

The Briefest-Longest History of Coldworking

Coldworking actually predates glassmaking by a significant amount of time. The first, and longest-lived, type of coldworking is still accomplished in the oceans. This work is done on both micro and macro scales -- from sea-smoothed, fine-grained beach sands to crumbling sea cliffs.

The abrasives of the sea, often comprised of the same rock that is being abraded, are used in conjunction with the action of water. On land, rivers carry sediment that scours riverbeds into canyons. Glaciers grind away the mountains below them with rocks caught in the ice. Winds pick up small particles that abrade and “sandblast” everything in their path.

The Grand Canyon? Coldworked.

Geological science puts the age of the oldest rocks known at 3.96 billion years and it can be inferred that these stones, at one time or another, were coldworked.

Within the human realm, early examples of coldworking are spear points, stone tools, and petroglyphs. These artifacts show how stones can be altered by the human hand via some sort of tool, abrasive, or with friction. Across the globe, these early, human made objects are all remarkably similar.

Though rocks have been “flaked” for nearly two million years, as witnessed in the Oldowan “choppers” found in the Olduvai gorge in east Africa, a process called the Levallois Technique, in which stones are broken and shaped by a quick blow with a hard object to produce primitive flint scrapers that resemble tortoise shells, was developed roughly 200,000 years ago by the Neanderthal people in northern Europe and in northwest Africa.

The Levallois Technique is a fairly sophisticated process of breaking corners and chipping surfaces of stone to achieve a very thin rock flake with sharp

Below left: Devils Postpile, in the mountains of California, is a basaltic lava flow which cracked as it cooled -- the long columns were caused by the release of tension during cooling.

Below right: A view of the top of Devils Postpile, showing the smooth flatness of glacial polish. Contrary to popular belief, this process is not done by the ice but by small rocks embedded in the bottom of ice. Note the hexagonal patterns of the cooling cracks.

