moon on various scales. The largest chart was published on 1878 by Julius Schmidt, and with the work of this great astronomer the older methods of investigation may be said to have reached their highest point.

A new era began with the application of photography to the representation of moon landscapes. Warren de la Rue in London, Draper and Rutherford in America, obtained photographs of remarkable beauty. But the earlier results of photography were far exceeded when the astronomers of the Lick Observatory in California made use of their giant lens. The large number of landscapes obtained by this means are now being compiled by Weinek in Prague, and a large Atlas of the moon is being prepared. The English astronomers, Nasmyth, Carpenter, Proctor, and Neison have also contributed very greatly within the last twenty years to the knowledge of the constitution of the moon.

From all these observations it has been proved that the moon, unlike Mars, has no seas and canals, in short no water, but possesses a wonderful array of mountains. With the naked eye, darker-looking areas can be distinguished on the moon's surface. From these rise numerous conical mountains, truncated at the top and with deep craters, ring-shaped mountain-ramparts, and magnificent, deeply-fissured mountain-massives, whose summits are as high as 25,000 feet above the surrounding areas. In addition to these mountain-craters and rings which indicate a volcanic origin, certain rents have been discovered by Schröter in the plains, sometimes penetrating the volcanic cones, and therefore clearly of subsequent origin. A special geological interest attaches also to the presence of light streaks radiating from the craters. Whilst the rents might readily find an explanation as fractures due to contraction, the radially-arranged light-streaks present a difficult question, and some authorities incline to regard them as streams of lava, others again as evidences of sulphurous springs.

The surface conformation of the moon is by no means constant in character. Schmidt in 1866 confirmed the disappearance of an earlier crater, while Klein and Neison in 1877 saw the formation of a new crater.

The American geologist Gilbert has contested the opinion generally accepted at the present day, that the craters and ring-shaped ramparts in the moon are volcanic in their origin.