

## Wind Erosion and Deposition

Tornadoes can blow through an area and destroy everything in their path in an instant. But that's not the only way the wind redesigns the world around us.

The wind can transport small particles like silt and clay over large distances that, over time, add up to make a big difference. When the wind blows, sand-sized particles stay close to the ground at about a meter or less high. The process of these smaller particles being transported by the wind is called deflation. Larger particles remain on the ground and are called desert pavement. But all particles moved by the wind cause abrasion.

Abrasion is the mechanical scraping or wearing away of a rock surface from friction. That leads to things like ventifacts, which are polished rocks found in deserts. Desert varnish is the dark color on desert rocks as a result of abrasion. It happens specifically on stable rocks that don't get a lot of precipitation.

First, clay-sized particles are transported by winds that chemically react with other substances at high temperatures. Then a coating forms from iron and manganese oxides.

Sand dunes are those little hills of sand, and they're located in the landward direction of the beach. Sand dunes all take their shape from the wind too. They have a slip face, which is a steep face where the sand reaches the crest of the dune and follows down the steep side of the dune. Cross beds are formed when sand deposited in angles to the ground. And the barchans is the crescent shape due to the direction the wind blows.

Sand dunes also come in a bunch of different types. Transverse or coastal dunes are large scale sand ripples that look like waves on the ocean. Star-shaped dunes form in areas of constantly changing wind direction, creating several ridges from a single point creating the star shape for which they're named. Linear dunes form when there isn't much sand and the winds come together from different directions. And parabolic dunes form where vegetation partly covers the sand.

Sand dunes are not in a permanent place. They slowly move with the wind. But dunes aren't the only hilly landforms wind can shape.

A loess is an extremely fine-grained windborne deposit of silt and clay. Over time, they can form nearly vertical cliffs.

Now you know more about wind erosion and deposition. I bet this lesson was easy breezy.

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