the awakened Europe struggled fiercely to pile up facts over facts and to group them in a reasoned, scientific order. The subsequent rush of adventures, speculations, theories, and researches sustained and strengthened this pursuit. Vigorous and greedy attempts to exploit the fruits of science for the betterment of human life led to unprecedented growth of technology. Born of the union of historic necessity and intellectual excellence of renaissance, science and technology enjoy today, in the West, a social status at once characterized by native grace and honorable self-sufficiency. Full of dynamic vigor they stand over the glorious past and though often seriously misused, continue to contribute to the progress and welfare of humanity. Such is the magnificent and awe-inspiring superstructure of science and technology in the West; and yet it is of supreme importance for us to realize that underneath it lie the granite foundations of scientific attitude consisting of the spirit of inquiry and the freedom of thought.

In India, under the British rule, first, a rickety technology grew to meet some bare necessities of life. During the early decades of this century a modest attempt to conduct higher study and research in science was initiated by the enlightened though cold British rulers. A part of the then English-speaking educated class of Indians, mainly employed in the government bureaucratic machinery, availed themselves of the service opportunities in the scientific field. It was by no means a brilliant start for science if compared with that during the European renaissance. It also led to a schism between science and technology. Technology unsupported by science never prospers to the highest level of efficiency. Political independence of India in 1947 brought with it generous and enthusiastic support of the enlightened leaders for the vast expansion of science and technology.

Thus in this country a certain historic anachronism has already occurred during these complex processes. The background of great awakening of

renaissance era and the granite foundations of the spirit of inquiry and the freedom of thought are as yet incomplete. Modern technology appeared on the stage before science, science appeared before the advent of mighty scientists, and scientists appeared before the rise of scientific philosophy.

Nevertheless, the play has started, and without any doubt, started for good. Happily it is not at all late to close the gap between the philosophy

and practice of science, and between science and technology.

It is therefore of very great importance that every scientist in this country tries to appreciate the undesired part of his cultural background and inculcate and encourage the most urgently needed spirit of inquiry and freedom of thought. Such attempt must succeed if supported by acute realization and honest introspection, but if it fails on wider scale the independent growth of science and technology in this country is doomed.

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