

sons in the open air has by much the best chance of profiting by these. There are formations which yield their organisms slowly to the discoverer, and the proofs which establish their place in the geological scale more tardily still. I was acquainted with the Old Red Sandstone of Ross and Cromarty for nearly ten years ere I had ascertained that it is richly fossiliferous — a discovery which, in exploring this formation in those localities, some of our first geologists had failed to anticipate. I was acquainted with it for nearly ten years more ere I could assign to its fossils their exact place in the scale.

In the following chapters I shall confine my observations chiefly to this system and its organisms. To none of the others, perhaps, excepting the Lias of the north of Scotland, have I devoted an equal degree of attention; nor is there a formation among them which, up to the present time, has remained so much a *terra incognita* to the geologist. The space on both sides has been carefully explored to its upper and lower boundary; the space between has been suffered to remain well nigh a chasm. Should my facts regarding it — facts constituting the slow gatherings of years — serve as stepping-stones laid across, until such time as geologists of greater skill, and more extended research, shall have bridged over the gap, I shall have completed half my design. Should the working-man be encouraged by my modicum of success to improve his opportunities of observation, I shall have accomplished the whole of it. It cannot be too extensively known, that nature is vast and knowledge limited; and that no individual, however humble in place or acquirement, need despair of adding to the general fund.