

His manner of discourse also was so attractive and stimulating that he riveted the attention of his pupils, incited them to pursue the studies that he loved, and fired them with a desire to apply his methods. Ostensibly he had to teach mineralogy—a science which in ordinary hands can hardly be said to evoke enthusiasm. But Werner's mineralogy embraced the whole of Nature, the whole of human history, the whole interests and pursuits and tendencies of mankind. From a few pieces of stone, placed almost at random on the table before him, he would launch out into an exposition of the influence of minerals and rocks upon the geography and topography of the earth's surface. He would contrast the mountainous scenery of the granites and schists with the tamer landscapes of the sandstones and limestones. Tracing the limits of these contrasts of surface over the area of Europe, he would dwell on their influence upon the grouping and characteristics of the nations. He would connect, in this way, his specimens with the migration of races, the spread of languages, the progress of civilization. He would show how the development of the arts and industries of life had been guided by the distribution of minerals, how campaigns, battles, and military strategy as a whole, had been dependent on the same cause. The artist, the politician, the historian, the physician, the warrior were all taught that a knowledge of mineralogy would help them to success in their several pursuits. It seemed as if the most efficient training for the affairs of life were obtainable only at the Mining School of Freiberg.

By such continual excursions into domains that