

its excellence consists? Who can appreciate the subtle combination of sounds in a symphony like the musician who is able to analyze it into its elements? Who can admire the grandeur of a great edifice like the architect who knows the technique of its conception and its production? It is the same in nature as in art, and I would plead with those whose admiration of the beauties of nature has hitherto been but uninstructed to believe that the pains to acquire even a little knowledge of common things and processes will do nothing but make this admiration more profound. Admiration without knowledge is not always visibly expressed by the gaping mouth, but that is at once its emblem and its stigma. "We are apt," says Lord Avebury "to think that everybody recognizes beauty when he sees it, but that is a complete mistake. Many stand both blind and deaf in the great temple of nature."

What is it, I would ask, which attracts you young men, and you young women to the study of Science? I venture to hope and believe that in the majority of cases it is no mere utilitarian motive, no desire to make a fortune or even to secure a competence, but a sheer though budding love of Science for its own sake, and over and above the desire for knowledge, I am convinced that it is the *beauty of Science* which attracts you. For on the purely aesthetic standpoint what efforts of the painter can compare with the wonders of fluorescence, what painted picture can equal the spectrum? And how greatly is the beauty of these phenomena increased by a knowledge of their course and sequence? Turning to biological subjects, he is indeed blind who cannot gaze in wonder and admiration at the anatomical structure of the simplest organism. Microscopical anatomy reveals a world of beauty at present the happy hunting ground of a very small minority even of scientific men. To my mind the cutting of thin sections (whose thickness is measured in thousandths of a millimeter) of animal or vegetable tissues, fixing them on glass slides and staining with carefully selected dyes, in preparation for examination on the stage of the microscope, is one of the most refined and attractive occupations with which the human brain and the human fingers have ever been engaged. Every branch of Natural Science has its analogous beauties known only to its votaries.

There is another and a higher kind of beauty which Science displays. This is a beauty which appeals to our mental vision. Such an idea underlies the use of the word "elegant" by the mathematician. To cite a well