

Scottish Geological Society in 1834, which took the place of Jameson's "Wernerian Society."

Scandinavia early distinguished itself in geological and mineralogical studies: Keilhau and Kjerulf in Norway, Nordenskiöld, Torell, Lindström, Nathorst, and other Swedish investigators, and Forchhammer and Steenstrup in Denmark, contributed much to the rapid progress in the earlier decades of the nineteenth century. Italy suffered in its scientific development during the prolonged and frequent political disturbances, but much has been done in the latter half of the nineteenth century. Russia has, of late, been most energetic and generous in its encouragement of geological and palæontological researches.

The third decade of the nineteenth century saw the beginning of active geological research in North America; and at the present day the United States and Canada are not behind any European land in their scientific attainments and societies.

In proportion as geology continued to expand its scientific interests, its bearing upon many important technical questions began to be realised. It was represented to statesmen that geology could give valuable indications respecting mining and industrial prospects, road and railway construction, agriculture, and forestry. A desire crept in among public bodies for geological maps and reports of whole countries, and not only of local areas specially interesting to science. Practical England made the beginning. In 1835, under the direction of De la Beche, the governmental department of the Geological Survey of the United Kingdom was established, and special branches were formed for Scotland and Ireland, and afterwards also for the extra-European British Colonies.

Almost simultaneously, Dufrenoy and Élie de Beaumont were commissioned in France to prepare a general geological map of that country, and after its completion in 1841, the State arranged for a more detailed survey. Michel Lévy now directs the French Survey, which is carried on chiefly by mining engineers. Other States gradually followed the example of Great Britain and France, and every cultured nation now has its Survey Department for the investigation of the constitution of the ground and the mineral products within its territories.

The establishment of State Surveys naturally removed some of the work that had previously fallen to the share of University professors and tutors; in not a few countries, however, the