Volcanic Obsidian

Favored Tool-making Stone

Most of the stone artifacts archaeologists found in the Milford Wind Corridor are made of a volcanic glass known as obsidian. Hard and brittle, obsidian fractures quite easily and with extremely sharp edges. These qualities made it a favored tool-making stone.

This prized tool stone is quite common here. Native people quarried obsidian from three local sites—two just east of the Milford Wind Corridor area and one to the northwest.

After studying the particular array of artifacts at archaeological sites around the Milford Wind Corridor area, researchers believe that early people occupied these sites for short periods and returned to them regularly. Paleoarchaic people may have been hunting migrating animals, following the seasonal ripening of wild edibles, or replenishing obsidian supplies.

Like detectives, archaeologists carefully look for clues about past events. Above and right, researchers document soil layers to determine the potential for deeply buried artifacts.

Native people of the Great Basin produced many kinds of projectile points over the thousands of years they lived in this region.

The Black Rock area (left) is one of a few major deposits of high-quality obsidian in the greater Southwest.

Written in Stone

Obsidian Tools Hold Answers

When archaeologists find obsidian artifacts, key questions arise. When was this tool made? Where did it come from? The obsidian itself holds answers to such questions, but it takes a trained eye to read them. Here's how:

Like a Sponge

Though it might seem rock-solid, obsidian absorbs water very slowly from the air around it. When a piece of obsidian is broken, the newly exposed edge begins to hydrate. By studying a slice of an obsidian artifact under a microscope, archaeologists can see how deeply the water has penetrated. The older the artifact, the thicker its hydration band. Though scientists can't yet tell exactly when an artifact was made, they can determine the general time period.

Chemical fingerprint

Every volcanic flow that creates obsidian is chemically distinct. Archaeologists can compare the chemical characteristics of an obsidian artifact with known obsidian sources to identify exactly where the rock came from. That's how they know that the Paleoarchaic tools found in this area come from three main sources—the Black Rock, Mineral Mountain, and Topaz Mountain areas.