After a historical introduction and exhaustive enumeration of the previous scientific literature in any way connected with the area, Richthofen describes the general surface conformation of the area, and gives the reader a clear conception of the topographical idiosyncrasies of the areas under examination. Then follows a description of the formations and rocks, which omits nothing of lithological, mineralogical, or palæontological interest or significance. Richthofen arranged the various members under two divisions of Trias in the same way as in his treatment of the Vorarlberg rocks :—

Lias.	Upper Dolomite, Dachstein limestone, and Heiligkreuz strata.
Upper Trias.	Raibl marls. Schlern dolomite. St. Cassian marls. Cipit limestone. Wengen shales and tufaceous rocks. Buchenstein nodular limestone. Mendola dolomite. Virgloria limestone.
Lower Trias.	Campil sandstones, etc. Seis limestones. Gröden sandstones.

The superposition of the rocks, their surface extension, and the local variability in their development, along with other points of stratigraphical importance, are then carefully discussed. Excellent geological sections show the parallelism of the succession in the different lines of section. The occurrence of the augite porphyrite is described, with reference both to contemporaneous and intrusive flows.

Upon the basis of the tectonic structure, and the distribution and development of the formations, Richthofen tries to discover the historical succession of events during Triassic time in South Tyrol, and more especially to determine the elevations and subsidences of the sea-floor in that area. In opposition to Buch and Élie de Beaumont, Richthofen attributes most of the changes in the form of the ground, and also tectonic disturbances to slow crust-movements. He also discusses the formation of the dolomite masses (*ante*, p. 250).