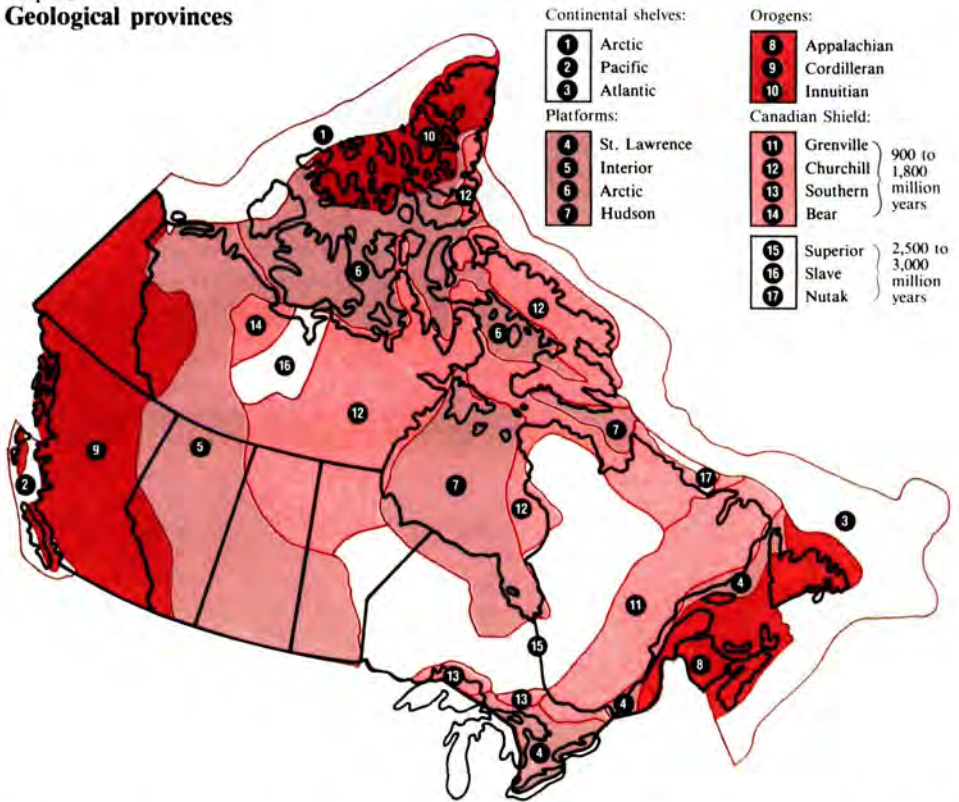


Map 1.2  
Geological provinces



and environmental protection. CCRS facilitates the acquisition of satellite imagery from various international satellites through its receiving stations at Gatineau, Que. and Prince Albert, Sask. A third central role is to help the growing, export-oriented remote sensing industry maintain its position as a world leader in providing products and services overseas.

Maps, aeronautical charts and air information publications may be purchased from the Canada Map Office. Reproductions of federal aerial photography and colour transparencies of selected LANDSAT Satellite Scenes of the landmass may be purchased from the National Air Photo Library.

### 1.3 Geology

Canada is composed of 17 geological provinces which are of four major categories: shield, orogen, platform and shelf.

**The Precambrian Shield** is a vast region covering most of eastern and north-central Canada in a broad band around Hudson Bay. It is composed of seven geological provinces. Three of them,

Superior, Slave and Nutak, were deformed during the Archean Eon and contain the oldest continental crust known in Canada, ranging from 2,500 to over 3,000 million years in age. Churchill, Southern and Bear provinces embrace ancient mountain belts produced 1,750 million years ago during a major Proterozoic orogeny. A younger Proterozoic orogeny about 1,000 million years ago deformed the Grenville province.

The shield was worn down by erosion in late Precambrian times. The sea encroached during the succeeding Paleozoic and Mesozoic eras and deposited sediments. These were largely stripped off by erosion in Cenozoic time. The shield has a characteristically hummocky surface and is low lying except along its eastern margin in Labrador, and Baffin and Ellesmere islands.

**Orogens.** The Appalachian, Cordilleran and Innuitian orogens are mountain belts of deformed and metamorphosed sedimentary and volcanic rocks, mainly of Phanerozoic age, intruded by great masses of granite. The orogens are of different ages and different complex origins.