

Topic: Types of Fossils
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Types of Fossils

Sedimentary Rocks:

Majority of plant materials are preserved as fossils in sedimentary rocks. Coal is the best known example of sedimentary rock. Sediments of plant origin are crushed by overlying pressure and form coal. Present coal belt in the world, therefore, represents dense forests of the world of earlier times. Least metamorphosed coal shows maximum details of fossilized or preserved plant material.

Therefore, lignite's (early stage of coal formation) carry less crushed plant parts and their details can be studied easily. Plant parts get excessively crushed in bituminous coal and anthracite coal because they show more degree of metamorphosis than lignite coal. Bituminous coal is of great importance in the study of palynology because pollen grains are best preserved in this type of coal.

Amber:

Most uncommon is the preservation of soft-tissue original material. Insects have been

preserved perfectly in **amber**, which is ancient tree sap. The fossilized plant resin secreted by coniferous trees that grew in very early times is called amber. This “very early time” in the geological past ranged from Carboniferous (i.e. about 345 million years ago) to Pleistocene (i.e. about 2.5 million years ago).

Fungal spores, pollen grains, etc. were trapped in this resin before fossilization. The resin fossilized into amber and inside this were left spores, pollen grains, etc. Amber is, therefore, an example of fossils within fossil.

Diatomite:

Diatoms are unicellular algae belonging to class Bacillariophyceae. Their walls have silicon deposits. The sedimentary rock formed by the remains of diatoms is called diatomite. In due course of time, diatoms keep on depositing at the base of sea, oceans or lakes and form sedimentary rock.

Pseudo-Fossils or Dendrites:

Pseudo-fossils or dendrites are completely inorganic structures of various types. They

often resemble plant organs. Their formation takes place by the deposition of minerals due to seepage or percolation of water in rock crevices. They superficially resemble leaves of ferns.

Mummification:

The process of the formation of fossils in ice-frozen environments in the polar regions is termed as mummification. The moisture of the tissue of the organism gets converted to very small or microcrystals of ice. It is almost a process similar to deep freezing.

Biochemical Fossils:

These are the fossils which consists of chemical substances like chlorophyll, amino acids, aromatic acids, flavonoids, branched hydrocarbons and steroids. These have been reported to be present either in the fossilized remains of organisms or in the rocks. Niklas (1981) reported biochemical fossils of the substances related to sporopollenin, lignin, cutin, cellulose, etc.