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Curriculum Units by Fellows of the National Initiative

2020 Volume V: Caretakers versus Exploiters: Impacting Biodiversity in the Age of Humans

Ecological Effects of Strip Mining Coal on the Black Mesa Mine

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The demand for coal and strip-mining techniques can affect species biodiversity, and relates to humans as caretakers versus exploiters of the earth. During the 1960s through the 1980s, strip mining became the preferred way of mining in the USA. The term strip-mining precisely says what it does. It strips away vegetation with the topsoil and the overburden (layers of soil and rocks below the topsoil) to get to the coal. This newer mining method brings havoc to the land and the people who live on the land. The people, the wildlife, the water, native plants, vegetation used in traditional medicines, and ancient artifacts have been irreversibly changed.

Strip mining is occurring in previously undisturbed areas across the United States. Companies find coal beds clustered in thick strips in the earth. On the Dine Nation, strip mining is prevalent and seen as an indicator of progress. Peabody Coal Company, the largest coal corporation in the world, sought the coal in Black Mesa. Sixty-five thousand acres was leased to Peabody with the Hopi and Navajo (Diné) tribal leaders' agreement. Many residents on the mesa resisted, and yet a forced removal of families eventually happened.

The historical event of what strip mining did to the native people and their land is a curriculum unit our students need to know, so they can understand what corporations can do to people, land, water, vegetation, and wildlife. The effect of mines is still very evident today.

(Developed for General Science and Earth, grade 5; recommended for General Science and Earth)

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