

tion to its form, temperature, and magnetic tension, and to consider the fullness of organic life unfolding itself upon its surface beneath the vivifying influence of light. In this manner a picture of the world may, with a few strokes, be made to include the realms of infinity no less than the minute microscopic animal and vegetable organisms which exist in standing waters and on the weather-beaten surface of our rocks. All that can be perceived by the senses, and all that has been accumulated up to the present day by an attentive and variously directed study of nature, constitute the materials from which this representation is to be drawn, whose character is an evidence of its fidelity and truth. But the descriptive picture of nature which we purpose drawing must not enter too fully into detail, since a minute enumeration of all vital forms, natural objects, and processes is not requisite to the completeness of the undertaking. The delineator of nature must resist the tendency toward endless division, in order to avoid the dangers presented by the very abundance of our empirical knowledge. A considerable portion of the qualitative properties of matter—or, to speak more in accordance with the language of natural philosophy, of the qualitative expression of forces—is doubtlessly still unknown to us, and the attempt perfectly to represent unity in diversity must therefore necessarily prove unsuccessful. Thus, besides the pleasure derived from acquired knowledge, there lurks in the mind of man, and tinged with a shade of sadness, an unsatisfied longing for something beyond the present—a striving toward regions yet unknown and unopened. Such a sense of longing binds still faster the links which, in accordance with the supreme laws of our being, connect the material with the ideal world, and animates the mysterious relation existing between that which the mind receives from without, and that which it reflects from its own depths to the external world. If, then, nature (understanding by the term all natural objects and phenomena) be illimitable in extent and contents, it likewise presents itself to the human intellect as a problem which can not be grasped, and whose solution is impossible, since it requires a knowledge of the combined action of all natural forces. Such an acknowledgment is due where the actual state and prospective development of phenomena constitute the sole objects of direct investigation, which does not venture to depart from the strict rules of induction. But, although the incessant effort to embrace nature in its universality may remain unsatisfied, the history of the contemplation of the universe (which