Mountaintop Removal Mining  
by Kristina Van

The Rocky Mountains look like paintings from above, with luscious green trees covering the lower peaks. Rivers snake through the valleys, beginning to carve their way down to the ocean. A light mist hangs between each slope with the tops of the snow-capped mountains jutting into the sky. The setting sun provides a red and orange backdrop for the animals in the forests as they begin to settle for the night. Unfortunately, an aerial view of the Appalachian Mountains provides a different and alarming sight. Rocks and rubble replace the green trees. The rivers are nowhere to be seen, hidden underneath mounds of dirt. A haze of settling dust from a long day of work leaves a black layer on the houses in the valleys. What was once a proud mountain is now a lifeless plateau. This is the horrific result of Mountaintop Removal mining.

Mountaintop Removal (MTR) is a form of surface mining that is also the leading form of coal removal in the Appalachian Mountains (Glidden). It is done by first removing all topsoil, plants, and trees from the area that is to be mined. Explosives are then used to expose the underlying coal seams, often between 500 and 800 feet below the surface. Huge drills, called draglines, dig deeper into the heart of the mountain to extract the coal. Coal companies prefer using draglines when excavating coal because it requires much less human power to run these machines than traditional methods of excavation. The coal is then cleaned for safer burning and usage. The waste from cleaning the coal, however, is stored in what is essentially an open hole in the ground. The mountain is then reshaped into a plateau and grass is planted ("Learn More"). Though minimal efforts are taken to reshape and replant what was lost, the mountains and surrounding communities are severely affected by MTR and are never left the same. Bills such as the Appalachia Restoration Act aim to protect mining communities from the harm of MTR by regulating waste dumped into sources of drinking water and reducing MTR itself. Support for such bills is necessary in order to preserve our natural environment, and protect the towns and people in the surrounding areas of the Appalachian Mountains.

One of the reasons Mountaintop Removal is such a popular form of mining today is because it is one of the cheapest and fastest ways of extracting coal (Glidden 1362). Michael Shnayerson, author of the 2008 book Coal River, states that miners are able to extract one hundred percent of the coal from the seams of rock as opposed to only seventy percent of the coal in underground mining. Debra Glidden, in her Environmental Encyclopedia article titled "Surface Mining," suggests that capital costs of surface mines are at least half of what the development of underground mines cost (1361). Though MTR may be more productive in producing coal, it is imperative to look at how MTR is negatively affecting the environment and at other alternatives to obtaining coal. One must then ask if the pros of Mountaintop Removal mining outweigh the damaging effects it has on the environment and our people.

MTR produces a huge amount of waste and debris that pollutes surrounding communities (Mountain Justice). After using explosives to blast away the sides of mountains, debris coats the towns in valleys below. MTR also produces large amounts of sulfur from the coal. In 2009, the United States Environmental Protection Agency (EPA) stated that "exposure to high concentrations of sulfur dioxide can include effects on breathing, respiratory illness, alterations in pulmonary defenses, and aggravation of existing cardiovascular disease." In addition, sulfur emissions from coal mining can cause damage to historic buildings ("Sulfur Dioxide").

In addition to the debris that falls over the towns, MTR pollutes nearby rivers. Solid waste from mining is literally dumped into the valleys and streams below. Many harmful toxins such as iron, arsenic, and lead contaminate the rivers and streams (Mountain Justice). According to Glidden, one of the products of Mountaintop Removal is acid (1361). The acid and minerals from the runoff contaminate the water supply and make it extremely unsafe to consume. Many residents of nearby
communities suffer from "liver and kidney problems, various forms of cancer, and skin rashes" (Appalachian Voices) as a result of long-term exposure to such minerals and acids.

Other organisms are also directly affected by MTR. Another statement by the EPA said that pollutants in the water from MTR had a "negative impact on fish and macro invertebrates leading to a less diverse and more pollutant tolerant species" ("Mid-Atlantic Mountaintop"). The forests are being torn down before blasting. Compared to the hundreds of years it takes to grow such a forest, man cuts it down in less than a few months. Some animals are forced out of the way, migratory patterns of birds are disrupted, and the organisms that can't move out of the way quickly enough are killed. Although it is mandated by the Surface Mining Control and Reclamation Act of 1977 that miners must restore vegetation after reclamation of mining sites ("Surface Mining Control" 1363), the leveled mountains are often used as grazing pastures for animals (Glidden 1362)). The trees are replaced by grass which not only does not produce as much oxygen as trees, but also does not grow as well because of the acidic soil. The effects of MTR on all life in the surrounding areas are devastating.

Another extreme danger of Mountaintop Removal is that the liquid waste produced by MTR is stored in what is called a coal slurry impoundment. The waste is whatever material is leftover from the coal cleaning process, often a mixture of "water, coal dust, clay, and toxic chemicals such as arsenic, mercury, lead, copper, and chromium" ("Learn More About"). One impoundment can hold billions of gallons of waste from a single facility. Sometimes, due to lack of care to the structure of these dams, the impoundments will breach and flood entire the community. On February 26, 1972, 132 million gallons of coal sludge flooded Buffalo Creek Hollow in Logan County, West Virginia, with disastrous results: "125 were killed, 1,100 were injured, and 4,000 were left homeless" ("What is Mountaintop"). Because impoundments are often located less than a mile away from mining communities, many towns are in danger of seeing similar disasters. Mountaintop Removal mining is not worth risking the lives of innocent bystanders.

MTR miners worry that if we discontinue Mountaintop Removal, they will lose their jobs and not have any way to pay bills and care for their families. However, one of the reasons coal companies look to MTR as the preferred method of mining is because it does not require a large labor force. If we reintroduce underground mining to Appalachia, miners will find there will actually be a higher demand for miners (Glidden). Not only will there be more jobs, but miners will also earn a higher salary. Surface miners average a salary of $42,000 while underground miners average $73,000 (Surface miners; Underground Miners). Combining the development of renewable technology and using more environmentally-friendly forms of mining will create overall better lifestyles for mining towns in the Appalachian Mountains.

It is important to realize that the effects of Mountaintop Removal mining do not only affect the Appalachian Mountains. Although this form of mining is predominately used in the east, the streams and rivers flow all over the United States. Any area that the contaminated water feeds will be poisoned with the heavy metals and toxins of MTR. All areas of the United States are equally affected by MTR.

The view of the Appalachian Mountains from the eastern end of James Madison University at the end of each day is arguably one of the most beautiful scenes on campus. Without placing restrictions on Mountain Top Removal mining, however, future JMU students will no longer be able to witness the same beauty as students today. Instead of an orange glow over the mountains as the sun sets, students will only see evidence of America's current disregard for the beauty of Mother Nature. Though MTR is a very useful form of mining, we must realize that if we continue, we will no longer have any mountains to mine. We must fight to pass bills that will either put stricter regulations on MTR or get rid of it altogether. Otherwise, we will have to stand back and watch as our mountains literally crumble away.
Works Cited