

ARCHITECTS OF MODERN THOUGHT

Editor's Note: This article inaugurates a series of talks broadcast by the C.B.C. during the '55-'56 season.

ALBERT EINSTEIN

By George Volkoff, Professor of Physics,
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"The most incomprehensible thing about the world is that it is comprehensible." So wrote Albert Einstein. When asked as to how he arrived at his theory of relativity, he replied that he had discovered it because he was so firmly convinced of the harmony of the universe. He worked all his life with a definite plan in mind: to understand the physical world starting with a minimum number of assumptions consistent with our observational experience. The word Architect is thus a particularly one to use when speaking of Einstein.

But architect though he definitely is, I wish to emphasize his unique role as an architect of modern scientific and philosophical thought, rather than of modern thought at large.

His work did not add new phrases like the "missing link", "the class struggle", or "inferiority complex" to our daily speech. The ideas for which he will be always remembered were not of the kind which "lash men to action". Armies have not clashed, and are not likely to clash in attempts to affirm his ideas or to deny them. Nevertheless, in their proper sphere—that of our intellectual conceptions of the physical world in which we live—his ideas have brought about two major revolutions, and have helped to launch a third one, all of them as far reaching as any that have been recorded in the whole history of human thought.

What I have just finished saying is not meant to suggest that the name and face of Einstein are not familiar to the widest possible circles of the general public. In fact his one major contribution to our everyday speech is his own name. How many of you have not heard some local budding genius described as a "second Einstein"? Quite early in his life, Einstein had become for the common man a symbol of the highest scientific and intellectual achievement, and had remained a legend in his own lifetime until his death on April 18, 1955 at the age of seventy-six. He made a tremendous impact on the minds of multitudes of people who have very little inkling of the meaning of his revolutionary ideas.

If this is so, then to assess Einstein's influence on our world we have to speak of him not only as a philosopher-scientist, but also as a man, and a symbol.

At the age of sixty-seven Einstein wrote in his autobiographical notes: "the essential in being a man of my type lies precisely in what he thinks and how he thinks, not in what he does or suffers."

In keeping with these thoughts I am sure Einstein would have preferred the following remarks to have been restricted to comments on his scientific and philosophical contributions. But I am also sure that Einstein had a deep insight into the reason for the wide acclaim by the general public of men like himself when he said in a different connection: "the moral qualities of great personalities are perhaps more significant for a generation and for the course of history than purely intellectual accomplishments".

As a compromise between these two different attitudes, I shall first merely indicate in a very few sentences the general scope of the three intellectual revolutions connected with Einstein's name: I shall try then to give a picture of the man who caught the public imagination. In conclusion I shall return to a more detailed discussion of Einstein's principal contributions to modern scientific thought.

In the mind of the general public the name Albert Einstein is insolubly linked with one term: "relativity". Actually there are two quite distinct theories bearing that name: his special theory of relativity published in 1905; and his general theory of relativity published in 1916. These are the first two revolutions in scientific thought that I referred to earlier, both of which Einstein carried out singlehanded. The third revolution which Einstein helped other physicists to launch is the quantum theory. Although his connection with the quantum theory is much less well known to the general public, his contributions to this field are every bit as important as the two relativity theories. In fact it is for a contribution made by Einstein to the quantum theory in 1905 that he was awarded the Nobel Prize in 1922.

What was the general scope of these three revolutions? At the risk of tremendous over-simplification we may say that through special relativity theory Einstein revolutionized our concept of time, through general relativity theory he revolutionized our concept of space, and through quantum theory he helped to revolutionize our concepts of matter and of radiation. I shall ask you for the time being to accept on trust as multitudes have done the importance of Einstein's revolutionary ideas in science, and to join me examining a brief portrait of the man.

Editor's Note: Continued Friday.



By approval of the Senate and sanction of the Royal College of Heralds, the above insignia has been adopted as the official Coat of Arms of the University of New Brunswick. This marks the first time in the history of the Provincial University that a Coat of Arms has been formally granted. Prior to this, the only insignia was the Great Seal of the University, granted by the Act of the University of New Brunswick in 1859. During the intervening years, little had been accomplished in the way of acquiring a Coat of Arms, until four years ago when a Sub-Committee of the University Senate was set up to consider designs and suggestions for a Coat of Arms.

The design consists of Gold Beavers on a crimson background, a Black Ship on a gold background and the Book of Learning, inscribed with the words "Sapere Aude". In the words of the official proclamation issued by the College of Heralds: "Per chevron Gules and Or in chief an open Book proper inscribed with the words SAPIERE AUDE in letters Sable supported by two Beavers sejant respectant Gold and in base a Lymphad sail set pennon and flags flying and Oars in action also Sable." The proclamation is now on display in the reading room of the Bonar Law Bennett Library.

The Beavers, representative of industry are symbolic of Canada. The ship is adapted from the official Coat of Arms of the Province of New Brunswick.

The Royal College of Heralds is now preparing a full color portrait of the Coat of Arms. The university has ordered a flag inscribed with the striking insignia.

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DEBATING

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two religious philosophies. The debates of Daniel Webster left a permanent imprint upon moral and political thought.

UNB has a debating club, open to all students. Throughout the year, several debates will be held within the university and against other colleges. We do not pretend that any of our debates are likely to change the course of history, but they can be a lot of fun.—Neil Mulvaney.

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DRAMA

We might safely assume that people come to college to obtain an education which can be put into effect after graduation for the earning of a living. But it should not only be an academic education that the university contributes to a personality. A complete university education must develop the mind socially as well as academically. Two of the most important contents of a broad social background are self-confidence and poise. These are not going to be obtained by attending lectures alone. They must be developed during extra-curricular activities.

There is a Society on the campus which provides the opportunity to fulfill these two important objectives of a university career. This is the Drama Society.

Although this society is one of the oldest on the campus, it has been producing plays since the end of the last century. It is a young and energetic group which enjoys itself whilst carrying out its work.

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