

Pre-Historic Environment and Some Geological Concepts: Geology is the story of the Birth and growth of, and changes in the earth we live on. Geologically, the age of the earth is divided into four main periods: Primary, Secondary, Tertiary and Quaternary. Each of these periods is further sub-divided into epochs.

The beginning and evolution of culture took place in the last major geological period, the **Quaternary**. The Quaternary is sub-divided into two epochs, viz., **Pleistocene** and **Holocene**, meaning respectively, 'most recent' and recent. The latter epoch is brief, and compared with the later part of the Pleistocene saw relatively little environmental change. The Pleistocene, on the other hand, was marked by drastic changes in climate, particularly in its latter phases. The Pleistocene epoch may be roughly dated to be about two million years ago, and the Holocene about nine thousand years ago.

Pleistocene Climate: The Pleistocene is firmly associated with the several advances and retreats of continental and mountain glaciers. For this reason, the Pleistocene is often referred to as the "Great Ice Age". The formation of such glaciers are effected by a process known as Glaciation. Glaciation is a geological process during which, due to decrease in temperature and increase in humidity, there is a consequent accumulation of ice at higher altitudes of the earth's surface. Thus, a glacier is a body of ice originating on land by the compaction and recrystallization of snow, during this process of glaciation. The specific period during which glaciation takes place is called a glacial zone (examples of such glacial zones are which shows the cooling effects of Glaciation, but not ice formation, is called the Periglacial Zone (for example, the Potwar Plateau in Punjab).

Glacial advances of this sort took place four times during the Pleistocene. In the European Alps, according to the classification by Penck and Bruckner, these major advances are known as the Gunz, Mindel, Riss and Wurm respectively. Between each of these successive glacial periods, there was a relatively warm period called the Interglacial Period. Thus, three Interglacial periods are recognized in the European Alps, viz., Gunz-Mindel Interglacial or Interglacial I, Mindel-Riss Interglacial or Interglacial II and Riss-Wurm Interglacial or Interglacial III. Since there was an increase in temperature and a decrease in humidity during these Interglacial periods, the ice formed during the glacial period started melting. But this ice, on the snow-covered mountains, did not melt beyond a certain critical point known as the Permanent Snow Line.

The glacial and interglacial periods did not have a uniform climate throughout their duration but were intervened by warm and cold periods respectively of smaller duration. These minor phases are known as Interstadials and Stadials respectively..

The final retreat of the Wurm glaciers was followed, at least in some regions, by a series of three minor advances and retreats of ice. At some time during this postglacial epoch, the Pleistocene gave way to the recent epoch, the Holocene.

Pluvial Periods: In tropical areas, the Pluvial periods are the corresponding phenomena to the Glacial Periods. The **pluvial periods** are characterized by heavy rainfall and the interpluvial periods by relatively dry climatic conditions. Four such pluvial periods and