

Topic: Process of Fossilization
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Process of Fossilization

A fossil is any remains or traces of an ancient organism. Fossils include **body fossils**, left behind when the soft parts have decayed away, and **trace fossils**, such as burrows, tracks, or fossilized coprolites. Collections of fossils that are found together are known as fossil assemblages.

The process of a once-living organism becoming a fossil is called **fossilization**. Fossilization is very rare: Only a tiny percentage of the organisms that have ever lived become fossils.

Formation of Fossils:

In the basic process of fossilization, the physical part of any plant or animal must be buried within a well-protective matrix in the crust of the earth. This matrix in the earth's crust is usually sedimentary. The sedimentary environment of this kind can be of several types such as lake, stream, inland sea or estuarine, etc.

In several cases it has also been observed that diatom frustules also get incorporated in deposits of deep sea basins. In rare cases, the sedimentary environment is in the form of

volcanic deposits or other subaqueous conditions. The portions of the organisms (plant or animal) preserved in sediment become stony or lithified during course of time.

Accumulation of rock particles results in the formation of sedimentary rocks. Weathering and mechanical abrasion of existing rocks takes place and give rise to the rock particles.

Chemical weathering and flooding also help in the formation of these particles. These rock particles or sediments accumulate and water is squeezed out of them. During course of time, this makes them much more compact or rocky structure. Such a rocky structure is called sedimentary rock.

Some other conditions which favour fossilization include:

- (i) Anaerobic conditions,
- (ii) Low pH,
- (iii) Forest fires in the form of fossil charcoal, and
- (iv) Presence of sedimentary materials such as carbonates, silicates, salts of iron, etc.