

AUTHOR'S PREFACE.

IN the late evening of an active life I offer to the German public a work, whose undefined image has floated before my mind for almost half a century. I have frequently looked upon its completion as impracticable, but as often as I have been disposed to relinquish the undertaking, I have again—although perhaps imprudently—resumed the task. This work I now present to my cotemporaries with a diffidence inspired by a just mistrust of my own powers, while I would willingly forget that writings long expected are usually received with less indulgence.

Although the outward relations of life, and an irresistible impulse toward knowledge of various kinds, have led me to occupy myself for many years—and apparently exclusively—with separate branches of science, as, for instance, with descriptive botany, geognosy, chemistry, astronomical determinations of position, and terrestrial magnetism, in order that I might the better prepare myself for the extensive travels in which I was desirous of engaging, the actual object of my studies has nevertheless been of a higher character. The principal impulse by which I was directed was the earnest endeavor to comprehend the phenomena of physical objects in their general connection, and to represent nature as one great whole, moved and animated by internal forces. My intercourse with highly-gifted men early led me to discover that, without an earnest striving to attain to a knowledge of special branches of study, all attempts to give a grand and general view of the universe would be nothing more than a vain illusion. These special departments in the great domain of nat-