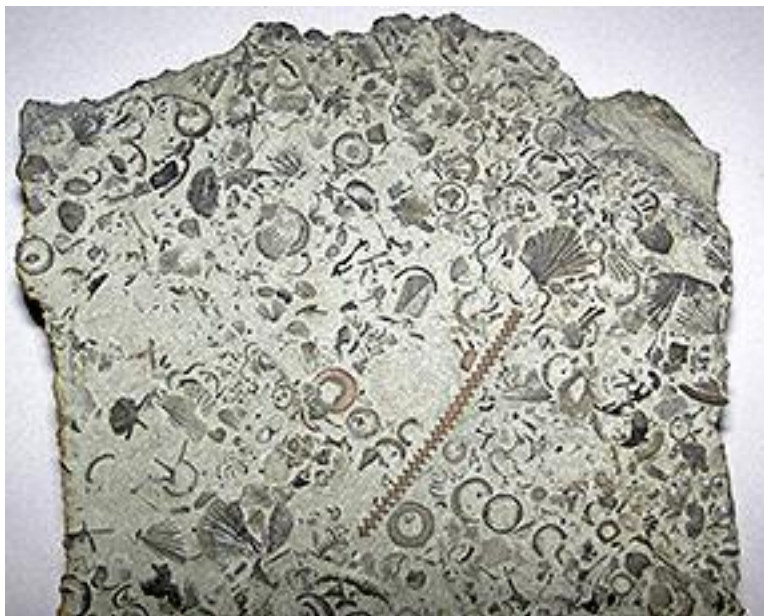


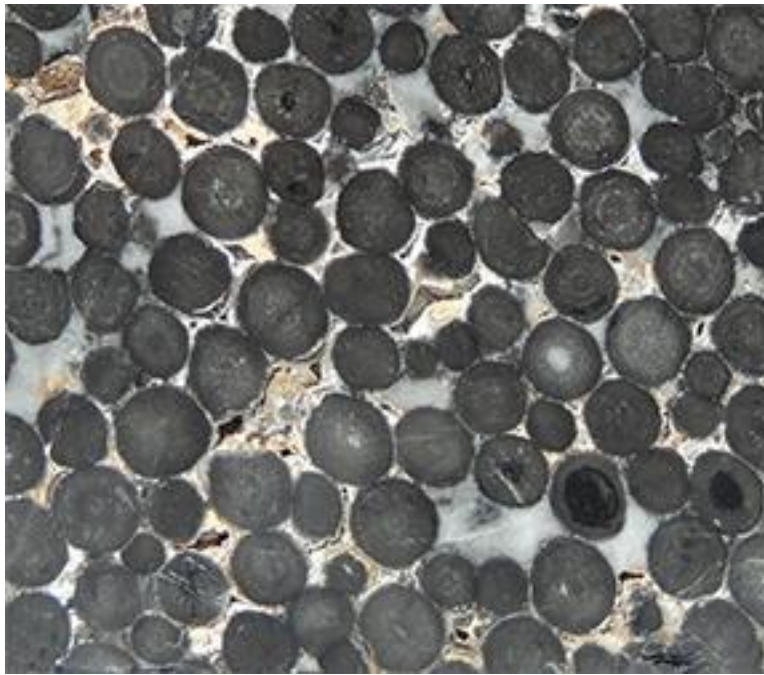
Limestone



Crystalline Limestone
Murphys, Calaveras Co., California



Fossiliferous Limestone



Oolitic Limestone
Saratoga Springs, Lake Co., California



Travertine
North Edwards, Kern Co., California

Rock Classification:

Sedimentary

Mainly composed of CaCO_3

Description:

Limestone is a sedimentary rock composed mostly of the mineral calcite and comprising about 15% of the Earth's sedimentary crust.

Limestone comes in many colors; white, beige, cream, gray, brown, and others.

Limestone may contain seashells, microfossils. Sometime they are composed of oolites, normally small egg shaped spherical grains, looking like pearls.

Most oolites are composed of aragonite or calcite. And are formed of calcium carbonate layers build up layer upon layer. The central area of each oolite can be composed of dust, small pieces of shell. The water they form in is normally warm, and supersaturated and located in an area where the water is constantly moving. (Photo Above – Polished)

There are oolitic sands at Great Salt Lake that formed 10,000 years ago as layers aragonite on brine shrimp feces.

Many fossil specimens are found when layers of limestone are broken apart.

Another form of limestone is Travertine. It is formed by a precipitation from ground water or geothermal hot springs.

Relation to Mining:

Most limestone and dolomite are mined from open quarries, although in many areas economic and environmental considerations favor large-scale production by underground mining. Carbonate shell products are dredged from parts of U.S. coastal waterways.

Surface Limestone Mining:

The basic elements of surface mining are overburden removal, drilling, blasting and hauling ore to the crushing and processing plant.

Underground Limestone Mining:

The basic operations in underground mining are drilling, blasting, loading and hauling, scaling and roof bolting, to keep the overhead rock from caving in.

Uses:

It is a basic building block of the construction industry (dimension stone) and a chief material from which aggregate, cement, lime and building stone are made. 71% of all crushed stone produced in the U.S. is either limestone or dolomite.

The largest use of lime is in steel manufacturing where lime is used as a flux to remove impurities such as phosphorus and sulfur. Lime is used in power plant smokestacks to remove sulfur from the emissions.

It is a source for lime; and it is used to make paper, plastics, glass, paint, steel, cement and carpets.

The travertine form is often used for carvings and is often made into delicate translucent bowls. It is often used for lapidary projects and made into jewelery.

It is also used in water treatment and purification plants and in the processing of various foods and household items (including medicines).

Above information and photos may have come from Geology.com, Mineral Education Coalition.org, Wikipedia or My Samples.