

The beneficiaries of Preservation now have a new name in the lists — mining!

The August 1982 issue of *Scientific American* devotes 10 pages to an article by Corale L. Brierley on "Microbiological Mining," exploring the central role of bacteria in the leaching of copper from low-grade ore and other ways the minerals industry now stands to gain from the applications of novel methods of microbiological technology.

Sources include the swirling filaments of organic matter in the sulfurous hot springs of Yellowstone NP, made up of the fused cells of millions of microorganisms of various species. "Genetic manipulation of certain species found in such natural habitats may result in new strains with an enhanced capability for recovering nonferrous metals from sulfide ores or from metal-contaminated waste water," according to Brierley. Other microorganisms with extraordinary adaptability were found in the harsh volcanic environment of the Mount St. Helens crater.

The article describes the controlled use of microorganisms for the extraction of metals from ores and solid waste materials and the application of biological technology to the restoration of particulate-laden and metal-contaminated industrial waste water.
