From ancient times

If we attempt to take a look into the future in order to define what the main aspects of education and human civilization will be in the twenty-first century that is advancing on us so relentlessly, we are increasingly aware that the beginning of the next millennium is much more than simply a red-letter day on the world calendar. It impels us to comprehend the past, to form a new understanding of the meaning of life, to determine the contour of the future, as well as—and this is particularly important today—to unite our actions directed towards building a better future for all people living on our beautiful planet Earth.

It has so happened that destiny has bestowed on us the privilege of taking part in this remarkable event and has invested us with great responsibility for what the world will be like in the twenty-first century. These two sentiments compel us to cast a look into the past and read anew the great books of mankind's progress towards knowledge, books in which pages of great triumphs of human reason alternate with pages full of tragedy. I believe that each of us is excited by the thought that most of the pages of this centuries-old chronicle are still capable of arousing our interest in the great revelations and calamities of humanity on its advance over many thousands of years towards the unattainable, and hence even more coveted, Truth. 'Learn the truth, and the truth will make you free'—such is the promise given to man in one of the most ancient of these books.

Already the first few steps taken by mankind along the path of knowledge have confronted us with the problems riveting our attention today: those of the accumulation, selection, systematization and transmission of information. The stone walls of caverns, the clay tablets of the Assyrians, the papyrus manuscripts of the Egyptians and the Greek parchments were the first vehicles of information where our ancestors recorded and tried to
hand down to succeeding generations their experience of the world around them through drawings, cuneiform characters and letters. However, many centuries passed before man, burdened with the very load of accumulated facts, started to reflect on the necessity of their selection and systematization, and drew an unsteady but crucially important outline of future science.

It is known that science, as the purposeful study of the laws of natural phenomena and society, originated among the ancient Greeks. Their original manner of thinking and acting, as the British scholar John Bernal (1901–71) asserted, consisted precisely in that aspect of their life which we have termed the scientific mode of thinking. By this he implied, not plain knowledge or the art of science, but an ability to separate verifiable facts from allegations arising from emotion and tradition. According to this mode of thinking, the scholar writes, two different aspects may be differentiated: the rational and the realistic, that is, an ability to prove a contention with arguments and a reliance on observed experience.

Science has since traversed a long path of difficulties and contradictions. But what does the experience of ancient peoples tell us? What part of their great heritage is it that we must never forget? It is primarily their constant reference to nature, their faith in the universal principles of life, their determination to proceed in their constructs from the organic unity of the world around them. Science and the arts, in their view, are equal partners in the common process of creation and construction. For instance, in some hymns of the Hindu ‘Rigveda’ the numerical correlation of the world order draws a definite analogy with music; the principle of harmony in the teachings of Pythagoras and his followers is science and music.

But it is not only the unity of science and the arts that characterize the cognitive activity of our ancestors. They actively used their knowledge to solve many sophisticated practical problems. The observatory on Mount Ida in Asia Minor was built by Cleostrates, not only to observe complex sea currents in the Dardanelles but primarily to maintain the security of Milesian commerce. The excavations of Vigand unearthed the ruins of the Temple of Hera on Samos, reputed to be a pioneering creation in the art of constructional engineering, and even a cursory look at the temple is enough to convince the viewer that its architects and builders had broad knowledge of engineering and a mathematically accurate sense of proportion. This harmony, a challenge to the imagination of modern man, was praised in highly figurative style by the great Russian poetess Marina Tsvetayeva:

We are asleep, but through the slabs of stone
We see a guest from the heavens in a garb of petals.
O world, you need to understand!
A bard discovers in his slumber
The law of stars and the formula of life.

The accumulation of knowledge, and the emergence and development of spiritual and intellectual life appreciably changes ethics and customs. It becomes clear that whoever has learned the mysteries of knowledge accumulates fantastic power by which he or she ‘rules everything through all’. The problems of education began to attract not only philosophers