form and the course of the folds into which the intervening more yielding portions of the earth's surface have been thrown by the tangential strains of contraction. While the first cause of mountain-making is the secular cooling of the crust, the precise form of a mountain-chain is subject to the modifying conditions introduced by these ancient and resistant crustblocks or "archiboles."

The above are some of the leading conceptions in the remarkable work on mountain-structure published by Suess in 1875, and its great influence may be judged from the flood of literature upon this subject which has poured forth since that year. It is impossible to refer here to more than the most important of these publications.

After a long series of researches in a complicated district of Switzerland, Professor Heim, in Zürich, published in 1878 his famous work, Untersuchungen über den Mechanismus der Gebirgsbildung. The two geological maps and fifteen illustrative plates accompanying the text were lithographed by the author himself. The scientific insight and technical skill possessed by Professor Heim form a rare combination, and have brought his views on mountain-structure wide popularity and acceptance.

Heim concentrated his attention on the tectonical phenomena of folding. He depicted in the "Glarus Double-Fold" an appearance which seemed contradictory to any doctrine of mountain-movement, since on the north side of the central Alps, where, according either to the conception of symmetry or asymmetry of the chain the folds should have been towards the north, Heim's observations showed that the major folds on the north and south of the Glarus area had been overthrown towards one another, and the upper portions had continued to travel as "thrust-masses" advancing from opposite directions towards one another. This was clearly inexplicable on the assumption of a uniform direction of the horizontal movement of the crust, and Heim concluded that the inclination of overcast folds depended upon local inequalities of resistance, upon the presence of older folds as well as upon the relative height of the two bases of origin on the opposite sides of any individual fold. The second volume of Heim's work treats the general problem of Mountain Architecture. Using his own field observations as the ground-work of his discussion, he describes the phenomena of rock-deformation during crust-movement