mountain-building movements accompanied by the intrusion of batholiths of granite on a great scale. Subsequent erosion wore down these mountains and locally exposed the upper portions of these deep-seated intrusions.

In Carboniferous time a thick series of conglomerate and sandstone was deposited along Chaleur bay in Gaspe, over the wide lowland of New Brunswick, on Prince Edward island, the Magdalen islands, and over considerable portions of Nova Scotia. These deposits, which are of continental origin, in places reach thicknesses of thousands of feet. Marine lower Carboniferous rocks also occur in parts of New Brunswick and Nova Scotia and locally contain deposits of gypsum. In late Carboniferous or Pennsylvanian time, a series of shales and sandstones was deposited over the lowland of New Brunswick and in N va Scotia along Northumberland strait. At Joggins, along the east shore of the head of the bay of Fundy, is a section of Carboniferous rocks over 14,000 feet in thickness, consisting of shales, limestone, sandstone with gypsum beds at the base, coal seams in the middle part, and conglomerates at the top.

At the close of the Carboniferous the Nova Scotia region underwent deformational movement resulting in faulting and local folding. This movement, however, affected the New Brunswick area only slightly. During the succeeding Triassic period beds consisting of reddish conglomerate, sandstone, and shale were deposited in New Brunswick along the bay of Fundy. On the opposite side of the bay in Nova Scotia are more extensive deposits, consisting of several thousand feet of red sandstones and shale capped by about 1,000 feet of amygdaloidal basalt flows. These rocks were tilted and faulted, probably in the Jurassic period. The Cretaceous and Tertiary were periods of erosion in the whole Appalachian and Acadian province. The result was the production of a base-levelled surface of very low relief. Uplift took place in late Tertiary time, and since that period the rivers have entrenched themselves below this peneplained surface.

During the Glacial period the whole region with the exception of the central part of Gaspe was overridden by ice-sheets. It is probable that the ice advanced from local centres. Since the withdrawal of ice masses there has been a general elevation of the region, as is shown by the presence of post-Glacial beaches and the occurrence of marine shells several hundred feet above the present level of the sea.

The chief mineral resources of the Appalachian and Acadian regions consist of coal, asbestos, and gypsum, but certain other materials such as clay products, building stone, sand, and gravel are also important. The Carboniferous strata produce the coal and gypsum, and in addition a number of other mineral deposits such as salt, barite, manganese, petroleum and natural gas, and oil-shale. The asbestos occurs in the peridotite rocks of the Eastern Townships of Quebec. These were intruded in Ordovician time in the form of inclined sheets whose outcrops have widths of from 1,000 to 2,000 feet and whose lengths vary up to several miles. In other places they form oval, stock-like masses, and in still other instances they appear to form thick, lenticular, laccolithic bodies. The asbestos occurs in narrow bodies traversing the altered peridotite. These intrusions of peridotite also locally contain deposits of chromite. The mineral occurs as scattered grains throughout the rock and in places is sufficiently concentrated in irregularly shaped masses to produce ore-bodies.

This period of basic intrusions forms one important metallogenetic epoch in the Appalachian region. A second occurred in middle Devonian time, the period in which the batholithic intrusions of granite took place. The intrusions of these two epochs were responsible for metallic deposits of a considerable variety including gold, iron, copper, lead, zinc, antimony, and tungsten ores.