known species of mineral. For these indeterminate, but frequently abundant substances, the following short names were proposed by Vogelsang to save periphrasis, until the true nature of the substance is ascertained. Viridite-green transparent or translucent patches, often in scaly or fibrous aggregations, of common occurrence in more or less decomposed rocks containing hornblende, augite, or olivine: probably in many cases serpentine, in others chlorite or delessite. Ferrite-yellowish, reddish, or brownish amorphous substances, probably consisting of peroxide of iron, either hydrous or anhydrous, but not certainly referable to any mineral, though sometimes pseudomorphous after ferruginous minerals. Opacite—black, opaque grains and scales of amorphous earthy matter, which may in different cases be magnetite, or some other metallic oxide, earthy silicates, graphite, etc. 106

## § vi. Classification of Rocks

It is evident that Lithology may be approached from two very different sides. We may, on the one hand, regard rocks chiefly as so many masses of mineral matter, presenting great variety of chemical composition and marvellous diversity of microscopic structure. Or, on the other hand, passing from the details of their chemical and mineralogical characters, we may look at them rather as the records of ancient terrestrial changes. In the former aspect, they present for consideration problems of the highest interest in inorganic chemistry and mineralogy; in the latter view, they invite attention to the great geological revolutions through which the planet has passed. It is evident, therefore, that

Yogelsang, Z. Deutsch. Geol. Ges. xxiv. (1872), p. 529. Zirkel, Geol. Expl. 40th Parallel, vol. vi. p. 12.