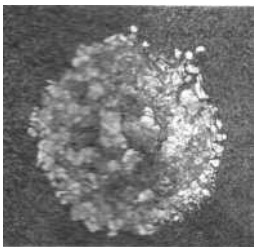


## Midas Microbes

Billions OF YEARS AGO, EARTH'S atmosphere contained almost no oxygen, so primitive organisms survived by metabolizing dissolved metals. They even breathed gold, reports microbiologist Derek Lovley of the University of Massachusetts at Amherst. Lovley and his colleagues study a group of primitive, bacterial-like organisms, called extremophiles, that thrive



in the scalding temperatures and bone-crushing pressures found at thermal vents on the ocean bottom. Similar microorganisms may have been among the earliest life forms on Earth. The researchers placed cells in a gold-infused solution and observed them converting ions in the water into tiny flecks of solid gold, which accumulate on the microbes' surfaces and eventually drop off. The discovery suggests that some gold ore deposits are actually biological waste deposited around ancient hydrothermal vents --Sarah C. Greene